The Occupational Wellbeing of Nurses

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Finola

Chapter one: Systematic Review

A Systematic Review: Organisational Interventions to Mitigate Against the Effects of Burnout in Nurses

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Abstract

Introduction: Organisational interventions are system level approaches that typically involve changes in work procedures or practices. There is a scarcity of reviews investigating organisational level interventions for burnout. This work systematically reviews the literature on organisational level approaches aimed at reducing and alleviating symptoms of burnout among nursing staff, highlighting methodological strengths and imitations.

Methods: A systematic search was conducted using Ovid Embase, Ovid MEDLINE(R), PsyINFO (EBSCO), CINAHL/EBSCO, and Cochrane Library. Search terms included: burnout, organisational, intervention, nurse and were adapted for the different databases. Methodological quality was assessed using the Crowe Critical Appraisal Tool (CCAT).

Results: Six studies were included in this review, none of which focused on prevention of burnout as their primary aim. Three of the six studies reported a statistically significant reduction in burnout scores following their intervention. Only one also reported enough data to calculate effect size and met criteria to be assigned a "high" quality rating following overall CCAT scores. The remaining studies were rated as low or moderate quality. Therefore, it was not possible to directly compare results across studies. There was some overlap in burnout measures utilised, with three of the six studies using the same measurement for burnout.

Conclusions: The effect of organisational change on the wellbeing of nurses is a complex, yet vital subject that deserves more rigorous research. Higher quality research, with clear agreed unanimity in terms of burnout measures, keywords and classifications is required to clarify the most successful primary interventions to prevent burnout among nursing staff.

Key words: Organizational, Burnout, Intervention, Nurse

Introduction

Nurses are expected to provide consistently high standards of patient care with patience and empathy, whilst managing a highly stressful and demanding environment with few opportunities to have a break, or to prioritise self-care. Unsurprisingly, it is reported that 56.5% of nurses have worked despite not feeling well enough to perform their duties, and 39.8% reporting illness as a result of work related stress (Survey Coordination Centre NHS, 2019). Predictably the wellbeing of healthcare staff correlates with the quality of patient care and safe clinical practice (Clough, Ireland, & March, 2017; Hall, Johnson, Watt, Tsipa, & O'Connor, 2016). Therefore, it is of utmost importance to ensure the wellbeing of staff to maintain the highest standard of care.

Inadequate staffing, unmanageable patient workloads, insufficient time to perform tasks, inadequate wellbeing support and conflicts with colleagues (Schwartz Centre for Compassionate Care, 2015) as well as frustrations with institutional policies and clerical work (Shanafelt & Noseworthy, 2017) have all been associated with healthcare worker burnout. Burnout refers to the emotional exhaustion (EE), depersonalisation (DP) or detachment from the job role a person may feel, as well as a sense of ineffectiveness or lack of personal accomplishment (PA) (Kaschka, Korczak, & Broich, 2011; Maslach & Leiter, 2016). It is this definition that is utilised for the classification of burnout in the 2019 revisions to the ICD-11 (World Health Organisation, 2019; World Health Organization, 2018).

Interventions

Interventions to alleviate and prevent burnout can be categorised as Primary, Secondary and Tertiary. Primary (organisational) interventions aim to reduce, modify or eliminate stressors (e.g. work design); Secondary prevention strategies target psychological or physical effects of stressors (e.g. relaxation strategies); and Tertiary strategies aim to promote rehabilitation from the negative consequences of stress, burnout or other mental health difficulties (e.g. counselling through occupational health).

For burnout prevention, a growing number of Secondary strategies have been explored, including Mindfulness (Duarte & Pinto-Gouveia, 2016; Gauthier, Meyer, Grefe Phd, & Gold Phd, 2015; Wang et al., 2017), yoga (Alexander, Rollins, Walker, Wong, & Pennings, 2015), exercise (Bretland & Thorsteinsson, 2015), Cognitive Behavioural Therapy and Emotional Regulation Training (Orly, Rivka, Rivka, & Dorit, 2012; Saedpanah, Salehi, & Moghaddam, 2016) and web-based approaches (Hersch et al., 2016). These individual-level interventions place the onus on the nurses to build new coping skills or mechanisms to better protect themselves from the contributory factors associated with burnout. There is a significant amount of literature on Secondary interventions which are arguably easier to implement for a trial study than Primary interventions. However, in routine clinical practice over the long-term, individual level interventions alone may be insufficient and uneconomical as they involve the continual training of new employees while not addressing key underlying factors contributing to burnout, such as those outlined above.

Primary organisational interventions are system level approaches that typically involve changes in work procedures or practices and are aimed at reducing job demands or risk factors within the work environment and increasing job control. While they may be more difficult to effectively implement and study, they could potentially have a widespread and enduring impact on the workforce and offer continuing value for money even in times of limited resources. However, there is a scarcity of reviews investigating organisational level interventions for burnout. Indeed, Public Health England commissioned a review of interventions to prevent burnout and recommended organisational level approaches, yet referenced only one study (Rickard et al., 2012) for this approach (Public Health England, 2016). An example of an organisational level intervention is that of Workload Intervention (Rickard et al., 2012), which over five years implemented changes addressing staffing shortages, training needs, provision of support and professional development for nurses across two hospitals.

Rationale

This study systematically reviews organisational interventions aimed at preventing symptoms of burnout in nursing staff. Synthesising this information will serve to

better inform service managers of some of the evidence to improve and maintain staff wellbeing, and will supplement existing systematic reviews which focus on individual level interventions. It is intended to equip managers with the knowledge to better protect their nursing workforce, which will serve to preserve the quality of care while supporting staff attendance and retention.

Objectives

1. To systematically review and appraise the literature on organisational level approaches aimed at reducing and alleviating symptoms of burnout among nursing staff, highlighting methodological strengths and limitations.

2. Identify the organisational interventions that have been studied in relation to burnout in nursing professionals and review the success of the interventions.

Method

Inclusion criteria

1. Participants must be registered nurses or midwives
2. Studies reporting burnout where rates are measured using a validated tool
3. Peer reviewed and published
4. Published in the English language

Exclusion criteria

1. Studies which do not report results for registered nurses separately to student nurses and care assistants
2. Individual-level interventions
3. Qualitative studies

Search Strategy

Initial scoping searches were conducted and search strategy and terms refined in consultation with a specialist librarian. The systematic searches were conducted in June 2019 through the following electronic databases: Ovid Embase, Ovid MEDLINE(R), PsyINFO (EBSCO), CINAHL/EBSCO, and Cochrane Library. The date of publication ranged from the commencement of the database until June 2019. The

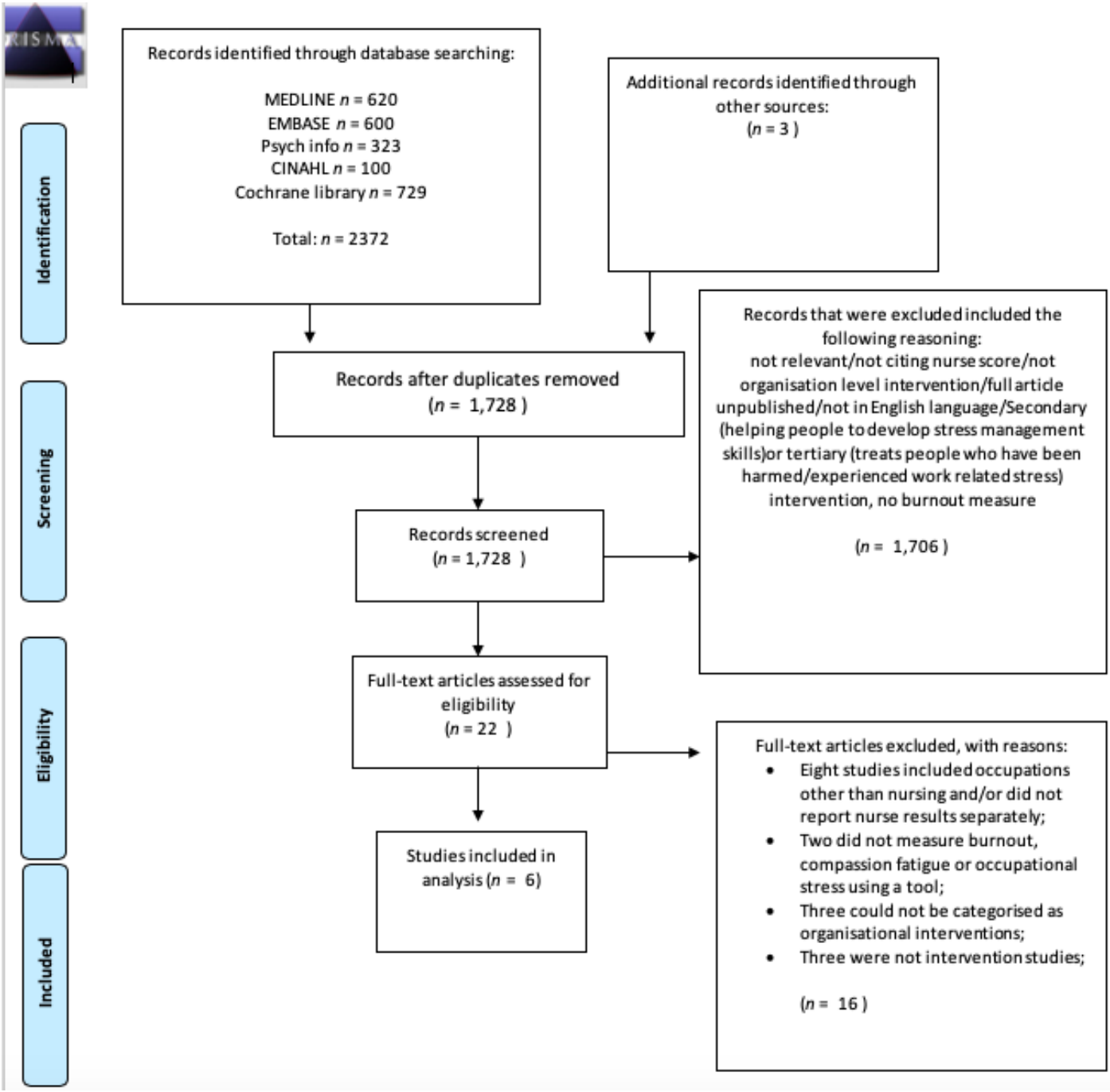
following search terms were adapted for the different databases, making use of truncation, synonyms and Americanised or English spelling differences (Appendix 3):

1. Burnout OR stress or mental fatigue OR compassion fatigue
2. Nurse OR nursing
3. Organisational OR management
4. Intervention

Screening process

Studies identified through the systematic search and the hand search were reviewed against the inclusion and exclusion criteria, as illustrated in the PRISMA diagram (Figure 1). Duplicates were removed, followed by a screening of study titles. The abstract of the papers that remained were reviewed and those that appeared relevant were included in a full review of the article. Only one of the three studies found through the hand search met criteria to be included.

Figure 1: PRISMA Flow Chart of selection process and results for inclusion within the systematic review. Adapted from Moher, Liberati, Tetzlaff, & Altman (2009)



Data extraction

A data extraction table was compiled for the six included studies (see Table 1 in Results). This table standardised the extraction of information across studies and provided a concise description of each study in terms of citation; design; sample characteristics; burnout measure and results.

Quality Appraisal

The Crowe Critical Appraisal Tool (CCAT) was utilised for all included studies (see Table 2). This tool can be used across research designs and provides a comprehensive user guide which can aid inter-rater reliability (Crowe, Sheppard, & Campbell, 2012). The CCAT is comprised of eight sub-categories and a total quality score. The author and a second rater, a qualified Clinical Psychologist, rated 50% of the papers to establish inter-rater reliability of the quality scores. There was 96% agreement across all of the CCAT items, indicating adequate reliability. Differences in opinion were resolved through discussion. Based upon the CCAT overall scores, quality rating descriptors were assigned to each reviewed article (Table 2).

Analysis approach

A narrative synthesis approach, with use of both textual and tabular formats, was adopted due to the methodological heterogeneity of the included studies. This approach has been identified to effectively capture and demonstrate findings when systematically reviewing studies which prove too heterogenous for direct statistical comparisons to be drawn (Popay et al., 2006).

Results

Study Characteristics

The characteristics of the included studies are summarised in Table 1 and discussed below briefly. None of the six studies investigated reduction in burnout as their primary aim, all included this as a secondary or tertiary aim. Primary aims included: improving the practice environment and nurse turnover (Adams et al., 2019), improving nurse outcomes and quality of care (Aiken et al., 2008), improving nurse practice and wellbeing (Aiken & Poghosyan, 2009), exploring relationships between burnout, empathy and sense of coherence with personality traits (Pålsson et al., 1996), reducing occupational stress and turnover (Rickard et al., 2012) and investigating the impact on management of critical incidents (Teasdale, Brocklehurst & Thom, 2000).

Publication dates ranged from 1996-2019. Designs included cross-sectional survey and quasi-experimental, mostly using two time points. Five studies employed a pre-

test, post-test survey design. Teasdale, Brocklehurst & Thom (2001) collected data at one time point across 11 randomly selected hospitals and community NHS Trusts in one region of England.

Two studies were conducted in England (NHS), one study recruited from both Russia and Armenia, and the remaining three studies recruited from Australia, Sweden or the USA respectively. Participants across studies totalled *n* = 1,670, with mean or actual age ranges of between 20-49 years, of which between 70-100% were female. Mean or actual years nursing experience ranged between approximately five years to over 30 years.

Measures of burnout utilised included the full Maslach Burnout Inventory (MBI, Maslach & Jackson, 1981), three studies used the Emotional Exhaustion (EE) subscale of the MBI to assess burnout and the remaining two studies used the Burnout Measure (BM, Schaufeli & Enzmann, 1993) and the Oldenburg Burnout Inventory (OBI, Demerouti, Bakker, Vardakou & Kantas, 2003) respectively.

Two studies identified clinical supervision (Pålsson et al., 1996; Teasdale, Brocklehurst, & Thom, 2001) as their study intervention. Clinical Supervision, the exchange between practising professionals which enables them to develop their professional skills (Butterworth & Faugier, 1992), is considered to be an organisational level intervention for the purposes of this study. This is because it can be implemented at systems level rather than as a Secondary or Tertiary response to burnout and identified articles met the inclusion and exclusion criteria. Two studies measured the impact of implementing the Magnet Recognition Programme, or similar (Aiken, Buchan, Ball, & Rafferty, 2008; Aiken & Poghosyan, 2009). The Magnet Recognition programme accredits hospitals with Magnet Status if they adhere to their 14 Standards which include quality of patient care, nursing excellence and innovation in practice. Two developed novel interventions, one was coined the Cultural Change Toolkit (Adams et al., 2019) and the other was referred to as a Workload intervention (Rickard et al., 2012). The duration of the interventions ranged between two months and five years.

Table 1: Characteristics of included studies

Citation, Location & Design	Participants & setting	Intervention	Burnout measure	Key findings for burnout
Adams et al. (2019), USA Pre-test and post-test design for data collection	Nurses; Emergency *N* =30 F: 21 (70%), M: 9 (30%) Age: mean 45 years[1] Nursing experience: mean 20 years[2]	Cultural Change Toolkit Two month duration Intervention summary: department gratitude board, thank you card program, practices suggestion box, daily leadership rounding and daily staff feedback	OBI[3]	Significant reduction in burnout p = 0.004 Mean burnout score: Pre: 4.808, Post: 4.463 Standard deviations not given.
Aiken, Buchan, Ball & Rafferty (2008) England Cross-sectional surveys at three time points (1999, 2000, 2002), comparison was drawn to survey results of nurses across 30 NHS Trusts	Nurses; Hospital **2000**: n = 128 F: 89%, M: 11% Mean age 39 years **2002**: n= 109 F: 95%, M: 5% Mean age 39 years **1999 (comparison group):** n= 3,984 F: 91%, M: 9% Years of experience were not reported	Magnet Standards Two year implementation period No specific details of the intervention given in text, other than stating implementation of the Magnet Standards which are: quality of nursing leadership, organisational structure, management style, personal policies and programs, professional models of care, quality of care, quality improvement, consultation and resources, autonomy, community and the hospital, nurses as teachers, image of nursing, collegial nurse-physician relationships and professional development.	EE[4]	Not significant P-value= N.S.[5] **2000:** Mean 22.53, SD 11.83 **2002:** Mean 22.23, SD 13.46 **Comparison** Mean 22.88, SD 11.08
Aiken & Poghosyan (2009) Russia and Armenia Cross-sectional survey at two time points.	Nurses; Hospital N = 859 [n = 460 Russian, n = 399 Armenian) **Russia** F: 99.1%, M: 0.9% Mean age 36.3 years Mean experience 15.2 years **Armenia** F: 99%, M:1 % Mean age 34.0 years Mean experience 12.8 years	American International Health Alliance (AIHA) initiatives Implementation over three years AIHA initiatives are designed to replicate the program known as Magnet Recognition (as in above table). No further details reported in text.	EE[4]	Significant reduction in EE among Russian nurses. No significant change for Armenian nurses **Russia** *P*=.05, Pre: mean 17.6, Post: mean 14.7 **Armenia** *P* = N.S.[5], Pre: mean 10.5, Post: 11.3 Standard deviations not given.
Pålsson et al. (1996) Sweden Quasi-experimental design, measured at two time points	Nurses; District N = 33 F: 100% **Supervised group n=21**	Clinical supervision sessions ranged from 4-9 sessions(1.5-2 hour duration) at 2-4 week intervals	BM[6]	Not significant **Supervised** Pre: Mean 2.7 (SD 0.6), Post: mean 2.5 (SD 0.7) **Comparison**

	Mean age 49 years Mean experience 24 years **Comparison group n= 12** Mean age 46.3 years Mean experience 21.8 years	Supervision was conducted by first author (registered nurse) and research assistant (psychotherapist & registered nurse)		Pre: mean 2.3 (SD 0.7), Post: mean 2.3 (SD 0.8)
Rickard et al.(2012) Northern Territory Australia Pre-and post-intervention questionnaire design, triangulating data from surveys and archival information	Nurses; Hospital N = 484 **H1**[7] **W1**[8] n= 103, F:84%, Mean age 42 years **H1 W2**[9] n= 173,F: 90%, Mean age 41 years **H2**[10] **W1** n = 75, F: 92%, Mean age 41 years **H2 W2** n = 133, F 92%, mean age 41 years Years of experience were not reported	Workload intervention Five year duration (2005-2010) Involved: • Training to assess compliance against rostering deployment principles • Assessment of nursing workload in all wards and units • Additional nursing positions and expansion of graduate programme to address job demand and shortfall • Supervision, support and professional development	EE[4]	Significant reduction in burnout **H1** Pre: mean 28.94, Post 20.77, *p*=<.01 Cohen's *d* = 0.64 **H2** Pre: mean 28.24, Post 23.89, *p*=<.01 Cohen's *d* = 0.3
Teasdale, Brocklehurst & Thom (2000) England Survey design at one time point	Nurses; Hospital/Community N = 211 F: 89%, M: 11% **Supervised** (n = 92) Mean experience 14.2 years **Unsupervised** mean experience 14.3 years Age not reported	Clinical supervision Provision of supervision: self-reported that they were receiving formal clinical supervision on a one-to-one or group basis	MBI[11]	Not significant **Supervised** mean 20.3 **Unsupervised** mean 22

[1] Approximately: reported as "early 20s to late 60s" (p.454, Adams et al., 2019). [2] Approximately: reported as "less than 5 years to 30 years or more" (p. 454, Adams et al., 2019).
[3] Oldenburg Burnout Inventory [4] Emotional Exhaustion Subscale of the Maslach Burnout Inventory [5] Non-significant, reported as NS in article (p. 3334, Aiken, et al., 2008; p. 171, Aiken & Poghosyan, 2009) [6] The Burnout Measure [7] Hospital one [8] Wave one [9] Wave two [10] Hospital two [11] Maslach Burnout Inventory

Methodological review of studies

Table 2: Crowe Critical Appraisal Tool (CCAT) Scoring

	CCAT Scoring					
	Adams, Hollingsworth & Osman(2019)	Aiken, Buchan, Ball & Rafferty (2008)	Aiken & Poghosyan (2009)	Pålsson et al. (1996)	Rickard et al.(2012)	Teasdale, Brocklehurts & Thom (2001)
1. Preliminaries	4	3	2	4	4	3
2. Introduction	4	3	3	3	4	3
3. Design	2	2	2	3	4	2
4. Sampling	3	2	3	3	3	4
5. Data Collection	2	2	1	3	3	3
6. Ethical Matters	1	2	1	3	3	1
7. Results	2	2	2	4	4	3
8. Discussion	2	2	4	4	4	3
9. TOTAL (Full mark 40)	20	18	18	27	29	22
Quality descriptor	low	low	low	moderate	high	moderate

CCAT quality rating descriptors were assigned for total scores as follows: total score 0-20 = low, 21-27 = moderate and 28-40 = high. Areas of weakness observed within the preliminaries category lay in lack of clarity of reported participant in numbers in the abstract in relation to the main body of the text (Aiken & Poghosyan, 2009) and lack of clarity and detail suitable for reproducibility (Aiken et al., 2008; Aiken & Poghosyan, 2009; Teasdale et al., 2001). Clear and concise writing was seen as a strength in some of the studies (Adams et al., 2019; Pålsson et al., 1996; Rickard et al., 2012) with aims and rationale broadly addressed well in all studies.

A limitation in two of the studies was their failure to adequately express the details of the intervention or how it was implemented (Aiken et al., 2008; Aiken &

Poghosyan, 2009) for example, reporting that Magnet standards were implemented with no indication in which order or how this was to be. Teasdale (et al., 2001) did not provide clarity of detail of their measured intervention due to not delivering it as part of their study, instead relying on the intervention of clinical supervision to be self-identified by the participants. In the main, choices of study design were justified and choices of measures, if not justified were consistent with the wider body of literature on burnout.

With regards to the interventions Teasdale, Brocklehurst & Thom (2001) was the only study not to provide the intervention as part of the study, and instead aimed to observe the impact of clinical supervision that was already in place for participating individuals.

Sampling was mostly by convenience, two samples were small (Adams et al., 2019; Pålsson et al., 1996), with others larger partly due to controls. Weaknesses arose in clarity of reporting participant numbers (Aiken et al., 2008), and lack of clarity or existence of control or comparison groups (Adams et al., 2019; Aiken & Poghosyan, 2009).

Methods and procedures of data collection were generally well justified across studies. Discrepancies in reporting arose in relation to missing data (Rickard et al., 2012) where respondents for burnout measures were inconsistent with total respondents, although this was clearer in tabular form; also lack of clarity around response rates for comparison groups (Aiken et al., 2008). Authors (Aiken & Poghosyan, 2009) noted their awareness of higher than expected response rates from Russia and Armenia at above 75%, with expected rates estimated to be around 56% for healthcare workers (Cook, Dickinson, & Eccles, 2009). Ethical awareness was also noted as a concern for the same authors, suggesting that particularly in Armenia, nurses may have been asked as a condition of employment to complete the surveys (Aiken & Poghosyan, 2009).

Results for burnout were relatively clearly tabulated or reported in most studies. Importantly, of the studies that reported significant results, effect sizes were either not given, or not enough information was given to calculate them (Adams et al.,

2019; Aiken & Poghosyan, 2009). One study that reported significant results evidenced these with adequate data (Rickard et al., 2012).

In two studies the discussion appeared too general and either lacked clearly described implications (Adams et al., 2019), or without specific conclusions or implications highlighted (Aiken et al., 2008). Others included good analytical discussion of results (Aiken & Poghosyan, 2009; Pålsson et al., 1996; Rickard et al., 2012; Teasdale et al., 2001).

Summary

Although none of the six studies focused on prevention of burnout as their primary aim, three of the six studies reported a statistically significant reduction in burnout score following their intervention.

Adams (et al., 2019) reported OBI mean scores reduced from 4.808 to 4.463 as calculated using the Paired Student's *t*-test, *p*=0.004, following their intervention of the Cultural Change Toolkit. However, sufficient information was not provided to calculate effect size and the CCAT quality rating for the study was assigned as 'low'.

Aiken & Poghosyan (2009) reported mean levels of EE reduced for Russian participants from 17.6 to 14.7 using the chi-square test, p=0.05, following their intervention of AIHA initiatives. Inadequate data was given to calculate effect size. The authors also cautioned the reader in interpreting their findings due to ethical and authenticity of data concerns, highlighting that all burnout scores recorded through their research were lower than in any other hospital setting investigated. The CCAT quality rating was thus assigned as 'low'.

Rickard (et al., 2012) reported mean levels of EE reduced across both hospitals where the intervention was conducted from 28.94 to 20.77, *p*=<.01, Cohen's *d*= 0.64 (medium effect) in Hospital 1, and from 28.24 to 23.89 in Hospital 2, *p*=<.01, Cohen's *d* = 0.3 (small effect). This followed the conducting of the Workload intervention. The overall CCAT quality rating was classified as 'high'.

The remaining three studies (Aiken et al., 2008; Pålsson et al., 1996; Teasdale et al., 2019) did not report statistically significant findings in their measuring of burnout as per the EE, BM and MBI respectively.

Discussion

This review provides a narrative synthesis and quality appraisal of the six included studies, in relation to their use of organisational interventions in mitigating burnout among nurses, taking into account the methodological quality of the evidence.

Three studies cited significant reductions in burnout levels, but only one of these also reported enough data to calculate effect size (Rickard et al., 2012) and was the only study assigned a 'high' quality rating based on the CCAT total scores, therefore it was not possible to directly compare results across these studies.

Cross-study comparison was also inhibited by the variability of the burnout outcome measures utilised, with only half of the studies using the same tool. A limitation is thus highlighted in the available literature.

Initial searches found a substantial number of studies focused on one-to-one secondary prevention; these included interventions such as: yoga, CBT, relaxation and Mindfulness (Braun, Kinser, Deeb, Carrico, & Dow, 2016; Romano, Trotta, & Rich, 2013; Steinberg, Klatt, & Duchemin, 2016; Williams, 2008). It is accepted that organisational interventions may be more difficult to study and implement given political constraints within public services, which is particularly relevant in times of financial austerity. However, it may be that the focus on nurses' own responsibility for psychological wellbeing through the emphasis of developing resilience overlooks instances of under-staffing and the intensity of the emotional work required for the role (Traynor, 2018).

Fundamentally, all of the six included studies measured interventions that aimed to support nurses' wellbeing in an organisational based approach. However, there was variability of implemented interventions in terms of duration, ranging two months (Adams et al., 2019) to five years (Rickard et al., 2012) and type: clinical supervision (Pålsson et al., 1996; Teasdale et al., 2001), implementation of Magnet Recognition

Programme, or similar (Aiken, Buchan, Ball, & Rafferty, 2008; Aiken & Poghosyan, 2009), Cultural Change Toolkit focusing on enhanced communication and feedback for nurses (Adams et al., 2019) and an intervention which assessed nurse workloads, increased the number of employed nurses, implemented supervision support and formal professional development opportunities (Rickard et al., 2012). These interventions are consistent with literature that purport interventions addressing education, support, staffing shortages and resource mitigate against the effects of burnout for nursing staff (Rees et al., 2019).

A limitation of the measured intervention of supervision for one study (Teasdale et al., 2001) was reliance on self-reported identification of receiving supervision rather than ensuring a set standard and protocol by qualified supervisors (Billings et al., 2020). Pålsson and colleagues (1996), who also measured supervision, ensured the protocol and training of their supervisors, but highlighted that there is known difficulty obtaining significant difference in results when there are low baseline scores.

The Cultural Change Toolkit (Adams et al., 2019) enhanced methods of communication and feedback for nurses. Similarities to this approach in literature suggest that leaders being highly visible, open to communication, providing feedback in a variety of forms as well as allowing anonymous feedback from staff may be beneficial in mitigating burnout (Maben & Bridges, 2020).

Without having details of the procedure of the intervention for two of the studies (Aiken et al., 2008; Aiken & Poghosyan, 2009), it appears that the Workload Intervention study (Rickard et al., 2012) addresses more factors associated through their intervention than the other included studies.

Generally, evaluation of the evidence from this literature is restricted by the variation in methodological quality, design, settings, methods, and outcome measures. Literature inquiring into the impact of organisational interventions to prevent burnout among nurses would be enhanced and strengthened by further studies investigating and replicating interventions that provide supervision or support, learning opportunities and also addressing resource and staffing issues, such

as the Workload Intervention. Additionally, the research may be further strengthened if consensus is reached on outcome measures.

Strengths and limitations

This review has demonstrated that, despite the inherent difficulties in designing and evaluating organisational level interventions to reduce burnout among nursing professionals, there is a small but growing body of evidence with mixed findings but some tentative support for some approaches. To the author's knowledge, synthesis of findings of organisational interventions have not been published to date. Given the recognised risk of burnout in the wider healthcare workforce, the review holds potential implications that go beyond nursing.

While all studies met the review inclusion as Primary (organisational) intervention studies, there were notable variations in the specific types, extent and duration of included interventions, ranging from supervision to total organisational re-design and investment. However due to the increasing need to address and support the wellbeing of the nursing workforce it is important to bring together findings that go beyond placing the emphasis on occupation wellbeing on individual nurses, and instead consider the role of organisations in protecting their workforce.

The included studies recruited nurse participants from both community and hospital settings, drawing from a range of departments and job roles. Although more specific conclusions may have been possible to draw from studies that recruited nurses from a particular setting, such as solely oncology and emergency departments, which reportedly have the highest levels of burnout (Ortega-Campos et al., 2020), there are overarching similarities such as average shift length, night shifts and the role in caring for others that transcend specific settings for this population (Mcllory, 2019), and so conclusions may still be drawn despite the heterogeneity of the sample.

The findings from this search highlight discrepancies in how burnout as a construct is defined and measured, as well as how organisational interventions are conceptualised and indexed within research databases. It is acknowledged that the review findings are limited to a specific body of literature which sits within a wider

field of research addressing staff and nurse wellbeing at work generally, across different study and intervention types. For instance, research relating to staff supervision and other organisational approaches, such as the Magnet principles studied by Aiken et al. (2008) and Aiken and Poghosyan (2009), may not have been identified by the present review due to limitations of the sensitivity of the search strategy and specificity of the eligibility criteria. While efforts were made through scoping studies and consultation with a specialist librarian to enhance the sensitivity of the search strategy, and a hand search was conducted which identified an additional eligible paper, a future review in this area could broaden the scope through inclusion of additional search terms relating to different specific intervention types and keywords. The eligibility criteria could also be widened to include studies which look at other measures of staff wellbeing, besides validated burnout tools.

A further limitation of this review is that study selection and data extraction were completed by a single reviewer, which increased the possibility of bias and missed data. Measures were taken to minimise this which included discussion with a specialist librarian when developing search terms. Eligibility criteria also specified that papers must have been published in the English language which may have led to the omission of relevant studies.

Implications for future research

Greater consistency is needed in future research, using specific and validated measures of burnout such as the full MBI, which may aid comparison and evaluation of interventions.

There has been a paucity of studies investigating organisational interventions in the prevention of burnout among nurses, particularly when compared to individual level approaches. The methodological quality of available evidence for this review revealed limited quality evidence in this field, with only one study assigned as ‘high’ quality. The increase in interest in this topic given the current global pandemic may lead to new evidence emerging as a result. Future methodologically robust studies replicating existing studies such as the Workload intervention (Rickard et al., 2012),

and a consensus in outcome measures may provide quality studies for future systematic reviews to assess.

Implications for healthcare services

Interventions that aim to tackle the stressors of the roles such as being overworked, having career progression and having a sense of autonomy have shown some promise. It is important that employers take note of the strain that employees may be under, ensure adequate staffing and adapt work practices to protect the wellbeing of their staff, rather than relying solely on individual-directed approaches.

Conclusions

The effect of organisational change on the wellbeing of nurses is a complex yet vital subject that deserves more rigorous research. Only one study indicated significant improvement of low to moderate effect size and was deemed of high methodological quality based on the overall CCAT scores; this workload intervention (Rickard et al., 2012) reviewed nurse workloads, recruited additional staff to meet the demands of the service and put great investment into championing the career pathway of nurses. However, generalisable conclusions may not be drawn from one study alone and a significant limitation of this review was the overall quality of studies and divergence of measures and key terms used. It is therefore important to be mindful of effect sizes reported and interpret the results of this review with caution in the context of the studies' methodological quality. Additional research of high quality, with clear agreed unanimity in terms of burnout measures and keywords and classifications, are required to clarify the most successful primary interventions to prevent burnout among nursing staff.

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Chapter two: Major Research Project

Major Research Project: The Experience of Occupational Wellbeing in Neonatal Nurses

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Plain English Summary

Title: The Experience of Occupational Wellbeing in Neonatal Nurses

Background

Burnout can have a significant impact on staff working in highly physically and emotionally demanding roles, such as nurses working across Intensive, High Dependency and Special Care within neonatal services. Two concepts which aid the understanding of occupational wellbeing are psychological resilience and burnout. Resilience can be understood as the flexibility in response to changing situational demands, and the ability to recover from negative emotional experiences (Tugade, Fredrickson, & Barrett, 2004). Burnout, refers to emotional exhaustion (EE), depersonalisation (DP) or detachment from the job role, and a sense of ineffectiveness or lack of personal accomplishment (PA) (Maslach & Leiter, 2016).

Despite extensive research into the understanding and measuring of burnout, research exploring a shared process of resilience and burnout within the neonatal nursing context remains limited. There is a scarcity of qualitative studies exploring the lived experiences of neonatal nurses' occupational wellbeing. Exploring nurses' experiences and sense-making of occupational wellbeing may lead to a deeper understanding of the processes in managing adversity at work. It may also add to developing knowledge in enhancing organisational initiatives or policy to improve staff wellbeing in neonatal settings.

Aims and Questions

To provide an in-depth exploration of the lived experience of occupational wellbeing for neonatal nurses:

- How do participants identify their level of wellbeing at work?
- What do participants do to maintain their wellbeing at work?
- For participants, what contributes to poor wellbeing at work?
- What else can support the wellbeing of participants at work?

Methods

Eight neonatal nurses were recruited from an NHS region in the West of Scotland. Each participant took part in a semi-structured interview exploring their experiences of occupational wellbeing. Interpretative phenomenological analysis allowed the detailed examination of these lived experiences

Results

While attending to participants' unique perspectives, analysis explored commonalities and differences between transcripts, generating four interrelated themes within the superordinate themes of The Inherent Emotional Toll of the Nursing Role and The Interconnectedness of Resilience: competing demands, professional identity, feeling valued and meaningful connections.

Conclusion

This research contributes to the understanding of burnout in this staff group. It highlights factors positively and negatively impacting on staff wellbeing. The findings underline the importance of staff feeling valued, having emotional connections and learning and development opportunities to strengthen professional identity, ensuring their skills and wellbeing are prioritised within the workplace culture.

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Abstract

Background Burnout can have a significant impact on staff working in highly physically and emotionally demanding roles, such as those working across Intensive, High Dependency and Special Care within neonatal services.

Aims To gain a deeper understanding of neonatal nurses' experiences of occupational wellbeing and factors that support or impair it.

Methods Eight neonatal nurses took part in a semi-structured interview exploring their experiences of occupational wellbeing, analysed through Interpretative phenomenological analysis (IPA).

Results: Analysis generated four interrelated themes within the superordinate themes of The Inherent Emotional Toll of the Nursing Role and The Interconnectedness of Resilience: competing demands, professional identity, feeling valued and meaningful connections.

Conclusions: This research highlights factors positively and negatively impacting wellbeing in this staff group. It underlines the importance of staff feeling valued, having emotional connections and learning and development opportunities to strengthen professional identity, ensuring their skills and wellbeing are prioritised within the workplace culture.

Key words: nurse, burnout, resilience, IPA, occupational-Wellbeing,

Introduction

Occupational wellbeing is a concern in the NHS, one which impacts organisational functioning, staff retention and patient safety. The wellbeing of healthcare staff has been found to correlate with the quality of patient care and safe clinical practice (Clough, Ireland, & March, 2017; Hall, Johnson, Watt, Tsipa, & O'Connor, 2016). There are a number of factors which may influence nurse wellbeing. Two concepts which aid the understanding of staff wellbeing are psychological resilience (McCain, McKinley, Dempster, Campbell, & Kirk, 2018) and burnout (Maslach & Leiter, 2016).

Psychological resilience and burnout are associated concepts. Resilience can be understood as the flexibility in response to changing situational demands, and the ability to recover from negative emotional experiences (Tugade, Fredrickson, & Barrett, 2004). Conversely, burnout, as defined and researched by Maslach and colleagues, refers to emotional exhaustion (EE), depersonalisation (DP) or detachment from the job role, and a sense of ineffectiveness or lack of personal accomplishment (PA) (Kaschka, Korczak, & Broich, 2011; Maslach & Leiter, 2016). These domains form the most widely-used measure of burnout: the Maslach Burnout Inventory (MBI; Maslach & Jackson, 2019). It is this definition that is utilised for the classification of burnout in 2019 revisions to the ICD-11 (World Health Organisation, 2019; World Health Organization, 2018). It has also been associated with phenomena including compassion fatigue, vicarious trauma and depression (Guzzi, 2019).

Various models for explaining burnout and resilience have been put forward. Of particular relevance to the current study is the theoretical model of Managing Exposure which conceptualises resilience and burnout as aspects of an underlying process in response to challenges at work (Jackson, Vandall-Walker, Vanderspank-Wright, Wishart, & Moore, 2018).

The Managing Exposure model (Jackson et al., 2018) understands resilience and burnout as part of a single process for managing exposure to occupational adversity. The process is triggered by a perceived problem resulting from macro (systems including policy, job stability and health care), meso (unit culture, practical concerns and nature of critical care nursing) or micro level (interpersonal factors) adversity. It identifies awareness of the trigger as the driver for the resilience or

burnout process. This model defines four distinct categories which are important to consider: thriving, resilience, surviving and burnout. Additionally, techniques for managing exposure to adversity included behaviours categorised as protecting, processing, decontaminating and distancing.

Further, research has indicated females may be more susceptible to burnout or stress than males (Cañadas-De la Fuente et al., 2015; Jones, Hocine, Salomon, Dab, & Temime, 2015). There may be a number of reasons for this including burden of parental responsibilities and social attitudes. In a neonatal setting where staff are often females of child bearing age, their own birth stories or personal experience of miscarriage, for example, may impact their approach to end-of-life issues (Poncet et al., 2007), ethical decision making and observing suffering of patients and their families (Epp, 2012; Poncet et al., 2007), potentially increasing susceptibility to burnout.

Neonatal care is an emotionally, intellectually and physically demanding working environment in which staff are at risk of burnout (Prapanjaroensin, Patrician, & Vance, 2017). Studies of healthcare professionals in intensive care settings, including neonatal services, have reported a wide range of burnout prevalence ranging between 27-86% (Bellieni, Buonocore, Rosanna, Righetti, & Iacoponi, 2012; Poncet et al., 2007; Tawfik et al., 2017; Wilkinson, Whittington, Perry, & Eames, 2017). Such a large range of prevalence may be due to differing working environments of participants; additionally, differing measures have been used to assess prevalence of burnout. Indeed, the guidance for the MBI (Maslach & Jackson, n.d.) stipulates that the tool should not be used to categorise burnout per se but understood on a continuum to assess the levels of EE, DP and PA, with higher levels of EE and DP and lower levels of PA associated with higher levels of burnout.

There have been conflicting findings from research as to which conditions may mitigate burnout. For example, having children has been found in some studies to correlate with higher levels of burnout (Bellieni et al., 2012); it has been suggested that this may be due to the responsibility of having children and managing work and family life. Conversely, in other studies, nurses with children have reported higher levels of personal accomplishment (Ayala & Carnero, 2013), which is negatively

associated with burnout. It is suggested that this may be due to those individuals being older and more emotionally mature and stable which may have led to improved personal fulfilment (Cañadas-De la Fuente et al., 2015).

Studies relating to resilience and burnout specifically in neonatal nurses have examined coping strategies utilised by neonatal nurses. It has been found that Neonatal Intensive Care Unit (NICU) nurses manage their emotions at work through use of strategies including: social talk and humour with colleagues, taking breaks from work, withdrawing from the emotional pain of their patients, attending memorial services, reframing loss to find meaning in their work and even to transfer out of the NICU (Cricco-Lizza, 2014).

Studies have also highlighted the importance of the practice environment and perceived control over practice mitigating the impact of EE. For example, a descriptive correlational study of NICU nurses (n=75; Hawes, 2009) found that workload and problems with supervisors were the most significant nurse stressors. Other significant nurse stressors included: uncertainty towards treatment, conflict with physicians, problems with peer support, patients and families.

Despite extensive research into the understanding and measuring of burnout, research exploring a shared process of resilience and burnout within the neonatal nursing context remains limited. There is a dearth of qualitative studies exploring the lived experiences of neonatal nurses' occupational wellbeing conceptualised as a spectrum from thriving at work to burnout. Exploring nurses' experiences and sense-making of occupational wellbeing may lead to a deeper understanding of the processes in managing adversity at work. It may also add to developing knowledge in enhancing organisational initiatives or policy to improve staff wellbeing in neonatal settings.

Aims

The project aimed to provide an in-depth exploration of the lived experience of occupational wellbeing for neonatal nurses. It sought to elaborate participants' understandings of barriers and facilitators to wellbeing at work and ways of managing these, to deepen understanding of the underlying processes influencing

how and why healthcare workers exhibit burnout and resilience in relation to their work.

Method

Ethics

Ethical approval was obtained from the University of Glasgow, college of Medical, Veterinary and Life Sciences (MVLS) ethics committee, with a region in the West of Scotland providing NHS Research & Development management approval. Data protection and confidentiality adhered to research ethics guidelines and the General Data Protection Regulation (GDPR, 2018). All participants were made aware that interviews were recorded in order to create verbatim anonymised transcripts. Informed consent was sought prior to interview both verbally and on participant consent forms, highlighting that withdrawal was possible up until the data had been anonymised. Confidentiality was explained to each participant, including the limits thereof regarding risk to self and others.

The semi-structured interview schedule was not considered highly sensitive and risk of undue distress among consenting participants was deemed low. However, as part of the informed consent process, participants were advised of how to access support should they have experienced distress following their participation.

The Clinical Midwife Manager of a West of Scotland Neonatal unit and other relevant managers were contacted prior to the study taking place. It was established when and where staff could participate in the interview and how it would be facilitated in order to protect both patient care and the wellbeing of the nursing staff.

Recruitment

Participant Inclusion and Exclusion Criteria

Participant inclusion criteria specified that participants were Neonatal Nurses, having worked and been primarily based within the Neonatal Unit at Crosshouse Hospital for a minimum of one year. This helped to ensure that all participants had

an understanding of the working expectations and demands of the unit. All neonatal nurses participating were above the age of 18 and fluent in English.

Procedure

Information sessions for Neonatal Unit staff provided an overview of the study and chance for potential participants to ask questions. Staff were provided with an information sheet, with an opt-in contact form that allowed the primary researcher to follow up potential participants individually. Interviews were arranged at participants' convenience. Managerial support was secured to allow up to 90 minutes during working hours for participants to complete the interview, if they wished.

Participant characteristics

All participants were Neonatal Nurses, working across intensive care, high dependency and special care within a Maternity Unit in the West of Scotland. Participants salary pay grade ranged from Agenda for Change Band 5 to Band 8a. These have not been indicated in transcripts to protect participants' anonymity. Participants have also been allocated pseudonyms (Table 3).

Table 3: Participant characteristics

Participant	Landy	Jenna	Ava	Margaret	Isla	Myriam	Sophia	Olivia
Years qualified	>15	>15	>20	>30	>10	>20	>5	>30
Children	1	3	0	2	2	3	1	2
In a long-term relationship	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Justification of sample size

IPA studies are generally conducted with small, homogenous samples, commonly between six to eight participants due to the depth of the detailed case-by-case analysis (Smith, Flowers, & Larkin, 2013; Turpin, Barley, & Scaife, 1997). Eight participants were recruited for this study, in line with guidance on doctoral level projects (Smith et al., 2013). Data collection ended once concurrent analyses

indicated sufficient data were collected to address the research aims (Guest, Bunce, & Johnson, 2006).

Data collection

Semi-Structured Interview

The interview schedule was developed in line with relevant research and through consultation with academic and field supervisors and a Clinical Midwife Manager. The interview schedule guided the interviews with the flexibility for participants to prioritise points that they deemed central to their experiences. Prompts were used when necessary to elicit further detail relevant to the topics of interest. Interviews lasted between 45 - 90 minutes.

Analysis

Interpretative phenomenological analysis (IPA) allowed the detailed examination of participants' lived experience, giving opportunity for participants to elaborate freely and in depth, thus allowing the researcher to explore the participants' unique perspectives (Smith et al., 2013). This idiographic and phenomenological approach allowed the researcher to acknowledge their own perspective when endeavouring to make sense of the participant's views and sense-making, as captured by IPA's explicit attention to the double hermeneutic.

The IPA analysis followed six stages; beginning with verbatim transcription and immersion in the data. Initial notes of semantic content and the choice of language were made on the transcripts. Through these initial notes and codes, emergent themes developed, and interrelationships and connections were mapped. Charts of themes were developed first within and then between cases. This process was completed across all data collected to obtain a deeper and 'richer' interpretation (Smith et al., 2013).

Researcher Reflexivity

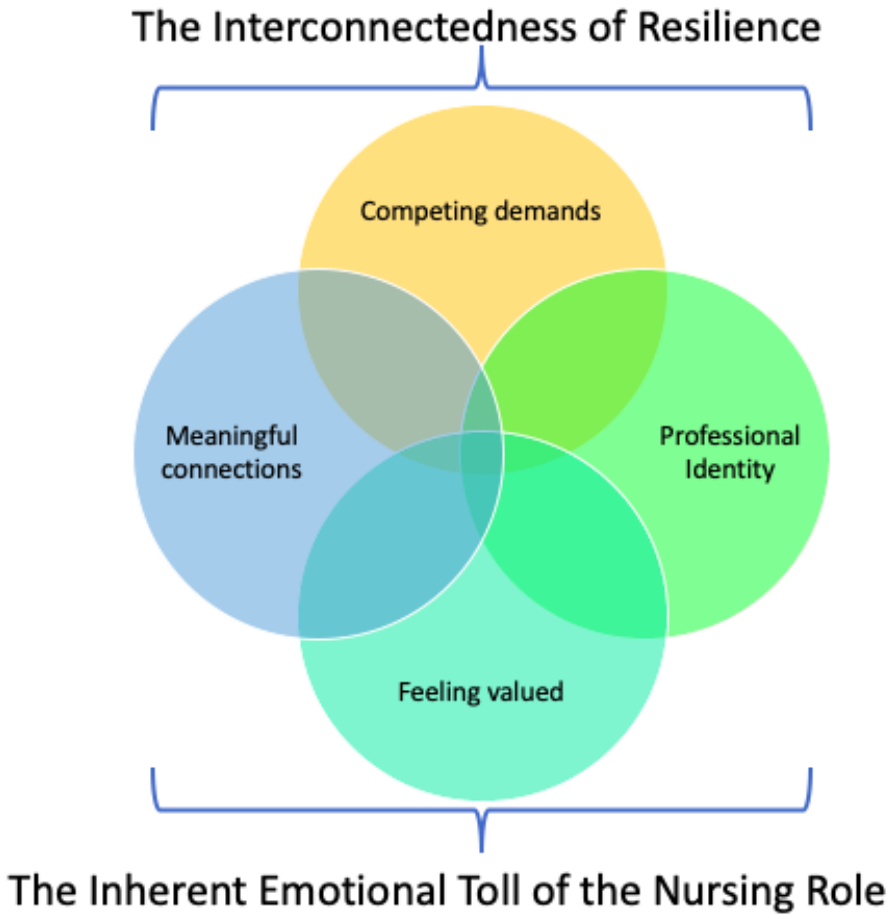
IPA acknowledges the researcher's role in interpreting the data and developing themes. The researcher has prior experience working therapeutically with individuals who experienced difficulties contributed to by poor occupational wellbeing and had previous placement experience within a neonatal psychology

setting. No participants were known to the researcher outside of the research context. As a working parent and trainee clinical psychologist, the researcher was mindful of how their personal and professional experiences interacted with the process of conducting and interpreting the interviews. In addition, the researcher conducted a systematic review of research exploring organisational interventions for prevention of burnout in nurses concurrently with this study. To ensure that their reading of existing, related research did not prejudice the emergence of themes particular to the current study reflective notes were kept to recognise any subjective views and emotional reactions to the interview content. These were also discussed with the research supervisor. This assisted the process of acknowledging and 'bracketing off' beliefs and expectations while analysing the data and identifying themes, as is suggested by Smith et al. (2013). The research supervisor reviewed a sample of transcripts and both supervisors engaged in discussion of developing themes to enhance the credibility of the analysis.

Results

The analysis resulted in the development of two superordinate themes (Figure 2): The Interconnectedness of Resilience and The Inherent Emotional Toll of the Nursing Role. This study interpreted that the participants' account of maintaining wellbeing at work entailed managing the inherent emotional toll of the nursing role: *"just the nature of the work that we do" (Isla, line 351*), by drawing upon the interconnectedness of resilience: *"if I feel well inside…I am more supportive to everybody else"* (Olivia, 83). This dynamic can be elaborated by four interrelated themes: competing demands, professional identity, feeling valued and meaningful connections. These themes are presented with substantiating excerpts from participant transcripts.

Figure 2: Diagram of identified themes



***"In overload"**: Managing Competing Demands*

All participants reported the struggle of managing competing demands, whilst striving for a satisfactory work-life balance. The ability to maintain this juggling act at work was described as being affected by the participants' demands and roles in their personal lives and vice versa. It was described that both within and outwith work, their sense of role and responsibility caring for others has propensity to overshadow their own self-care.

For some, managing their lives outside of work was viewed as the main challenge: "*Getting me to work is the most stressful part*" (Myriam, 146). Myriam described caring for three young children, organising childcare around changing shift patterns as well as managing domestic chores whilst working, as a challenge to her emotional wellbeing.

Among the participants, mothering roles and childcare needs were cited as important aspects of their lives outside of work: "*I'm spending my days off trying to get into a day routine for the sake of my son*" (Sophia, 289). They related the additional caring roles and responsibilities they took on within their own families as significantly impacting their occupational and personal wellbeing:

> *"It got so bad that I was kind of at the end of my rope, that I didn't know what to do, I couldn't function on a daily basis anymore…and it wasn't work related, it was purely just all the stress of home life, and kids, and shifts, and childcare and everything that was going on at home…"* (Myriam, 324)

Myriam described how the mental load of domestic responsibilities around varying shift patterns added strain to her emotional wellbeing.

> *"I am not very good at saying no, so I was in overload with jobs given to me at work and within my family at home I am the go-to and there were three members of my family very unwell. …I knew I didn't feel well, that I had lost the work-life balance, so even going away a weekend with friends was a tick, it was a job to me, I wasn't enjoying it and all of a sudden one day in the middle of [supermarket] I just started crying*" (Margaret, 13)

Margaret described her propensity to accept and take up additional roles and responsibilities both in her personal life and at work to the detriment of her own self-care needs, and ultimately her emotional wellbeing.

Basic selfcare was illustrated as a challenge to participants who spoke of putting the needs of their colleagues, patients and additional work tasks above their own basic needs. This was especially prominent in Jenna's interview:

> "*There's something else to do, something else to do; we're not good at taking time for self-care or wellbeing. It's just get onto the next thing and worry about that later.*" (Jenna, 220)

A notable challenge was the participants' perceived difficulty of finding or allocating time to take their breaks. These breaks were an opportunity for participants to eat

their lunch, use the toilet or rehydrate, as well as having a mental break from the tasks of the day. Participants described taking breaks as a challenge for them, but also had an awareness that not taking breaks had negative consequences:

> "*You can go a while without food and water…. pee stop… things like that you know, as well, and obviously when you are not feeding yourself, sometimes you start to drain your energy resources as well.*" (Ava, 71)

> "*There is times when you just can't go and leave, you've got drugs to do or whatever, and that does make people more ratty and stressed, if they're not getting fed, but again that is just the nature of the work that we do.*" (Isla, 348)

> "*Something that I'm not very good at is making sure I take some breaks. Erm and I know what I, you get caught up in the erm, the day runs away with you.*" (Olivia, 467)

It was expressed that it was a delicate balance between working shifts and getting enough sleep:

> "*You've got the tiredness aspect, two night shifts in a row and having to get [children] up for school, so maybe not getting as much sleep sometimes that can impact on things, so kind of got to deal with it, get on with it and feel rubbish for a few days.*" (Isla, 424)

Managing the impact of colleagues' emotional state was also perceived as an additional drain on wellbeing: "*You can't always plan for other people's moods*" (Isla, 582).

Managing these competing demands prompted some participants to focus on becoming organised and, for some, the need to have a sense of control over situations: "*We see ourselves as we've got to be in control, in control of everything*" (Jenna, 35); "*I feel I need to have something to give me a sense of control, something that I can tick and say I've done that, I've done that*" (Isla, 557). Participants highlighted how this need for control could result in taking on yet more

responsibilities and roles that were heightening demands of their time and impacting their wellbeing to an even greater extent.

***"Get myself back together"**: Professional Identity*

All participants gave examples of pressures and developments to their professional identity and the impact this had on their occupational wellbeing. It was described how the process of building or reconnecting with their sense of professional and caring selves helped them to connect more deeply with the families they support and their colleagues.

Participants reported the interaction between their professional behaviour and sense of professional identity on their occupational wellbeing. Participants described behaving in a manner that was in conflict to their perceived sense of professional identity when struggling with emotional toll: "*This is not me*" (Landy, 81), and a feeling of disconnect from their internal experiences: "*I didn't know entirely what was wrong with me…I knew I wasn't okay*" (Margaret, 21).

Also described was a finding or re-finding of their professional identity: "*Get myself back together*" (Jenna, 57), and a gaining in confidence of expressing their internal experiences: "*I wasn't embarrassed to say, you know, I hit a wall*" (Margaret, 132); "*once I got more knowledge and […] the confidence, I was gradually able to move on*" (Myriam, 279). This was described as a learning process: *"I feel quite happy with where I am now and what I'm learning, what I've learned. Erm, I feel like I can cope with things that come in now*" (Sophia, 321). Others identified key events in their personal lives building important skills for their working role:

> "*I feel my experience of what happened to me, erm, has been very grounding for what I do now, because I think I've got more empathy and compassion for people who've maybe got horrible things going on.*" (Olivia, 844)

***"Just a number"**: The Importance of Feeling Valued*

The importance of feeling valued was highlighted in the accounts of all participants. It was described how the feeling of being undervalued compounded their emotional

toll, whereas feeling valued, if even just through a small gesture, was emphasised as boosting their resilience.

Participants described difficulties involving work situations, processes, interdepartmental or service communications and policies. These were perceived as negatively impacting their feeling of being valued and thus their emotional wellbeing. Participants' interpretations of triggers for feeling undervalued varied and at times were opposing. Some felt the sickness policy was beneficial: "I have very much an understanding of what the Sickness Absence Policy is all about, it's a support" (Margaret, 450). However, its implementation led others to feel insignificant:

> *"I'm just a number, you're not a person, but their jobs are to have bums on seats, people in places, numbers ticked, not to think about the actual person and who's to be made to feel that way" (Landy, 601).*

Similarly, while Jenna described rarely needing sickness leave, on one occasion she called to inform the hospital co-ordinator, as per the procedure:

> *"It's no disrespect to that woman but, she was just like, 'Right, you're off sick, when are you coming back?' Like I was just a number, so you know you feel terrible like, you feel like you've let everybody down and you're not cared for, you're a number, and she was just ticking off a name on a sheet." (Jenna, 501)*

Others identified communication with interdisciplinary colleagues - "*certain ones that won't associate themselves, that are too good to be associating themselves with other staff*" (Landy, 521) - as impacting their feelings of value and worth. This was viewed to impact their working lives by feeling they "*weren't listened to*" and "*not taken seriously*" (Isla, 171) by other disciplines when they had concerns for a baby's welfare: "*It's as if they were saying 'oh yeah, ok', pooh-pooing us that idea, but they weren't taking on our wealth of experience" (*Isla, 209*)*. Others reported interactions with other disciplines led them to feel "challenged" by perceiving that members of other disciplines were negatively commenting on the work responsibilities of participants, culminating in the feeling of not being respected: "*I*

was doing everything I could do about it to the point where she was exceptionally rude to me in front of erm the whole team… and it really challenged me" (Olivia, 702).

Participants also identified feelings of not being valued or cared for through their interactions with nursing colleagues; "*they were treating me like a new start*" (Landy, 56). Others indicated feeling "*isolated*" and even "*betrayed*" (Olivia, 174 & 185) due to a perceived lack of support and interaction from their team, including at times when they felt their occupational wellbeing had noticeably deteriorated: "*people at work realised but nobody, nobody approached me*" (Margaret, 248).

Conversely, a number of participants highlighted the positive impact of feeling valued and cared for by simply being noticed and asked a question about their wellbeing. It was often reported that it was the Clinical Psychologist working within the unit that was asking these questions:

> "*She asked me if I was alright and I said: 'Well actually no.' She said: 'I thought that.' …And that really meant a lot to me that, erm, and it kind of reinforced, erm, yeah people care, people do care, erm, so that was nice*." (Olivia, 338)

Additionally, a sense of value was experienced by participants in different situations and forums, such as support from colleagues through 'WhatsApp' groups for those in specific roles: "*we all support each other, because we know how difficult it can be and working together, and with the families at times*" (Jenna, 199). Receiving feedback was also noticeably appreciated and gave a sense of respect, value and positive regard for participants when received from the families they support, their team, supervisors and managers:

> *"I got really nice feedback from one of the sisters… that was enough, to know that I'm still able, doing a good job, achieving good outcomes, and yeah I was happy, you're still working, still making a difference, you know, you're still doing what I should be doing, giving my all and it works, it's working,"* (Jenna, 682)

***"My work family"**: Meaningful Connections*

Meaningful emotional connections were referred to within all participant transcripts. Connectedness, emotional support, understanding and care were identified as integral to the maintenance of participants' emotional wellbeing. These meaningful connections from colleagues, family and loved ones were, at times, suggested to make the difference between the maintenance or deterioration of their emotional wellbeing. It was also identified that when participants felt they were coping well, they were more able to support colleagues, whereas when colleagues were perceived as not coping, this was viewed to have a damaging effect on everyone around them.

The modes and means of meaningful connections varied among participants. Some identified it as being through colleagues:

> "*I call it my work family and they all laugh at me; we have all got mums and sisters [at work].*" (Myriam, 699)

> *"I would talk to my colleagues more, and no disrespect to [partner], he just doesn't understand… so I would talk to my colleagues more than him if it was about, you know, if I go home upset he is very supportive but he wouldn't get it, wouldn't get it."* (Jenna, 557)

Jenna identifies the importance of feeling understood by someone who has professional experience and knowledge of their role as an important factor in the resilience boosting impact of the meaningful connection.

Others achieved connections through family and loved ones:

> *"I cried on the way home from work, spoke to my husband, obviously not giving details or anything… I will say 'rubbish day at work' …and then, you know, just let it all out and he gives me a big cuddle and that's it, I am fine, have a cup of tea and you know…..I have got it out my system and you know, I am usually fine after that…before I got married I always used to phone my dad. I used to phone home and say, 'right Dad, I need to speak to you today.'*

And he would say 'have you had a bad day?' and I would say 'yes' So, I think having that obviously helps" (Ava, 864)

"*When I go home I tend to just… my husband will know maybe if I have had a bad day so like I don't talk about it, I just say I have had a really bad day and I just need a hug and that's enough for me when I go home, and I am grateful that I've got my kids and I have the cuddles*" (Myriam, 300)

Olivia highlighted the overall importance of experiencing this emotional support to be able to provide support in her caring role effectively to others:

"[I] *talk to my husband and he hears all my chat and that's what nurtures my soul, erm, and helps me recover. So, I have to take myself away, heal myself and if I feel well inside and healed inside, I feel that I am more supportive to everybody else*." (Olivia, 81)

Sophia expressed appreciation for her mother as an emotional connection and support, but also alluded to factors of shared experience and understanding that were missing in this connection for her to feel fully comforted and supported:

"My mum's good, I can go and see her whenever I like, or if I've had a rubbish shift, but she still doesn't understand really, the extent of what I do and the things what we see and what can go wrong." (Sophia, 362)

Others sought support from the Clinical Psychologist within the unit and were at times signposted to, or independently sought, longer term support from other professionals. Landy sought emotional connection through a professional due to a described lack of other options: *"I ended up getting referred for some counselling and started on antidepressants; the counselling was great*." (Landy, 108)

Additionally, the unavailability of meaningful emotional connections, missed or lack of opportunities to connect may represent a toll on participant's emotional wellbeing: *"[Family member] had left so I didn't have [them] to offload to and I think that was another thing, that I didn't have that" (Margaret, 227).*

Discussion

Through IPA, this study sought to explore the occupational wellbeing among eight neonatal nurses. While attending to participants' unique perspectives, analysis explored commonalities and differences between transcripts, generating four interrelated themes within the superordinate themes of The Inherent Emotional Toll of the Nursing Role and The Interconnectedness of Resilience (Figure 2): competing demands, professional identity, feeling valued and meaningful connections.

Managing Competing Demands

The struggle of managing competing demands was highlighted by all participants. Participants identified maintaining the balance and containing the impact of demands both at work and in their personal lives as integral to their occupational wellbeing. Consistent with prior research, among the sample, being mothers themselves was viewed as both a positive and negative contributor to occupational wellbeing (Belleini et al., 2012; Ayala & Carnero, 2013; Cañadas-De la Fuente et al., 2015). Within this sample, negative impacts occurred when there was a greater load of domestic responsibilities without adequate support. Participants described juggling parenting, childcare and domestic responsibilities alongside variable shift patterns with sometimes very limited external support and the negative impact this had on their wellbeing which affected their work. On the other hand, children also provided some with important meaningful emotional connections in terms of affection and even emotional support from adult children, thus serving to enhance their wellbeing. Workplace practices which recognise the dependents of neonatal staff and level of support they have outside of work, in addition to considering the provision of structured shift patterns that allow for the absence of childcare, within reason, may serve to mitigate the risks of burnout for those in this position.

Importantly, participants reported the susceptibility to meeting demands for others and work prior to meeting their own self-care needs. In the relatively short period of each shift, essential needs such as food and drink were sometimes unattainable to the participants. Indeed, a culture of not taking necessary breaks was present throughout interviews. This is not a new phenomenon, with the Royal College of Nursing (RCN) in 2018 launching an initiative encouraging nurses to rest, rehydrate

and refuel to promote safety of care which can be impacted by nurses becoming dehydrated, impacting their cognitive functioning and level of fatigue (Royal College of Nursing, 2018), which could become unsustainable or result in unintended consequences. The participants of this study described not taking breaks so as to not negatively impact their patients in terms of the quantity of tasks or continuous monitoring that needed to occur, or the unavailability of sufficient staffing to allow breaks. Others alluded to how they felt they would not want to burden a colleague to cover for them to have a break. It is possible that fostering a culture in which self-care is appropriately valued may encourage neonatal nurses to prioritise their own wellbeing as a necessary foundation for performing at their best to meet the demands of the role and in turn support colleagues. Juggling competing demands can be viewed as an instance of actual or perceived threat to the nurses' resources, as is explained through the Conservation of Resources (COR) theory (Prapanjaroensin et al., 2017). COR theory proposes how resource gain contributes to resilience and how burnout can occur if there is a loss or threat, perceived or actual, to resources that are categorised by the model into four domains: objects, conditions, personal characteristics or energy (Hobfoll, 2012). The participants of this study described how their recourses were at threat, for example 'objects' such as food and hydration were at times unobtainable (Hobfoll, Freedy, Schaufeli, Maslach, & Marek, 1993).

Professional Identity

All participants gave examples of how their professional identities were challenged as well as having opportunities for professional growth and the impact of this on their occupational wellbeing. Participants explained how both personal and occupational learning experiences contributed to increased confidence in their professional identity and positively influenced their resilience. Feeling supported with new learning and practices, such as working in a new area, having access to continued learning and development opportunities, contributed to increased confidence and cohesion with professional identity. This is consistent with literature among psychiatric nurses that purports a positive correlation between sense of professional identity and job satisfaction (Kabeel & Mosa Eisa, 2017). Conversely, inadequate or diminished support in new roles has been highlighted as a significant

predictor of burnout (Yu, Jiang & Shen, 2016). This was further reflected by the current study findings in which participants described how lack of support in unfamiliar areas of work led to self-doubt and a breakdown of their aspired sense of professional identity, negatively affecting their occupational wellbeing. Participants described how the process of building or reconnecting with their sense of professional caring selves helped them to connect more deeply with the families they support and their colleagues.

The Importance of Feeling Valued

All participants highlighted the importance of feeling valued for their occupational wellbeing. Simple gestures, such as being asked about their wellbeing and receiving appreciative feedback, were reported to make a positive difference to participants' wellbeing through the perception of being cared for and their contribution to the service being recognised and valued. A recent study of (n=351) student nurses in the UK (Kinman & Leggetter, 2016) concluded that nurses who reported higher levels of receiving or having the opportunity to receive emotional support had lower levels of emotional exhaustion compared to those who reported lower levels of actual, or opportunity, for emotional support. The present study therefore contributes to existing research in identifying that even small gestures by colleagues, that can be identified as emotional support or meaningful connections, may have a positive impact on feelings of self-value and resilience.

Conversely, the feeling of being undervalued compounded their emotional toll. Specific procedures and policies were identified as contributing to this. For example, the participants were divergent in whether they felt valued or undervalued by the application of the rota. Some participants valued the opportunity to have flexibility in varying shift patterns. This meant they were able to work around the naturally varying plans of their personal lives such as parental engagement with their children's school activities or other sporting events, or other plans with friends and family. Others who struggled more with childcare found varying shift patterns more demanding, which in turn led them to feel they were not as supported by work and felt less valued.

Perceived inadequate or diminished support in new roles or areas of work and interpersonal factors such as a perceived lack of respect or support from individuals of the same or other disciplines were also conveyed, the latter consistent with research of NICU nurses (Hawes, 2009). These instances were described as leading to self-doubt or a breaking down of their identity as effective nurses and valued colleagues.

Meaningful Connections

Meaningful emotional connections were referred to as a moderating factor for occupational wellbeing by all participants. For some, a sense of shared experience and understanding were important. This was a notable factor within this group. Family and loved ones were described as providing support and a listening ear but were not perceived to truly understand the demands of the neonatal role. Participants reported friends and family lacked understanding of the emotive nature of their work, such as working with babies who may be going through substance withdrawal, serious illness, and even the small size and fragility of the babies, in addition to the added strain of being the babies' advocate.

Connections were not solely sought and provided through verbal interaction and written word, but important too was physical contact through embrace. These moments presented the participants with an environment they felt was safe to express their emotions, an important aspect of an emotionally demanding role. The benefit of this basic support has been observed through the COR theory recognising that access to psychological support and social opportunities (Aytekin, Yılmaz, & Kuğuoğlu, 2014), understood under the resource of 'Conditions', may serve to protect nurses' wellbeing.

All of the interviewees, irrespective of their level and years of experience, expressed the physical and emotional demands impacting their occupational wellbeing in the neonatal unit. Importantly, all participants also described psychological resilience in response to changing situational demands and successfully recovering from negative emotional experiences.

Implications for Services

Neonatal nurses work with the most vulnerable babies, advocating for their needs and wellbeing, as well as utilising knowledge of attachment theory to engage the parents with the babies' care. Within this research, areas were highlighted that enhanced and maintained as well as negatively impacted participants' wellbeing.

The sickness absence policy, for instance, was viewed by some participants as a supportive system, whereas others viewed it as devaluing. Improved implementation and communication of such policies in an individualised manner could aid their supportive function and enhance staff sense of value within the organisation.

Noticing and asking about the wellbeing of participants had a positive impact on their level of resilience. For this group, a Clinical Psychologist worked alongside them and was able to observe and question notable shifts in wellbeing, which participants valued. Conversely, missed opportunities where participants felt their wellbeing had noticeably deteriorated without perceived recognition from their colleagues or supervisors compounded the emotional toll.

Having opportunities to offload and seek emotional support from individuals who have an understanding of the role was important to participants in validating their feelings and providing support. It may be beneficial for services to develop specific forums for this within working hours.

Participants reported how competing demands of family commitments impacted their occupational wellbeing. For some, certain shifts were always difficult to organise childcare for. Services and staff could be encouraged to consider temporary flexible working arrangements such as stipulated in Section 33 of the NHS Terms and conditions of Service Handbook (NHS Employers, 2019). This may also give employees a greater sense of being valued as an individual, supporting their capacity for resilience.

Strengths and Limitations

Findings are based on the reflections of eight neonatal nurses who agreed to be interviewed. Detailed description of recruitment, data collection, analysis and context are given to aid interpretation of the transferability of findings. Efforts were made to recruit a relatively homogenous sample, yet participants differed in their life stage, personal circumstances, length of experience, pay grade and working responsibilities which are likely to have influenced their experiences.

This sample included only those employed in the unit who agreed to participate. It was not possible to undertake research with individuals who had left the post due to the experience of burnout, limiting the transferability of findings to those most seriously affected.

Future Research

This study highlighted several areas that would be beneficial to research in more depth. As previously stated, the experience or views of neonatal nurses who have left their work as a result of burnout was not explored. A more in-depth understanding of this would be important to see if there are any specific aspects that may lead neonatal nurses to leave their work permanently, and how their experience may differ from those who experience difficulties with their occupational wellbeing but continue to work.

The importance that this group of neonatal nurses placed on feeling valued, and the difference this made in enhancing and maintaining their occupational wellbeing, was highlighted in this study. Further exploration into neonatal nurses' feelings of perceived value both inside and outside of work could lead to increased knowledge and potential improvements in their wellbeing.

Conclusion

The findings illustrate the balancing act participants have in managing the inherent emotional toll of their many competing demands and roles, and developing and maintaining their resilience. Participants described a range of facilitators and

barriers to their occupational wellbeing. It also highlighted how some factors, such as sickness reporting policy, were perceived as positive by some and negatively by others, illustrating the complexity of effectively supporting staff and the role of individual circumstances and differences upon enhancing or maintaining staff wellbeing. This study found that key areas to enhance and maintain staff wellbeing among this sample included the importance of staff feeling valued, having the opportunity to have and make emotional connections, the availability of learning and development opportunities to enhance skills and strengthen professional identities and the need to prioritise staff wellbeing within the workplace culture.

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Appendix

Appendix 1: Applied Nursing Research - Author Guidance

APPLIED NURSING RESEARCH

AUTHOR INFORMATION PACK

TABLE OF CONTENTS

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DESCRIPTION

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Appendix 2: Examples of search Strategy - Medline

****

Database: Ovid MEDLINE(R) ALL <1946 to June 26, 2019>

Search Strategy:

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1 burnout.mp. or Burnout, Psychological/ (14665)

2 compassion fatigue.mp. or Burnout, Professional/ or Compassion Fatigue/ or Occupational Diseases/ (92347)

3 Nurses/ or nurs*.mp. or Nursing Staff, Hospital/ (707733)

4 Organizational Innovation/ or organi*.mp. (1607340)

5 intervention.mp. (561389)

6 1 or 2 (96180)

7 3 and 4 and 5 and 6 (188)

****

Appendix 3: Crowe Critical Appraisal Tool (CCAT) Form

Crowe Critical Appraisal Tool (CCAT) Form (v1.4) Reference Reviewer

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Citation	
	Year

Research design (add if not listed)		
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❑ Historical	…	
❑ Qualitative	Narrative | Phenomenology | Ethnography | Grounded theory | Narrative case study | …	
❑ Descriptive, Exploratory, Observational	A. Cross-sectional | Longitudinal | Retrospective | Prospective | Correlational | Predictive | …	
	B. Cohort | Case-control | Survey | Developmental | Normative | Case study | …	
Experimental	❑ True experiment	Pre-test/post-test control group | Solomon four-group | Post-test only control group | Randomised two-factor | Placebo controlled trial | …
	❑ Quasi-experiment	Post-test only | Non-equivalent control group | Counter balanced *(cross-over)* | Multiple time series | Separate sample pre-test post-test [no Control] [Control] | …
	❑ Single system	One-shot experimental *(case study)* | Simple time series | One group pre-test/post-test | Interactive | Multiple baseline | Within subjects *(Equivalent time, repeated measures, multiple treatment)* | …
❑ Mixed Methods	Action research | Sequential | Concurrent | Transformative | …	
❑ Synthesis	Systematic review | Critical review | Thematic synthesis | Meta-ethnography | Narrative synthesis | …	
❑ Other	…	

Variables and analysis		
Intervention(s), Treatment(s), Exposure(s)	Outcome(s), Output(s), Predictor(s), Measure(s)	Data analysis method(s)

Sampling									
Total size		Group 1		Group 2		Group 3		Group 4		Control	
Population, sample, setting											

Data collection (add if not listed)			
Audit/Review	a) Primary | Secondary | … b) Authoritative | Partisan | Antagonist | … c) Literature | Systematic | …	Interview	a) Formal | Informal | … b) Structured | Semi-structured | Unstructured | … c) One-on-one | Group | Multiple | Self-administered | …
Observation	a) Participant | Non-participant | … b) Structured | Semi-structured | Unstructured | … c) Covert | Candid | …	Testing	a) Standardised | Norm-ref | Criterion-ref | Ipsative | … b) Objective | Subjective | … c) One-on-one | Group | Self-administered | …

Scores									
Preliminaries		Design		Data Collection		Results		Total [/40]	
Introduction		Sampling		Ethical Matters		Discussion		Total [%]	

General notes

Appraise research on the merits of the research design used, not against other research designs.

Category Item	Item descriptors [☑ Present; ☒ Absent; ■ Not applicable]	Description [Important information for each item]	Score [0–5]
1. Preliminaries			
Title	1. Includes study aims ❑ and design ❑		
Abstract (assess last)	1. Key information ❑ 2. Balanced ❑ and informative ❑		
Text (assess last)	1. Sufficient detail others could reproduce ❑ 2. Clear/concise writing ❑, table(s) ❑, diagram(s) ❑, figure(s) ❑		
		Preliminaries [/5]	
2. Introduction			
Background	1. Summary of current knowledge ❑ 2. Specific problem(s) addressed ❑ and reason(s) for addressing ❑		
Objective	1. Primary objective(s), hypothesis(es), or aim(s) ❑ 2. Secondary question(s) ❑		
	Is it worth continuing?	**Introduction [/5]**	
3. Design			
Research design	1. Research design(s) chosen ❑ and why ❑ 2. Suitability of research design(s) ❑		
Intervention, Treatment, Exposure	1. Intervention(s)/treatment(s)/exposure(s) chosen ❑ and why ❑ 2. Precise details of the intervention(s)/treatment(s)/exposure(s) ❑ for each group ❑ 3. Intervention(s)/treatment(s)/exposure(s) valid ❑ and reliable ❑		
Outcome, Output, Predictor, Measure	1. Outcome(s)/output(s)/predictor(s)/measure(s) chosen ❑ and why ❑ 2. Clearly define outcome(s)/output(s)/predictor(s)/measure(s) ❑ 3. Outcome(s)/output(s)/predictor(s)/measure(s) valid ❑ and reliable ❑		
Bias, etc	1. Potential bias ❑, confounding variables ❑, effect modifiers ❑, interactions ❑ 2. Sequence generation ❑, group allocation ❑, group balance ❑, and by whom ❑ 3. Equivalent treatment of participants/cases/groups ❑		
	Is it worth continuing?	**Design [/5]**	
4. Sampling			
Sampling method	1. Sampling method(s) chosen ❑ and why ❑ 2. Suitability of sampling method ❑		
Sample size	1. Sample size ❑, how chosen ❑, and why ❑ 2. Suitability of sample size ❑		
Sampling protocol	1. Target/actual/sample population(s): description ❑ and suitability ❑ 2. Participants/cases/groups: inclusion ❑ and exclusion ❑ criteria 3. Recruitment of participants/cases/groups ❑		
	Is it worth continuing?	**Sampling [/5]**	
5. Data collection			
Collection method	1. Collection method(s) chosen ❑ and why ❑ 2. Suitability of collection method(s) ❑		
Collection protocol	1. Include date(s) ❑, location(s) ❑, setting(s) ❑, personnel ❑, materials ❑, processes ❑ 2. Method(s) to ensure/enhance quality of measurement/instrumentation ❑ 3. Manage non-participation ❑, withdrawal ❑, incomplete/lost data ❑		
	Is it worth continuing?	**Data collection [/5]**	
6. Ethical matters			
Participant ethics	1. Informed consent ❑, equity ❑ 2. Privacy ❑, confidentiality/anonymity ❑		
Researcher ethics	1. Ethical approval ❑, funding ❑, conflict(s) of interest ❑ 2. Subjectivities ❑, relationship(s) with participants/cases ❑		
	Is it worth continuing?	**Ethical matters [/5]**	
7. Results			
Analysis, Integration, Interpretation method	1. A.I.I. method(s) for primary outcome(s)/output(s)/predictor(s) chosen ❑ and why ❑ 2. Additional A.I.I. methods (e.g. subgroup analysis) chosen ❑ and why ❑ 3. Suitability of analysis/integration/interpretation method(s) ❑		
Essential analysis	1. Flow of participants/cases/groups through each stage of research ❑ 2. Demographic and other characteristics of participants/cases/groups ❑ 3. Analyse raw data ❑, response rate ❑, non-participation/withdrawal/incomplete/lost data ❑		
Outcome, Output, Predictor analysis	1. Summary of results ❑ and precision ❑ for each outcome/output/predictor/measure 2. Consideration of benefits/harms ❑, unexpected results ❑, problems/failures ❑ 3. Description of outlying data (e.g. diverse cases, adverse effects, minor themes) ❑		
		Results [/5]	
8. Discussion			
Interpretation	1. Interpretation of results in the context of current evidence ❑ and objectives ❑ 2. Draw inferences consistent with the strength of the data ❑ 3. Consideration of alternative explanations for observed results ❑ 4. Account for bias ❑, confounding/effect modifiers/interactions/imprecision ❑		
Generalisation	1. Consideration of overall practical usefulness of the study ❑ 2. Description of generalisability (external validity) of the study ❑		
Concluding remarks	1. Highlight study's particular strengths ❑ 2. Suggest steps that may improve future results (e.g. limitations) ❑ 3. Suggest further studies ❑		
		Discussion [/5]	
9. Total			
Total score	1. Add all scores for categories 1–8		
		Total [/40]	

Appendix 4: Semi-Structured Interview Schedule

V2: The experience and understanding of neonatal nurses' wellbeing at work
03.10.2019

Topic Guide for Interview

Topic guide

1. What does wellbeing at work mean to you?

2. From your experience, what challenges your wellbeing at work?
   Prompt: How do you manage this? What do you do?

3. What helps your wellbeing at work?
   Prompts: Are there things you do? your colleagues do? the neonatal service does…? What are other sources of support? /sources of stress?

4. What is your understanding of burnout?
   Prompt: Is it something you have identified with? Can you tell me any more about that?

5. What does resilience at work mean to you?
   Prompt: Are there things you do/don't do? Do you feel it's important?

6. Is there anything else that you think is important when it comes to wellbeing at work?

Appendix 5: Participant Information

Version 2: 28.08.2019

4: Participant Information

Participant Information

Research Title: The experience and understanding of neonatal nurses' wellbeing at work

Researcher: Finola Sparshott-McDaid

Academic supervisor: Dr Naomi White, naomi.white@glasgow.ac.uk

Field Supervisor: Dr Marisa Forte NHS Ayrshire & Arran, marisa.forte@aapct.scot.nhs.uk

Research undertaken for a Doctorate in Clinical Psychology, Mental Health and Wellbeing, Institute of Health and Wellbeing, University of Glasgow.

You are being invited to take part in a research study. Please read through the following information before deciding whether you would like to take part. If you would like further information or questions answered please feel free to contact me. Thank you for your time.

1. What is the purpose of the study?

The study will aim to understand and explain the experience of resilience, support and work stress among Neonatal Nurses. This will involve a one-to-one interview between the researcher and a Neonatal Nurse. An interview should last between 45-60 minutes and the data collection will aim to be complete within two months. The interviews will be analysed qualitatively using an interpretative phenomenological analysis which aims to understand the lived experiences of staff.

2. Why have I been chosen?

You have been chosen because you are a Neonatal Nurse who has worked within the Neonatal Unit in Ayrshire & Arran for at least one year. The research will involve between six and 12 Neonatal Nurses.

3. Do I have to take part?

No, it is up to you to decide whether or not to take part. If you do decide to take part, you will be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time prior to the data being anonymised, after which, it won't be possible to identify your

information. If you decide to withdraw, you do not have to give a reason and there will be no consequences.

4. What will happen to me if I take part?

If you choose to take part, the researcher will organise a time with you to conduct a 45-60 minute interview. You will be asked about your experiences of support, resilience and work stress within your role working within the Neonatal Unit. The interview will be recorded on a digital voice recorder and transcribed. Interview data will be backed up on a secure network. The researcher will travel to the participants' place of work, or offer telephone interviews and offer full flexibility in terms of available times for the interview.

5. **What are the possible disadvantages and risks of taking part?**

There may be an inconvenience to participation as interviews are expected to last up to 60 minutes.

Should you wish to make a complain about the study you may contact the main researchers supervisors Dr Marisa Forte or Dr Naomi White, contact details for whom are at the top of this information sheet.

Your signed consent form will be stored in a locked cabinet within a locked office within Crosshouse Hospital for the duration of the study (April 2020). All interview data will be anonymised however as interviews will only be conducted with staff from NHS Ayrshire and Arran Neonatal Unit there will still be a minimal risk that an individual's responses could be recognised.

There may be a risk that the content of the discussions is upsetting for you (e.g. recalling times when you may have felt stress at work). Clinical Psychologist Dr Marisa Forte will be available to offer support should you wish to take this up.

6. **What are the possible benefits of taking part?**

You will receive no direct benefit from taking part in this study. The information that is collected during this study aims to gain a deeper understanding of neonatal nurses' wellbeing at work. Exploring this may help you to recognise what challenges your wellbeing at work and to recognise factors which help your wellbeing. Disseminating the findings may help to develop good practice in this area.

7. Will my taking part in this study be kept confidential?

The University of Glasgow will keep your name, and contact details confidential and will not pass this information to NHS Ayrshire and Arran. The University of Glasgow will use this information as needed, to contact you about the research study, and make sure that relevant information about the study is recorded, and to oversee the quality of the study. Certain

individuals from the University of Glasgow and regulatory organisations may look at your data to check the accuracy of the research study. University of Glasgow will only receive information without any identifying information. The people who analyse the information will not be able to identify you and will not be able to find out your name, or contact details.

University of Glasgow will keep data from this study for ten years after the study has finished.

All information, which is collected about you during the course of the research, will be kept strictly confidential. The interview data that is collected will be identified by a pseudonym and any information about you will have your name and location details removed so that you cannot be recognised from it. Additionally, because the sample size is small, transcripts of the interviews will be redacted for any location information which may identify participants.

Should you express that you, or another person is at any risk of harm during the course of the interview it may be necessary to seek advice, or alert other services in order to protect yours or someone else's wellbeing. If this is the case you would be made fully aware of any precautionary steps to protect yours or someone else's wellbeing at that time.

8. What will happen to the results of the research study?

The results of the study will be written up to form part of a completed Clinical Psychology Doctoral dissertation. Additionally, the research will be written up with the goal of being published in a journal. Participants will be notified of research findings through the Neonatal unit.

The final report or any following publications may contain direct anonymised quotes from interviews to illustrate the data.

9. Who is organising and funding the research?

The research forms part of the Doctoral award conferred by the University of Glasgow funded by NHS Education for Scotland.

10. Who has reviewed the study?

The research proposal for this study has been submitted to the University of Glasgow College of Medical, Veterinary and Life Sciences Ethics Committee for ethical approval and to NHS Ayrshire & Arran for R&D management approval.

If you are interested in taking part, you can collect ad complete an opt-in contact form from the main reception within the Neonatal Unit posting it back in the study opt-in box. I will then contact you to offer you further information or arrange a suitable time to carry out the interview.

Thank you for your interest in this research.

Appendix 6: Participant Consent Form

Participant Consent Form

The experience and understanding of neonatal nurses' wellbeing at work

Researcher: Finola Sparshott-McDaid

Please initial:

I confirm that I have read and I understand the participant information sheet (Version 2: 28.08.2019) for this study and I have had the opportunity to ask questions and for those to be answered satisfactorily.	
I understand that my participation is voluntary and I have the right to withdraw without giving a reason.	
I understand that my interview will be recorded, transcribed and anonymised and that anonymised quotes from my interview may be used in the final report.	
I understand that the recorded interview will be transcribed word by word and the anonymised transcription will be retained for ten years after the completion of the study as per University of Glasgow procedure in accordance with Data Protection policies and regulations.	
I understand that taking part will involve a 45-90 minute interview which may take place during my working hours.	
I understand that if I withdraw from the study, my anonymised data that has already been collected will be used for the remainder of the study.	
I agree to participating in this study	

Appendix 7: MVLS Ethics Approval

Dear Dr Naomi White

MVLS College Ethics Committee
Project Title: *The experience and understanding of neonatal nurses' wellbeing at work*
200190065

The College Ethics Committee has reviewed your application and has agreed that there is no objection on ethical grounds to the proposed study.

We are happy therefore to approve the project, subject to the following conditions.

- Project end date as stipulated in revised application.
- No patient identifiable data are stored.
- The data should be held securely for a period of ten years after the completion of the research project, or for longer if specified by the research funder or sponsor, in accordance with the University's Code of Good Practice in Research: (http://www.gla.ac.uk/media/media_227599_en.pdf)
- The research should be carried out only on the sites, and/or groups defined in the application.
- Any proposed changes in the protocol should be submitted for reassessment, except when it is necessary to change the protocol to eliminate hazard to the subjects or where the change involves only the administrative aspects of the project. The Ethics Committee should be informed of any such changes.
- For projects requiring the use of an online questionnaire, the University has an Online Surveys account for research. To request access, see the University's application procedure at https://www.gla.ac.uk/research/strategy/ourpolicies/useofonlinesurveystoolforresearch/.
- You should submit a short end of study report to the Ethics Committee within 3 months of completion.

Yours sincerely

Dr Terry Quinn

Terry Quinn
FESO, MD, FRCP, BSc (hons), MBChB (hons)
Senior Lecturer / Honorary Consultant

College of Medicine, Veterinary & Life Sciences
Institute of Cardiovascular and Medical Sciences
New Lister Building, Glasgow Royal Infirmary
Glasgow
G31 2ER
terry.quinn@glasgow.gla.ac.uk
Tel – 0141 201 8519

Appendix 8: Business Group Approval

Psychological Services Business Group

NHS Ayrshire & Arran

Trainee Clinical Psychologist Major Research Project

TRAINEE NAME: Finola Sparshott-McDaid

Employed by NHS Ayrshire & Arran /

Not employed but proposal involves work within NHS Ayrshire & Arran
Employment Details

If Trainee is conducting this piece of work whilst on placement with Psychological Services, please complete:				
Placement:	Medical Paediatric and Forensic Psychology			
Placement Date:	From	May 2019	To:	May 2020
Clinical Supervisor:	Dr Marisa Forte			
Academic Supervisor:	Dr Naomi White			
All Trainees please complete:				
Comments: ***(note: must include reasons if Trainee does not consider that the project requires to be submitted for research ethical review)***	Proposal working title: The experience and understanding of neonatal nurses' wellbeing at work			
To be completed by PSBG:				
Proposal Received by PSBG:	17.04.19			
Allocated for Service Review to:	Dr Sharon Mulhern			
Recommendation to PSBG:	Well developed project – no concerns			
Decision of PSBG:	Approved x	Rejected	To be revised & re-submitted	
For Ethical Review & Management Approval	YES x	NO		
For Local Clinical Governance Approval	YES x			
Date	07/05/2019			
Date Ratified by PSBG	08/05/2019			
Summary Required by	No			

Appendix 9: NHS R&D Management Approval

Research & Development
56a Lister Street
University Hospital Crosshouse
Kilmarnock
KA2 0BB

Ms Finola Sparshott-McDaid
Mental Health and Wellbeing, U of G
1st Floor, Administration Building
Gartnavel Royal Hospital
G12 0XH

Date 24 December 2019
Your Ref
Our Ref CM/KLB/CI 2019AA053

Enquiries to Karen Bell
Extension 25850
Direct line 01563 825850
Fax 01563 825806
Email Karen.Bell2@aapct.scot.nhs.uk

Dear Finola

The experience and understanding of neonatal nurses' wellbeing at work

I confirm that NHS Ayrshire and Arran have reviewed the undernoted documents and grant R&D Management approval for the above study.

Documents received:

Document	Version	Date
Organisation Information Document	2.0	16/10/19
IRAS Form	5.13	07/10/19
Protocol	9.0	28/08/19
Semi-structured Interview Schedule	2.0	03/10/19
Opt in and support details	1.0	28/08/19
Participant Consent Form	3.0	18/09/19
Privacy Notice	2.0	-
IRAS schedule events excel template	1.0	-
Non-commercial - Local Information Appendix	2.0	13/10/19
University Ethics Approval	-	23/12/19

The terms of approval state that the investigator authorised to undertake this study within NHS Ayrshire & Arran is: -

- Ms Finola Sparshott-McDaid, University of Glasgow

The sponsors for this study are University of Glasgow.

This approval letter is valid until 24 August 2020.

Regular reports of the study require to be submitted. Your first report should be submitted to Dr K Bell, Research & Development Manager in 12 months time and subsequently at yearly intervals until the work is completed.

Please note that as a requirement of this type of study your name, designation, work address, work telephone number, work e-mail address, work related qualifications and whole time equivalent will be held on the Scottish National Research Database so that NHS R&D staff in Scotland can access this information for purposes related to project management and report monitoring.

In addition approval is granted subject to the following conditions: -

- All research activity must comply with the standards detailed in the UK Policy Framework for Health and Social Care Research http://beta.hra.nhs.uk/planning-and-improving-research/policies-standards-legislation/uk-policy-framework-health-social-care-research and appropriate statutory legislation. It is your responsibility to ensure that you are familiar with these, however please do not hesitate to seek further advice if you are unsure.

- Recruitment figures must be submitted to R&D on a monthly basis. If recruitment figures are not received timeously you will be contacted by a member of the R&D team to provide this data.

- You are required to comply with Good Clinical Practice (ICH-GCP guidelines may be found at www.ich.org/LOB/media/MEDIA482.pdf), Ethics Guidelines, Health & Safety Act 1999, General Data Protection Regulation (GDPR) and Data Protection Act 2018.

- If any amendments are to be made to the study protocol and or the Research Team the Researcher must seek Ethical and Management Approval for the changes before they can be implemented.

- The Researcher and NHS Ayrshire and Arran must permit and assist with any monitoring, auditing or inspection of the project by the relevant authorities.

- The NHS Ayrshire and Arran Complaints Department should be informed if any complaints arise regarding the project and the R&D Department must be copied into this correspondence.

- The outcome and lessons learnt from complaints must be communicated to funders, sponsors and other partners associated with the project.

- As custodian of the information collated during this research project you are responsible at all times for ensuring the security of all personal information collated in line with NHS Scotland policies on information assurance and security, until the secure destruction of these data. The retention time periods for such data should comply with the requirements of the Scottish Government Records Management: NHS Code Of Practice. Under no circumstances should personal data be stored on any unencrypted removable media e.g. laptop, USB or mobile device (for further information and

guidance please contact the Information Governance Team based at University Hospital Crosshouse 01563 825831 or 826813).

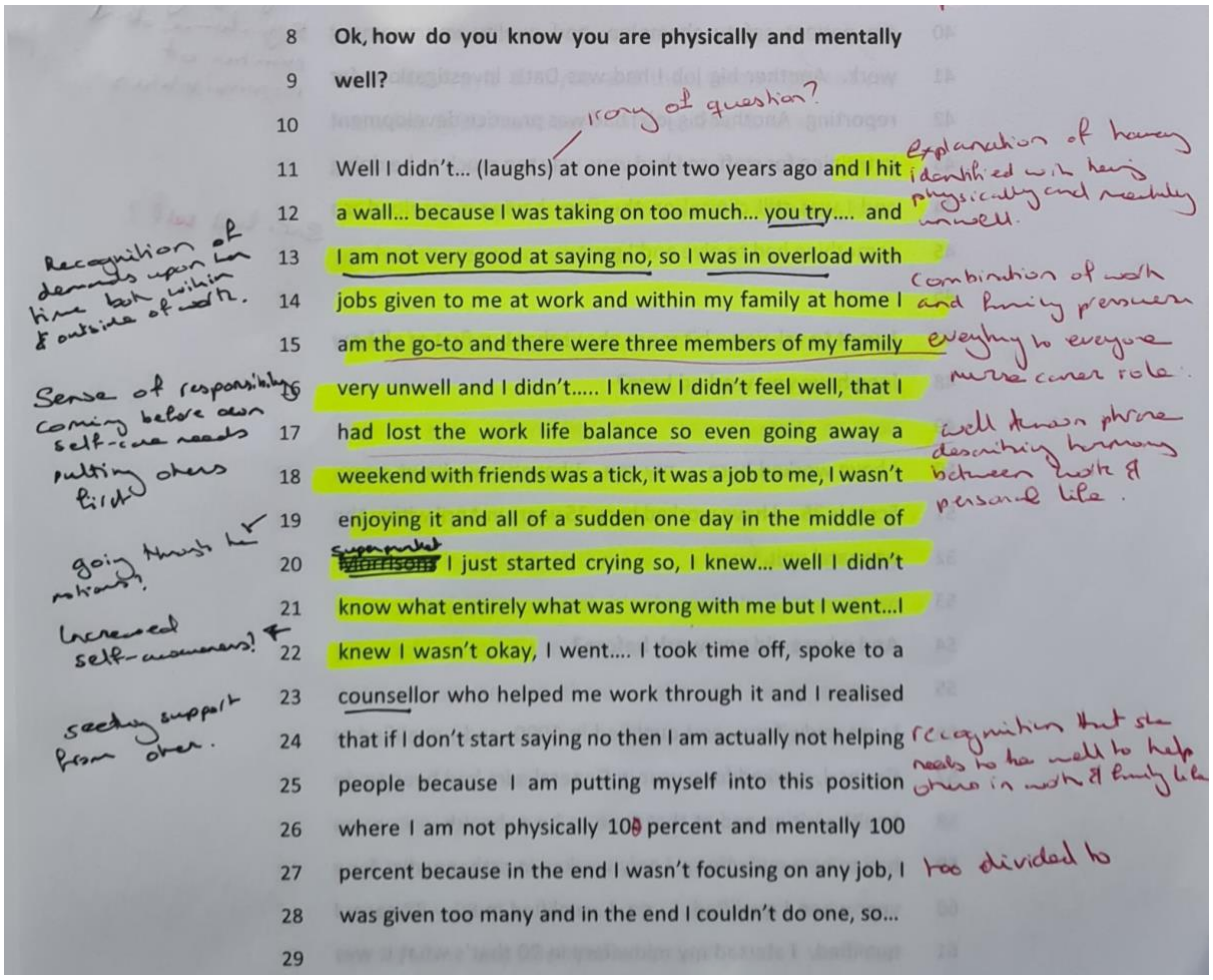
If I can be of any further assistance please do not hesitate to contact me. On behalf of the department, I wish you every success with the project.

Yours sincerely

Dr Crawford McGuffie
Joint Medical Director

c.c. Emma-Jane Gault, University of Glagow (sponsor contact)
Lesley Douglas, Finance, Ailsa Hospital
Information Governance, NHS Ayrshire & Arran
Dr Naomi White, University of Glasgow

Appendix 10: Sample of Analysed Transcript



Ok, how do you know you are physically and mentally well?

irony of question?

Well I didn't... (laughs) at one point two years ago and I hit a wall... because I was taking on too much... you try.... and I am not very good at saying no, so I was in overload with jobs given to me at work and within my family at home I am the go-to and there were three members of my family very unwell and I didn't..... I knew I didn't feel well, that I had lost the work life balance so even going away a weekend with friends was a tick, it was a job to me, I wasn't enjoying it and all of a sudden one day in the middle of ~~supermarket~~ Harrisons I just started crying so, I knew... well I didn't know what entirely what was wrong with me but I went...I knew I wasn't okay, I went.... I took time off, spoke to a counsellor who helped me work through it and I realised that if I don't start saying no then I am actually not helping people because I am putting myself into this position where I am not physically 10~~0~~ percent and mentally 100 percent because in the end I wasn't focusing on any job, I was given too many and in the end I couldn't do one, so...

Explanation of having identified with being physically and mentally unwell.

Recognition of demands upon her time both within & outside of work.

Combination of work and family pressures

Sense of responsibility coming before own self-care needs putting others first

everything to everyone nurse carer role.

well known phrase describing harmony between work & personal life.

going through the motions

Increased self-awareness

seeking support from other.

recognition that she needs to be well to help others in work & family life

too divided to

Appendix 11: Major Research Proposal

DOCTORATE IN CLINICAL PSYCHOLOGY

SUBMISSION FRONT PAGE

Major Research Project Proposal

Matriculation Number:

Title: The experience and understanding of neonatal nurses' wellbeing at work

Academic Supervisor: Dr Naomi White

Field Supervisor: Dr Marisa Forte

Date: 28/08/2019

Version: 9

Word Count: 3,192

For office use only

Abstract

Background Burnout can have a significant impact on staff working in highly physically and emotionally demanding roles, such as those working across Intensive, High Dependency and Special Care within neonatal services. **Aims** To gain a deeper understanding of neonatal nurses' experiences of occupational wellbeing and factors that support or impair it. **Methods** Around six to

eight neonatal nurses will be recruited from a region in the West of Scotland. Each participant will take part in a semi-structured interview exploring their experiences of wellbeing at work. Interpretative phenomenological analysis (IPA) will allow the detailed examination of these lived experiences. **Applications** This research will contribute to the understanding of burnout in this staff group and explore factors impacting on staff wellbeing and management of occupational stressors. It will serve to inform systemic practice including possible work-based interventions to mitigate the impact of burnout.

Introduction

Occupational wellbeing is a concern in the NHS, one which impacts patient safety, organisational functioning and staff retention. Nurse retention is essential for the NHS, with the number of registrations to the Nursing and Midwifery Register (Nursing & Midwifery Council, 2018) from the EU dropping for the second consecutive year. Additionally, the wellbeing of healthcare staff has been found to correlate with the quality of patient care and safe clinical practice (Clough et al., 2017; Hall et al., 2016). There are a number of factors which may influence an NHS worker's wellbeing. Two concepts which aid the understanding of staff wellbeing are psychological resilience (McCain et al., 2018) and burnout (Maslach & Leiter, 2016).

Psychological resilience and burnout are associated concepts. Resilience can be understood as the flexibility in response to changing situational demands, and the ability to recover from negative emotional experiences (Tugade et al., 2004). Conversely, burnout, as defined and researched by Maslach and colleagues, refers to emotional exhaustion (EE), depersonalisation (DP) or detachment from the job role, and a sense of ineffectiveness or lack of personal accomplishment (PA) (Kaschka et al., 2011; Maslach & Leiter, 2016). These domains form the most widely-used measure of burnout: the Maslach Burnout Inventory (MBI; Maslach & Jackson, n.d.). It is this definition that is utilised for the classification of burnout in 2019 revisions to the ICD-11(World Health Organisation, 2019; World Health Organization, 2018). It has also been associated with phenomena including compassion fatigue, vicarious trauma and depression (Guzzi, 2019).

Various models for explaining burnout and resilience have been put forward. Two of particular relevance to the current study are the Conservation of Resources (COR) theory (Prapanjaroensin et al., 2017) and the theoretical model of Managing Exposure which conceptualises resilience and burnout as aspects of an underlying process in response to challenges at work (Jackson et al., 2018).

COR theory proposes how resource gain contributes to resilience and how burnout can occur if there is a loss or threat, perceived or actual, to resources. Resources are categorised by the model into four domains: objects, conditions, personal characteristics or energy (Hobfoll, 2012). For example, **'objects'** refer to basic necessities such as home, food and clothing

(Hobfoll, Freedy, Schaufeli, Maslach, & Marek, 1993); salary and disposable income may contribute to this. **'Conditions'** include marital status, social relationships and good health. These condition resources may contribute to feelings of accomplishment at work (Hobfoll, 1989). Research indicates that recognition of work, access to psychological support and social opportunities (Aytekin, Yılmaz, & Kuğuoğlu, 2014) may also be understood under this resource. **'Personal characteristics'** such as coping strategies and support seeking are important resources. Additionally, personality factors such as low extraversion (Ahola, Toppinen-Tanner, & Seppänen, 2017) may be associated with burnout. **'Energy'** as a resource can be threatened by time pressure, this can decrease nurses' ability to be uncompromised by changes in other resources (Hobfoll et al., 1993). This may include under-resourced or understaffed departments, with long hours and high workloads (Oates & Oates, 1996).

Whilst COR captures a number of factors found to contribute to burnout and resilience, there is significant overlap between the model's conceptualisation of the four types of resources. For example, perceived control in the job role (Adriaenssens, De Gucht, & Maes, 2015) could be conceptualised as either Conditions or Personal Characteristics.

The Managing Exposure model (Jackson et al., 2018) understands resilience and burnout as part of a single process for managing exposure to occupational adversity. The process is triggered by a perceived problem resulting from macro (systems including: policy, job stability and health care), meso (unit culture, practical concerns and nature of critical care nursing) or micro level (interpersonal factors) adversity. It identifies awareness of the trigger as the driver for the resilience or burnout process. Mechanisms employed for protecting wellbeing in this model have been categorised as thriving, resilient, surviving or burnout. Additionally, techniques for managing exposure to adversity included behaviours categorised as protecting, processing, decontaminating, and distancing.

Further, research has indicated females may be more susceptible to burnout or stress than males (Cañadas-De la Fuente et al., 2015; Jones et al., 2015). There may be a number of reasons for this including burden of parental responsibilities and social attitudes. In a neonatal setting where staff are often females of child bearing age, their own birth stories or personal experience of miscarriage, for example, may impact their approach to end-of-life issues (Poncet et al., 2007), ethical decision making and observing suffering of patients and their families (Epp, 2012; Poncet et al., 2007), increasing susceptibility to burnout.

Neonatal nurses in the selected region work across Intensive, High Dependency and Special Care within the Neonatal Unit. It is an emotionally, intellectually and physically demanding working environment in which staff are at risk of burnout (Prapanjaroensin et al., 2017). Studies of healthcare professionals in intensive care settings, including neonatal services, have reported a wide range of burnout prevalence ranging between 27-86% (Bellieni et al., 2012; Poncet et al., 2007; Tawfik et al., 2017; Wilkinson et al., 2017). Such a large range of prevalence may be due to differing working environments of participants; additionally, differing measures have been used to assess prevalence of burnout. Indeed, the guidance for the MBI (Maslach & Jackson, n.d.) stipulates that the tool should not be used to categorise burnout per se but understood on a continuum to assess the levels of EE, DP and PA, with higher levels of EE and DP and lower levels of PA associated with higher levels of burnout.

There have been conflicting findings from research as to which conditions may mitigate burnout. For example, having children has been found in some studies to correlate with higher levels of burnout (Bellieni et al., 2012); it has been suggested that this may be due to the responsibility of having children and managing work and family life. Conversely, in other studies, nurses with children have reported higher levels of personal accomplishment (Ayala & Carnero, 2013), which is negatively associated with burnout. It is suggested that this may be due to those individuals being older and more emotionally mature and stable which may have led to improved personal fulfilment (Cañadas-De la Fuente et al., 2015).

Studies relating to resilience and burnout specifically in neonatal nurses have examined coping strategies utilised by neonatal nurses. It has been found that Neonatal Intensive Care Unit (NICU) nurses manage their emotions at work through use of strategies including: social talk and humour with colleagues, taking breaks from work, withdrawing from the emotional pain of their patients, attending memorial services, reframing loss to find meaning in their work and even to transfer out of the NICU (Cricco-Lizza, 2014).

Studies have also highlighted the importance of the practice environment and perceived control over practice mitigating the impact of EE. For example, a descriptive correlational study of NICU nurses (n=75; Hawes, 2009) found that workload and problems with supervisors were the most significant nurse stressors. Other significant nurse stressors included: uncertainty towards treatment, conflict with physicians, problems with peer support, and patients and families.

Despite extensive research into the understanding and measuring of burnout, research exploring a shared process of resilience and burnout remains limited. There is a dearth of qualitative studies exploring the lived experiences of neonatal nurses' occupational wellbeing conceptualised as a spectrum from thriving at work to burnout. Exploring nurses' experiences and sense-making of occupational wellbeing may lead to a deeper understanding of the processes in managing adversity at work. It may also add to developing knowledge in enhancing organisational initiatives or policy to improve staff wellbeing in neonatal settings.

Aims

The project aims to provide an in-depth exploration of the lived experience of occupational wellbeing for neonatal nurses. It will elaborate participants' understandings of barriers and facilitators to wellbeing at work and ways of managing these. This is intended to develop a broader understanding of the underlying processes influencing how and why healthcare workers exhibit burnout and resilience in relation to their work.

Plan of Investigation

Participant Inclusion and Exclusion Criteria

Participants will be recruited from a Neonatal unit in an NHS region in the West of Scotland. All participants will be NHS Neonatal Nurses, working across intensive care, high dependency and special care.

Participant inclusion criteria will mean that they must be Neonatal Nurses, having worked and been primarily based within the Neonatal Unit at Crosshouse Hospital for a minimum of one year. This would help to ensure that all participants would have an understanding of the working expectations and unit demands. Participants will be excluded if they are not fluent in spoken English or if the majority of their work takes place outwith the Neonatal unit. It is expected that all neonatal nurses participating will be aged 18 or above, any person under this age will be excluded from the study.

Recruitment Procedures

Information sessions will be provided at Crosshouse hospital for Neonatal Unit staff. This will include an overview of the study and a chance for potential participants to ask any questions

about the research. Staff will be provided with an information sheet, with an option to tick an opt-in contact form that will allow the primary researcher to follow up potential participants individually at a later date. The primary researcher will then contact interested parties to address any queries and arrange a suitable time for interview. Participants will have the opportunity to arrange an appointment at their convenience with the primary researcher, within the scope of the researcher's own working and study hours. Staff will be informed that interview data will be anonymised at point of transcription which will take place the following day to interview, and that they have the right to withdraw until this takes place. It will be set out and agreed with relevant managers that up to 90 minutes time will be granted during working hours for participants to complete the interview, should they wish to. This will be sought to be approved by the NHS region R&D. Alternatively, they can be interviewed by phone in their own time should the recording equipment and phone line be sufficient in capturing clarity of recording for verbatim transcription. Recruitment will continue until data saturation is reached, which is estimated to be between six to 12 interviews (Guest et al., 2006).

Research Procedures

A study information session will be conducted at Crosshouse neonatal unit for potential participants. At this point, participant information sheets will be distributed. Those who express interest will be able to arrange a time and date for interview. At the time of interview participants will be provided with consent forms for their perusal which will be discussed and collected prior to the start of the interview. A semi-structured interview schedule will be utilised as a guide for participant interviews.

Written consent will be obtained and participants will be reminded that their participation is voluntary and confidential and that they are free to withdraw prior to the interview taking place. Participants will be informed that once the data has been anonymised, it will no longer be identifiable for them to withdraw their participation.

Confidentiality will be explained to each participant, including limits regarding risk to self and others ensuring staff know any information they bring which is of concern would be taken to the relevant people. The study will also be reiterated that it is focused on coping with emotionally demanding work and not an opportunity for disclosure of unprofessional or illegal

actions and if they do have any concerns regarding that they should can consult the relevant manager. Participants will also be invited to ask any further questions.

Semi-Structured Interview

The initial interview schedule will be taken for consultation with nursing staff and the Clinical Midwife Manager. Through this consultation an initial schedule will be developed. The first interview will act as a pilot with the data from which still to be included in analysis. Following the pilot interview the schedule will be further refined if necessary, with any significant changes submitted as an amendment. This will serve to review the questions being asked to ensure they elicit the data which is relevant to the research question and topics as intended. The schedule will then be finalised with project supervisors. The interview schedule will guide the interview with the flexibility for participants to prioritise points that they deem to be central to their experiences. Prompts may also be used if necessary to elicit further detail relevant to the topics of interest. Semi-structured interviews lasting approximately 45 - 90 minutes will be conducted. Breaks will be offered during the interview, if required.

Data Management

Transcribed anonymised data will be stored on a secure network accessible to the primary researcher and academic and field supervisors, and retained for ten years as per University of Glasgow procedures. Participant consent forms will be stored in a locked filing cabinet in a locked office of the field supervisor at Crosshouse hospital and will not be linked to anonymised interviews. These will be retained for ten years after completion of study as per University of Glasgow procedure.

Data Analysis

Interpretative phenomenological analysis (IPA) is well suited to this research as it allows the detailed examination of a person's lived experience in a way which allows participants to step outside predefined categories set by a researcher, thus allowing the researcher to explore the participants' unique perspectives (Smith et al., 2013).

Analysis in IPA follows six stages beginning with verbatim transcription and immersion in the data. Initial notes of semantic content and the choice of language can be made on the transcripts.

Through these initial notes, emergent themes can be developed and interrelationships and connections are mapped. Charts of themes can then be developed within and between cases. This process is completed across all data collected to obtain a deeper or 'richer' interpretation (Smith et al., 2013; p82-107).

Justification of sample size

IPA studies are conducted with small, homogenous samples, commonly between six to eight participants due to the depth of the detailed case-by-case analysis (Smith et al., 2013; Turpin et al., 1997). The proposed study will seek to recruit approximately six to eight participants in line with guidance on doctoral level projects (Smith, Flowers & Larkin, 2009). Data collection will end once data saturation has occurred which is expected to be between six to 12 interviews (Guest et al., 2006) for qualitative studies.

Settings and Equipment

Interviews will be conducted either by telephone when the participant is not on site or in private clinic rooms at Crosshouse Hospital. Each interview will be audio recorded using a digital recorder. Recordings will be transcribed verbatim and anonymised, stored on a secure network. All identifiable information will be removed from transcripts to preserve the anonymity of participants. Recordings and transcripts will be treated in accordance with the General Data Protection Regulation (GDPR, 2018).

Health and Safety Issues

Researcher safety issues

The information giving sessions will be conducted in a hospital environment in daytime working hours and in accordance with relevant health and safety procedures. No lone-working will be required for this study.

Participant Safety Issues

As part of the informed consent process, participants will be advised of how to access support should they experience distress following their participation in the study and will be provided with a range of support numbers they may utilise. They will also have access to the Neonatal Clinical Psychologist for support should they wish.

Ethical Issues

Favourable ethical approval will be sought from the University of Glasgow MVLS ethics committee with the NHS region providing NHS R&D management approval. Data protection and confidentiality will adhere to research ethics guidelines and the General Data Protection Regulation (GDPR, 2018). All participants will be made aware that interviews will be recorded in order to create a verbatim transcript that will be anonymised. Informed consent will be sought prior to interview both verbally and on a participant consent form. Participants will be made aware that withdrawal will no longer be possible once data has been anonymised following the interview. As part of the informed consent process, participants will be advised of how to access support should they experience distress following their participation. The subject area is not highly sensitive in nature and distress is unlikely among consenting participants. However a range of support numbers will be provided and staff will have access to a Neonatal Clinical Psychologist for psychological support should they wish. The study will also be reiterated that it is focused on coping with emotionally demanding work and not an opportunity for disclosure of unprofessional or illegal actions and if they do have any concerns regarding that they should can consult the relevant manager. At the start of the interview the participant will again have the opportunity to decline to participate and will be reminded that all transcripts will be anonymised for analysis following the interview.

The Clinical Midwife Manager of the Neonatal unit and other relevant managers will be contacted prior to the study taking place. It will be established when and where staff may participate in the interview and how this will be facilitated in order to protect both patient care and the wellbeing of the nursing staff should the interviews take place within or outside of working hours.

Financial Issues

Recording and transcription equipment will be borrowed from the University Department. Photocopying costs and refreshments to be provided at the information session will amount to no more than £40.

Proposed Timetable

Time Scale	Research Component
February-March 2019	Submit proposal for formative feedback **22nd March** Including participant information, and consent forms and topics for schedule
March -May 2019	Draft Proposal Submission Supervisors to review Clinical & Research Governance submission
May-July 2019	Commence Systematic Review R&D Committees Ethics
June - October 2019	Briefing and information session, recruitment, interviews and transcription
July 2019 -November 2019	Analysis and write up Draft thesis submission Systematic review analysis draft
December 2019	Systematic review draft
January 2020	Draft thesis submission
February 2020	Final thesis submission
April 2020	Viva

Dissemination

The final report will include anonymised quotes from interviews. Participants will be notified of results through dissemination of thesis through the Neonatal Uni at Crosshouse hospital, the thesis will also be disseminated through Enlighten. It is possible that further dissemination of findings may take place through scientific publications.

Practical Applications

The research will seek to understand neonatal nurses' understanding and maintenance of wellbeing at work. This research is important as it will not only shed light on what may contribute to the risk of burnout, but will also identify mechanisms for managing personal wellbeing when faced with occupational stressors. It will serve to inform organisation and systemic changes to develop or improve work-based interventions to mitigate the impact of the

contributory factors to burnout. It may also add to the understanding of resilience in literature and further supplement the research on burnout. Furthermore, an IPA approach will move beyond the quantitative research on overall burnout prevalence levels and associated factors and build on the findings of Jackson et al.'s (2018) theoretical model of managing adversity, thus exploring in detail the underlying processes influencing how and why NHS workers exhibit burnout and resilience in relation to their work.

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Appendix

1: Health and Safety for Researchers Form

HEALTH AND SAFETY FOR RESEARCHERS

1. Title of Project	The experience and understanding of neonatal nurses' wellbeing at work
2. Trainee	
3. University Supervisor	Dr Naomi White
4. Other Supervisor(s)	Dr Marisa Forte
5. Local Lead Clinician	Dr Marisa Forte
6. Participants: (age, group or sub-group, pre- or post-treatment, etc)	Participants will be recruited from a Neonatal Unit within an NHS region in the West of Scotland. All participants will be NHS Neonatal Nurses working in the Neonatal unit which includes: intensive care, high dependency and special care.
7. Procedures to be applied (eg, questionnaire, interview, etc)	An Information session will be provided at Crosshouse hospital for Neonatal Unit staff. This will include an overview of the study and a chance for potential participants to ask any questions about

	the research. Staff will be provided with an information sheet. Potential participants will be advised to contact either the primary researcher or field supervisor, Dr Marisa Forte, to express an interest in participating. The primary researcher will then contact interested parties to arrange a suitable time for interview. Participants will have the opportunity to arrange an appointment at their convenience with the primary researcher, within the scope of the researcher's own working and study hours. Staff will be informed that interview data will be anonymised and that they have the right to withdraw. It will be set out and agreed with relevant managers that time will be granted during working hours for participants to complete the interview, should they wish to. Alternatively they can be interviewed by phone in their own time. All participants will be made aware that interviews will be recorded in order to create a verbatim transcript that will be anonymised. Recruitment will continue until the required number of participants has been met or the research team agrees that a saturation of themes has been achieved.
8. Setting (where will procedures be carried out?) i) Details of all settings	Information sessions and interviews will be conducted in a hospital environment within the Neonatal Unit, in normal working hours. They will be conducted in accordance with relevant health and safety procedures. No out of hours or lone-working will be required for this study.
ii) Are home visits involved	No

9. Potential Risk Factors Considered (for researcher and participant safety):	As above, information sessions will take place for staff participating in the questionnaire study. As

i) Participants ii) Procedures iii) Settings	part of the informed consent process, participants will be advised of how to access support should they experience distress following their participation however it is of note that the subject area is not highly sensitive in nature and distress is unlikely among consenting participants. However a range of support numbers will be provided and staff will have access to a Neonatal Clinical Psychologist for support should they wish.
10. . 10. Actions to minimise risk (refer to 9) i) Participants ii) Procedures iii) Settings	Participants will have access to the Neonatal Clinical Psychologist for support. Support numbers and services will be distributed on information forms should participants find the interview evokes any emotions they feel they need support for.

Trainee signature: .....Date:

University supervisor signature: ..... Date: .....