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Synopsis

The impact of redeployment during COVID-19 on nurse well-being, performance and retention: a mixed-methods study (REDEPLOY)

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Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

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Abstract

Background: Mass redeployment of nurses was critical to the National Health Service response to COVID-19. There remains little understanding of how redeployment was enacted during the pandemic and its impact on nurse managers' and nurses' mental health and well-being, job performance and retention. This study aimed to understand how nurse redeployment was managed prior to and during COVID-19; explore how nurses made sense of redeployment; and the impact on their mental health and well-being, job performance and retention intentions.

Design: A mixed methods approach utilising semistructured interviews, focus groups and surveys with nurse managers and nurses.

Setting: Three National Health Service acute hospital trusts.

Participants: Thirty-eight nurse managers and human resources advisors participated in interviews and focus groups. Sixty-three nurses who were redeployed or worked with redeployed nurses participated in interviews and surveys over three time points between March 2021 and February 2022.

Data collection and analysis: Interviews asked nurse managers about redeployment decisions and nurses about their redeployment experiences. Interview data were analysed using thematic and pen portrait analyses. The survey measured well-being, performance and intentions to leave. Multilevel modelling was conducted to explore relationships between variables over time.

Results: Seven themes were identified that illustrate the redeployment process, decisions made, and the impact on nurse managers and nurses. Nurse managers redeployed nurses in response to directives focused on numbers of staff and allowable staff:patient ratios, whereas their decisions were more often person focused. This raised logistical and emotional challenges for nurse managers and a disconnect in the levels of the chain of command regarding the needs of nurses. Most reported feeling like they were treated as a commodity, with redeployment having profound impacts on their mental health, well-being, job performance and retention. The longitudinal pen portrait analysis revealed three 'journeys' that represented how nurses made sense of their redeployment, underpinned by two themes: nurse identity and organisational identification. Journeys ranged from those who retained their professional identity and organisational identification (journey one) through to those who experienced a demolition of dual identities (journey

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three). While most staff in all journeys reported burnout, psychological distress, anxiety, depression and intention to leave their jobs, this was more frequent and severe for those experiencing journey three. These findings, together with stakeholder input, informed the development of 11 recommendations for policy and practice.

Limitations: Nurses from minority ethnic backgrounds are under-represented in the sample despite efforts to encourage participation. The quantitative data were planned to be collected at discrete time points during the COVID pandemic for each trust but gaps between data collection time points were compromised by the challenge of ongoing COVID waves and the different set-up times for each trust.

Conclusions and future work: Mass redeployment of nurses in response to the COVID-19 pandemic prioritised nurse staffing numbers over staff well-being. Redeployment had a profound impact on nurse managers and nurses with significant and concerning implications reported for nurse well-being, performance and retention. The recommendations for policy and practice will require active endorsement and widespread dissemination and would benefit from evaluation to assess impact.

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A plain language summary of this synopsis is available on the NIHR Journals Library Website https://doi.org/10.3310/EWPE7103.

Introduction

In February 2020, there were 335,171 nurses working in the National Health Service (NHS), approximately half of whom worked in acute hospital care.[1] These nurses, working on the frontline during COVID-19, experienced redeployment to specialties and teams outside of their current role and speciality areas. They dealt with huge changes to their ways of working, fearing for themselves and their family and friends and were haunted by the experiences of witnessing many patients dying.[2]

Nurse redeployment during the earlier phases of the COVID-19 crisis was extensive and varied. Some nurses were redeployed into high-risk areas[3] while others, at high risk or shielding, were moved to different duties, for example, supporting relatives' helplines. Evidence of the psychological distress experienced by redeployed nurses working through COVID-19 is beginning to emerge.[4–9] A survey conducted in 2020 indicated that 45% of redeployed nurses and midwives reported probable post-traumatic stress disorder (PTSD), with reported levels still high (29%) 3 months later.[5] In 2020, there was no understanding of the longer-term effects of nurse redeployment. There was also limited understanding of the processes of redeployment, how nurses made sense of their redeployment experience, and how this impacted on their mental health and well-being, job performance and retention. This research study aimed to address these gaps in the evidence base. An ethical lens was applied to studying the redeployment processes and decisions made. This was based on earlier unexplored discussions involving ethics theory which identified probable decision-making models of redeployment (e.g. volunteering or no choice) in response to the COVID-19 pandemic and the associated ethical consequences.[3]

Working through the COVID-19 pandemic and being redeployed were deviations from usual clinical practice for nurses, and what senior leaders expected of nurses. Sense-making theory[10] outlines how individuals make sense of unexpected experiences or events, such as redeployment and COVID-19, using their own mental schemas, cues extracted from the environment and social interactions[11] to aid understanding of the perceived fairness of processes used, and the way decisions are communicated.[12,13] Evidence shows that redeployment can lead to decisions to remain or leave the NHS[5] as well as affecting overall performance and patient safety. Maunder *et al.*[14] found that the trajectory of healthcare workers' recovery after the SARS crisis was primarily determined by perceptions of organisational support (training, protection and moral support) and maladaptive relationships with co-workers (anger, blame, self-blame and attachment anxiety). Thus, enhancing the positive and decreasing the negative outcomes of redeployment during COVID-19 may be less dependent on actual skill variety or job ambiguity, and more on nurse experience and how nurses make sense of their redeployment and their new team.[10]

Finally, as COVID-19 and redeployment increased the job demands on nurses, theory from job design research and organisational psychology[15–17] such as the job-demands resources model[18] may help explain the impact of redeployment on nurses' health and well-being. The job demands-resources model outlines that increased demands and fewer resources lead to increased stress and burnout. Collectively, the ethical,[3] sense-making[10] and job design research theories[15–17] underpin the programme theory applied in this study (see *Figure 1*).

This study involved two work packages (WPs). In WP1 we examined how the process of redeploying nurses was

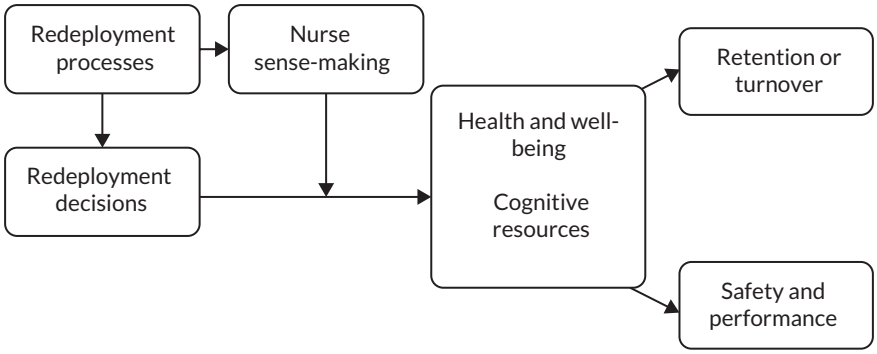

FIGURE 1 Programme theory.

managed prior to and during the COVID-19 crisis. In WP2 we drew upon sense-making theory exploring how nurses made sense of redeployment during the COVID-19 crisis and the effects it had on job performance and well-being-related outcomes (see *Appendix 1*, *Table 7* for full list and details of survey measures and *Report Supplementary Material 4* for the full list of survey items). Job design research suggests that these outcomes could be either positive (e.g. increased knowledge, skills[19]) or negative (e.g. increased ambiguity, decreased self-efficacy[20]), and the likelihood of one over the other will depend upon the sense-making process.[14]

Rationale for research

Redeployment during normal operations has been reported to have a range of benefits that can increase well-being and performance[21,22] but may also compromise health and well-being,[23] job satisfaction, motivation and retention.[20,24,25] Much less is known about mass redeployment during a crisis, but it might be assumed to be less likely to be voluntary, occur with less planning, and take place during challenging circumstances.

The crisis imposed by the COVID-19 pandemic required rapid and responsive scaling up of existing redeployment policies and procedures within the NHS.[25,26] How these were rapidly modified and operationalised, and their impacts on nurses, is largely unknown. This gap was of particular concern given the known longer-term impacts of previous pandemics and epidemics.[27] For example, SARS left hospital staff with high levels of stress, burnout, sickness and substance abuse.[14] Staff burnout is associated with lower patient satisfaction, less professionalism, higher levels of clinical errors, higher turnover and poor quality of care.[28–30] Together with the potential for staff shortages, through higher nurse turnover, which also impacts upon patient care, it is clear that generating knowledge about how best to redeploy and support nurses has important implications for the quality and safety of patient care in the future. This is important for planning care delivery during future pandemics. As redeployment (a flexible workforce) is likely to be an intrinsic part of modern healthcare delivery, understanding and addressing responses to ongoing redeployment strategies is also critical.

Over the last 2 years empirical evidence has begun to emerge that reinforces earlier concerns about the negative and more immediate impacts of the pandemic and subsequent mass redeployment on our workforce.[2,5,31–33] Three important gaps in our knowledge still remain, however. Firstly, the nurse vacancy rate (as of March 2022) currently running at 10% (n = 38, 972) has increased (slightly) from the same time last year (9.2%, n = 34,678).[1] At the same time, bed occupancy has consistently exceeded 85% since 2010, meaning that nurse-to-patient ratios are often at unsafe levels (www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/pressures/nhs-hospital-beds-data-analysis). This indicates very low tolerance for further rises in vacancy rates and that efforts to increase nurse retention are imperative. Understanding the implications of redeployment (and other changes relating to COVID-19) for nurse well-being, engagement, sickness/absence and retention will enable us to mitigate the impact on these outcomes and, in turn, on patient care.

The second knowledge gap relates to increasing redeployment within the NHS alongside rising nursing vacancies. While a flexible workforce is desirable for employers, the negative impacts and benefits for nurses themselves of being 'moved' to a specialty and/or team that are unfamiliar, and how best to reduce the negative impacts and achieve the benefits, are not understood. The large-scale redeployment of nurses during COVID-19 provides a unique opportunity to understand how best to do this in a crisis and beyond. Finally, senior staff within our NHS trusts [matrons, human resources (HR) managers] responded to the crisis in a very short timescale with no existing evidence to support their decisions. As

evidence emerged of the increased risk to Black, Asian and minority ethnic (BAME) groups, they were required again to respond. These decision-makers require a framework for thinking about the different methods for reallocating nurses and the ethical implications of adopting these different approaches.

Aims and objectives

This study aimed to understand how (a) the process of redeploying nursing staff was managed prior to and during COVID-19; and (b) nurses made sense of redeployment during COVID-19 and its effects on mental health and well-being, job performance and retention intentions. The ultimate outcome of this knowledge was to produce much-needed guidance and training for managers and policy makers tasked with managing redeployment in a crisis and during normal service delivery.

To address these aims we had five objectives:

1. to understand and describe the redeployment of nursing staff within acute hospital services prior to and during the COVID-19 pandemic
2. to examine the choices made by senior staff in the redeployment of nurses, what factors (barriers and enablers) affected decision-making, redeployment processes and the adoption of different models for redeployment
3. to share learning to inform future planning of redeployment strategies for nurses during the COVID-19 pandemic
4. to explore the processes through which nursing staff, affected by redeployment, make sense of it
5. to explore the associated effects on their health and well-being, motivation, performance and turnover intentions.

Outline of methods

The objectives were met via two WPs:

- Work package 1 (WP1) (February–November 2021) involved individual interviews and focus groups with nurse managers responsible for redeploying nurses and members of HR involved in redeployment processes, to provide insight into the redeployment processes prior to and during COVID-19 (objectives 1, 2 and 3).
- Work package 2 (WP2) (February 2021–March 2022) was led by longitudinal interviews and was complemented by surveys to explore nurses' experiences of redeployment and their mental health and well-being, job performance and retention intentions over time (objectives 4 and 5).

Site setting

Three NHS acute hospital trusts in England participated in this study. These trusts were purposively sampled based on workforce ethnic diversity, geographical locations and COVID context (e.g. different experiences of peaks, plateaus and dips). We included two trusts in urban locations (in the North and South) and one in a rural location in the South (see *Figure 2*).

Participant recruitment and data collection

Work package 1

Purposive sampling was used to recruit nurse managers and HR managers (see *Figure 2*). Research Champions and HR leads circulated participant information sheets (PISs) (see *Report Supplementary Material 1*) via e-mail and WhatsApp to staff responsible for implementing, supporting and managing nurse redeployment. Researchers explained the study to staff who contacted them and obtained consent (see *Report Supplementary Material 2*). Recruitment was primarily conducted online (owing to COVID-19 restrictions) and supplemented with on-site 'walk the wards' (when appropriate) to introduce the study to potential participants. These were supported by three research champions, one based at each site. Participants were interviewed virtually (e.g. video or phone call) or in person based on participant preference and restrictions, using a semistructured approach (see *Report Supplementary Material 3*).

Interviewees were subsequently invited to attend local focus groups. One focus group was carried out per site, all of which were virtual via video call.

Work package 2

Purposive snowball sampling was used to recruit nurses (see *Figure 2*). WP1 participants (i.e. nurse managers) shared the study information via mailing lists, forums and social media platforms (mainly Twitter) with their nursing team. It was important to use a range of communication methods for reaching WP2 participants who were less likely to access e-mail regularly than more senior nurses.

Similar to WP1, recruitment was supplemented with on-site 'walk the wards'. The BAME leads for trusts also supported recruitment by sharing study information through their networks in an attempt to reach and engage nurses from a range of ethnic minority groups. The BAME lead and an ethnic minorities 'role model' (a nurse from an ethnic minority group) also occasionally joined the researcher when walking the wards to support recruitment of an ethnically diverse group of

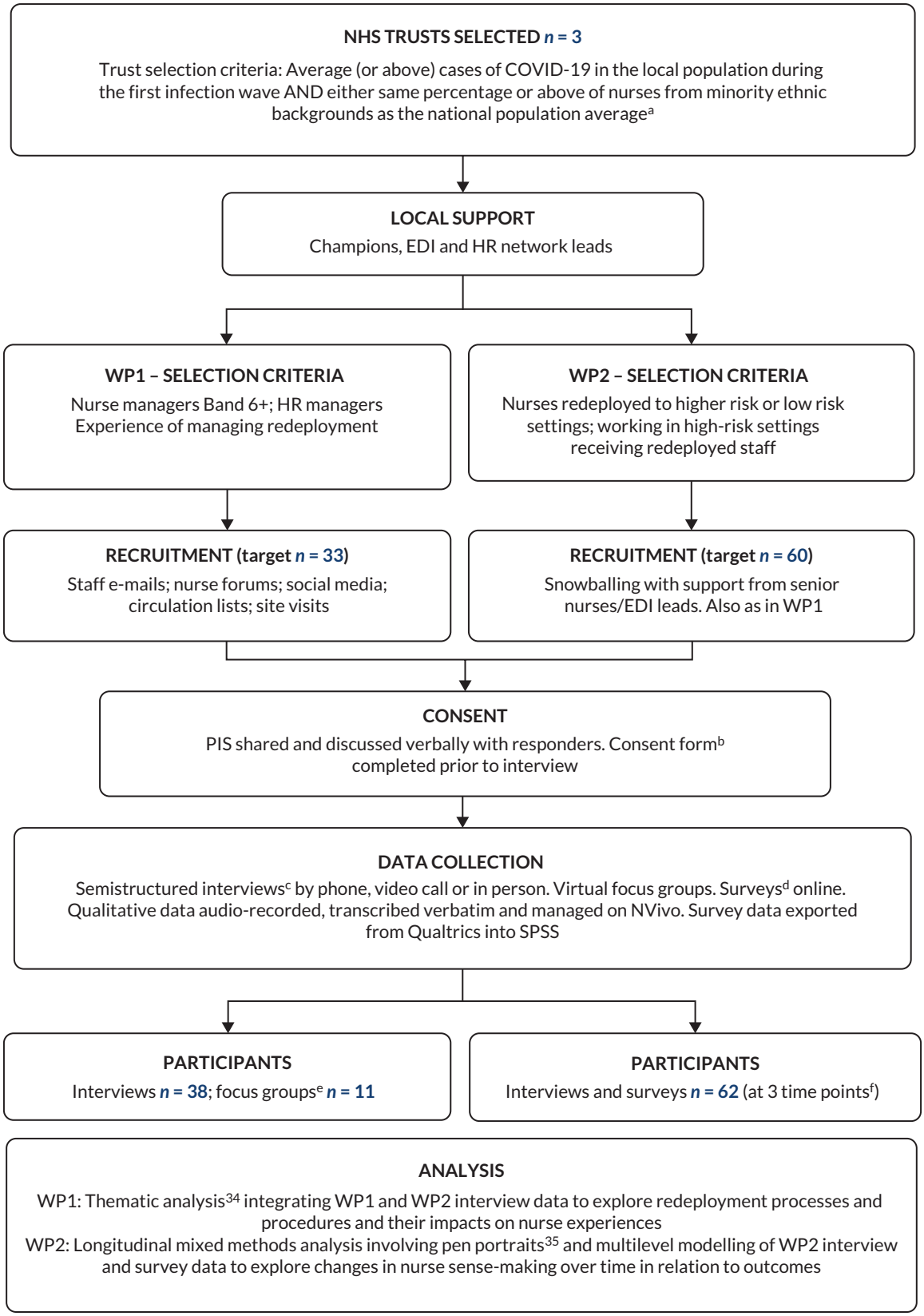

FIGURE 2 Research pathway diagram. a, At the time of preparing for the study in July 2020, there had already been between 181 and 486 COVID-19 related deaths at the sites. The proportion of clinical (non-medical staff) from ethnic minority backgrounds (from bands 5–7) in our three Trusts were 21%, 30% and 59% and 8%, 13% and 32% at grades 8 or 9 compared to an average across all acute hospital Trusts (n = 143) of 20.7% for band 5–7 and 11.1% for band 8–9 staff (WRES, 2020). b,c, See *Report Supplementary Material 1–3*; d, See *Appendix 1*, *Table 7* for list of measures and *Report Supplementary Material 4* for individual survey items alongside details of any modifications; e, virtual focus groups; f, gap between interviews was 3–6 months. EDI, equality, diversity and inclusion (also referred to at the time as BAME leads); HR, human resources; PIS, participant information sheet.

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nurses. Nurses participated in interviews and surveys [see *Appendix 1*, *Table 7* for full list and details of survey measures; and *Report Supplementary Material 4*, for the full list of survey items (including any modifications to the original measures)]. Survey measures of health and well-being, job performance and job retention outcomes of interest were identified. Measures were chosen that were widely used, where possible [e.g. the General Health Questionnaire (GHQ-12)], and those that had undergone reliability and validity testing either during or subsequent to their development. Any adaptations to these measures, deemed as minimal but necessary by our Staff Advisory Group (primarily to shorten measures to reduce burden and promote a higher response rate), were not subject to further psychometric testing as part of this programme. However, informal checking of face validity was conducted again by the Staff Advisory Group.

Patient and public involvement and engagement

We established two patient and public involvement and engagement (PPIE) groups: a 'community conversations' group comprising patients/carers who had experience of hospital care during the pandemic and a staff advisory group comprising nursing staff with experience of redeployment. The community conversations group was created to have conversations about patients' understanding of nurse redeployment and their experiences of care received during this time. Our programme theory (see *Figure 1*) indicated that redeployment could impact on patient communication and, therefore, safety. However, we were unaware of any research studies or conversations on social media about this topic. Thus, at the start of the study we did not know the extent to which the general public were aware of redeployment. We considered this an important avenue to explore.

Involving staff in an advisory capacity was considered intrinsic to the study, in addition to a patient and public contribution, as the study participants were NHS staff members. They had a unique insight into the clinical setting in relation to the working circumstances during the COVID-19 pandemic that included personal insights of being redeployed. Their role was to provide guidance and sense checking throughout the study and to support the interpretation of emergent data and the translation of findings into recommendations. We have drawn on the Guidance for Reporting Involvement of Patients and the Public (GRIPP) 2 short form[34] to report our experiences of working with both PPIE groups.

Community conversations group set-up and contributions

A search of relevant community groups was conducted across the regions represented by the three study sites. This included the voluntary community sector, charity, hospital and PPIE groups. We also utilised known networks and social media, for example, Facebook groups and Twitter. Introductory e-mails were sent to co-ordinators of these sites. The e-mail included a poster, a study summary and a short list of membership requirements including experience of hospital for 2 days or more, access to the internet and expectations and benefits for getting involved. Owing to low uptake, we then contacted the study site PPIE leads to request dissemination of our invitations to their members. This provided us with a total of 14 patient members from two study sites. The group comprised patients (n = 9) and carers (n = 3) (2 did not disclose their status) with a variety of hospital lengths of stay and frequencies during the pandemic. Although we did not formally request personal details on ethnicity from members, we did target specific community organisations that represent minority ethnic groups and indications were that the group was diverse in this regard. Unfortunately, no members were recruited from the third site as the Trust PPIE contact left during this time and was not replaced. Further efforts to recruit using community and volunteer networks were unsuccessful.

Four meetings were held with this group and the activities undertaken and contributions made are summarised in the *Report Supplementary Material 6*. Two lay leaders (our public research partners) contributed to the design of the group activities and documentation, including ways of working, recruitment materials, design for the first workshop and facilitation notes. Each workshop was co-facilitated by a lay leader, PPIE lead and a research fellow. In general, the meetings were not specifically aligned to particular stages of the study because we were primarily seeking their insights into care experiences rather than advising on research process.

Reflections on the community conversations group

We did not know the extent to which the general public were aware of redeployment and its potential safety implications, so identifying topics that would contribute to the project was initially challenging. We opted to explore awareness of redeployment and patient experiences of care initially to 'test the water' and build trust. Although the group did not influence the study methods or findings, their experiences helped to validate our WP2 findings, particularly those relating to the perceived impact of redeployment on patient care and experience.

Staff advisory group set-up and contributions

Recruitment to the staff advisory group was through trust global e-mail advertisement and personal contact. Staff responding to our advertisement were subsequently informed about the opportunities and responsibilities available to them through either exclusively becoming a member of the advisory group or a research participant. Those who opted to join the group were invited to attend a meeting during which they were provided with a study information pack outlining their roles and responsibilities. Despite invitations being extended to all three sites, the group only comprised members from one site.

The group comprised seven nurses (one male and six females). They were a theatre practitioner (band 5); staff nurse gastroenterology (band 5); staff nurse operating department practitioner (band 5); practice educator (band 7); practice development critical care (band 7); retired theatre nurse (band 5); and a clinical nurse specialist (band 7). All members of the group were white British. We worked with our equality, diversity and inclusion (EDI) advisor (Co-I) on this grant to enact a range of strategies to increase diversity, but these were unsuccessful.

Seven (online and face-to-face) meetings were held (see *Appendix 2*, *Table 8* for details of contributions). Meeting agendas were set in advance, targeting the needs of the study at that time, however, they were also flexible, responding to issues raised by members. Meetings were co-facilitated by a research nurse with extensive experience in a senior nursing role and as a researcher.

Reflections on the staff advisory group

Both researchers and the advisory group members considered the group to be hugely successful. The benefits to members included having a supportive and safe group during a time of enormous stress; learning about the research process and nurse managers' experiences during redeployment; contributing meaningfully to a valuable research project; and making changes to their practice. For example, members reported that they had changed how they spoke about redeployment to other staff. They told us that they shared the study information with colleagues who then felt part of a caring organisation. One mentioned setting up training for staff who received redeployed nurses. The group's contributions to the project were invaluable, as shown in *Appendix 2*, *Table 8*, enabling us to increase recruitment and retain participants through the creation of accessible research documents, providing reassurance that we were interpreting the research data in a meaningful way, and supporting us to complete data collection within tight timelines. Although we tried to recruit nurses from minority ethnic backgrounds to the group, we were not successful. We recognised early in the study that having more diversity in the group may have facilitated greater representation of nurses from minority ethnic backgrounds in the study and this is a limitation.

Equality, diversity and inclusion

At the outset, we put strategies in place to help ensure that the study sample was representative of the ethnic diversity at each site. Overall, we aimed to have at least 21% of our sample from minority ethnic backgrounds (see WRES statistics). We knew that the experiences of staff, at higher risk of contracting COVID-19 because of their ethnicity, needed to be heard. We were conscious that our core research team comprised predominantly white females and acknowledged that our lack of cultural insights and diversity needed to be addressed. To at least partly address this, we invited a Professor of Diversity as our PPIE lead to join the research team and to provide advice throughout the study. On commencement of the study, we invited the EDI and ethnic minorities network leads from each trust to join our Programme Management Group (PMG). Our Scientific Steering Committee (SSC) also included representation from the South Asian community. We sought their advice and support regularly. Initially we relied upon standardised information materials and strategies such as working with the ethnic minorities network leads to identify routes through which to access those particular staff. Latterly we conducted trust walk-arounds with ethnic minorities representatives and developed a poster and handouts (with assistance from our local ethnic minorities researchers and PPIE experts) specifically highlighting the desire to speak to these staff groups (see *Report Supplementary Material 7*). On seeking advice from the SSC and PMG we contacted local role models representing the target ethnic groups to support us in our walk-arounds. Although we did receive initial enquiries from our walk-arounds, few participated. Ultimately, although our sample of nurse managers was diverse, nurses from ethnic minoritiy groups represented 17% of the nurse sample despite our aim to recruit at least 21% of nurses from these groups.

On reflection we could have asked those that participated in the research why they took part and also what might have discouraged them from participation. Furthermore, we could have prioritised reaching and engaging nurses from ethnic minority backgrounds at the beginning of recruitment, rather than focusing on recruitment of ethnic minority nurses in response to slow uptake post blanket recruitment strategies. Although we sought support throughout the project, subsequent discussions with

colleagues have brought to light additional suggestions that could have been incorporated, for example there was some nuanced wording on the PIS around 'mental health' which could have deterred some nurses from the ethnic minority backgrounds from participating. These broader reflections have led us to conduct a health equity project in which we are examining the barriers and facilitators for staff from ethnic minority backgrounds to participating in research.

Analysis and principal findings

Analysis overview

To answer the aims of this project we analysed the WPs separately. WP1 interview and focus group data were analysed using thematic analysis.[35] This analysis was inductive, incorporating an ethical lens which answered all the WP1 objectives. The study findings are summarised in this report, and an in-depth ethical analysis will form a separate publication.

Work package 2 analysis was mixed methods (interview and survey data) and longitudinal. The qualitative data were analysed using a pen portrait approach,[36] and quantitative data analysed using descriptive and inferential statistics. This analysis built on the findings of WP1 and utilised sense-making theory[10] to answer the WP2 objectives. An overview of these findings is summarised in this report and provided in more detail in a separate publication.

Work package1 analysis

Objectives

1. To understand and describe the redeployment processes used by hospitals in their redeployment of nursing staff prior to and during the COVID-19 pandemic.
2. To examine the choices made by senior staff in the redeployment of nurses, what factors (barriers and enablers) affected decision-making, redeployment processes and the adoption of different models for redeployment.
3. To share learning to inform future planning of redeployment strategies for nurses during the COVID-19 pandemic.

Analysis of WP1 data was undertaken independently by two researchers (HH and AD). In line with thematic analysis,[35] transcripts were first read to acquire an overview and understanding of the data and then coded to identify descriptive themes. These themes were further explored in the site focus groups which provided a sense check by nurse managers. Preliminary analysis of the focus groups indicated that the themes reflected the managers' experiences. Meetings were next held within the research team to discuss and refine the themes identified. The findings from this analysis are reported below.

Work package 1 findings

Participants

Thirty-eight nurse managers or HR advisors participated in WP1. Most participants were female (n = 34; 89%) and white (n = 29;76%), and the remaining 9 were Asian (n = 3), black (n = 3), mixed (n = 1) or missing data (n = 2) (see *Table 1*). The mean age was 46 years with an average of 20 years' post-registration experience. The sample covered a range of departments and specialities including critical care surgery, outpatients and paediatrics.

Themes

Analysis of nurse manager interviews and focus groups revealed seven themes (see *Table 2* below) that illustrate the redeployment process, the underpinning decisions

TABLE 1 WP1 participant demographics

Characteristic		Number
Gender	*Female*	34
	Male	3
	Prefer to self-identify	0
	Missing	1
Ethnicity	*White*	29
	Asian	3
	Black	3
	Mixed	1
	Other	0
	Missing	2
Trust	*A*	12
	B	14
	C	12
NHS pay band	*5*	0
	6	1
	7	7
	8	21
	9	1
	HR	4
	Missing	3

TABLE 2 WP1 themes and subthemes

Themes	Subthemes
1. The pre-existing foundations	a. Pre-pandemic redeployment processes b. Attitudes and cultures towards and experiences of pre-pandemic redeployment
2. 'Unprecedented territory'	a. Information available about the virus and central directives b. Concerns relating to COVID outside of work c. Expectations of COVID d. Anticipatory actions for redeployment
3. 'Pawns on a chessboard'	a. Changes to working structure b. Models, strategies and rationale used to identify nurses to redeploy c. Preparing nurses for redeployment
4. A challenging negotiation	a. Communicating with nurses about redeployment b. Managing conflict and push-back c. Communicating with colleagues about redeployment d. Pushing back to top-level requests for redeployment e. Changes to communication due to feedback loop
5. 'I had to look after them'	a. Managers supporting the nurses they redeployed b. Supporting nurses in redeployed role c. Supporting teams who receive redeployed nurse
6. The challenges of returning redeployed nurses and rebuilding teams	a. Process (lack of) for de-deployment b. Impact on team dynamics c. Changes to de-deployment due to feedback loop
7. 'We have all been impacted in different ways and we need to acknowledge that'	a. Perceived experiences of nurses b. Experience of nurse managers c. Team dynamics d. COVID hangover e. Attitudes towards future redeployment

made and their contributing factors, and the impact of those decisions on nurse managers and nurses. Key characteristics of role, age and band are provided alongside participant quotes. Additional illustrative quotes are provided in *Appendix 3*, *Table 9*.

Theme 1: The pre-existing foundations Redeployment happened at each of the trusts prior to the pandemic. This was mainly ad hoc to fill staffing gaps in response to winter pressures or in conjunction with HR in response to the changing needs of the nurses, for example where a clinical role could no longer be performed. In response to the pandemic, one of the trusts was readily able to scale-up existing formal procedures in the form of a 'pool' of nurses who volunteered to be redeployed when necessary. Nurse managers often drew on previous experience of managing redeployment prior to the pandemic, but also discussed how it was different in places; for example, how fast-paced it was during the pandemic, the nature of mass redeployment in contrast with individual redeployment, and moving nurses outside of their speciality.

Prior to the pandemic, nurses' attitudes towards redeployment were, on the whole, perceived to be negative across the study sites. There were, however, some instances of positive attitudes to redeployment. These were primarily grounded in positive redeployment experiences, mainly in the trust that had scalable redeployment processes and procedures in place. Despite one trust having scalable procedures, nurse managers across all sites reported having minimal guidance on 'how to' redeploy nurses. Nurse managers' decisions about who to redeploy were often influenced by the likelihood of push-back from nurses. So, nurses who were perceived to be more compliant were more likely to be approached.

> *Yeah people generally are not happy to move, to be honest. Because, even pre-COVID, […] Some people don't like it because they like the area that they work in. It's a difficult conversation because you don't want to be, threatening them with anything, but it's more about, you are a staff nurse for the Trust. You might work in a certain area, but actually if you're there, you can then support a different area.*
>
> *HR manager, age 44, band 7*

Theme 2: 'Unprecedented territory' At the beginning of the pandemic there were, ever-changing, directives from the United Kingdom (UK) government and the wider NHS received at senior level in the trusts. Although these were cascaded down through the organisation, as the command-and-control structure of the trusts came into effect, nurses expressed uncertainty and fear about the impending COVID-19 crisis. This was compounded by the limited information available to trusts and managers about the virus, how to treat it, risk factors and how trusts should respond. Some senior nurse leaders and nurse managers were putting anticipatory plans into place in preparedness of needing to redeploy nurses in response to the COVID-19 pandemic, despite the uncertainty. To facilitate this, some nurse managers actively sought and shared information from other countries, with other departments, up the chain of command and with other trusts.

> *I think our critical care team had been having lots of meetings leading up to the first wave because they had been in discussion with Italy etc. so they were a little bit more prepared than the rest of the organisation I think and they had already started to reach out to previous*

> *colleagues and see what skills we had in the rest of the organisation for critical care because I think we realised it was going to affect ITU more than anywhere else.*
>
> *Lead nurse for staffing, age 47, band 8*

Senior nurses reflected on their expectations at the start of the pandemic when they often under-estimated the duration of the pandemic and the impact on nurses. These expectations shaped initial decisions towards the redeployment of nurses.

> *I think I think we were very naive when we went into this pandemic. […] I don't think any of us envisaged that we would be doing this for 12 months. Certainly, when we stopped doing general surgery. Because I think the biggest impact has been on those surgical nurses. Those staff were predominantly from two wards, we lifted and shifted them, […]. And what's quite shocking now is that actually when we're looking into individuals, because you need somebody to move, you open it [the Roster] up and they've had 12 moves.*
>
> *Deputy ADN, age 53, band 8*

As the pandemic evolved and the COVID-19 context changed in terms of patient numbers and acuity, government priorities and NHS directives also shifted. For example, as the first wave was waning there was a push to restart elective surgeries. These changes often required a timely response, limiting effective planning, leading to more reactive decisions made by top-level decision-makers and, therefore, nurse managers. This led some managers to perceive a lack of planning from their organisational leaders, often invoking anger and disappointment in their trust.

> *I felt there wasn't a plan and I kept on saying, 'what is the plan?' Because I had plans here about what we were going to do and you would expect me to have those plans in place, but what's the plan for our division? And I never got anything back and so I was quite angry.*
>
> *Matron, age 55, band 7*

Theme 3. 'Pawns on a chessboard' While redeployment decisions were primarily made at the top level, it was middle management, mainly matrons, who were 'called to arms' and tasked with meeting staffing levels. Instructions to matrons around redeployment primarily consisted of staffing directives and/or a request to redeploy a particular number of nurses from their team to a specific ward. The matrons were then responsible for independently identifying the appropriate nurses to redeploy, remain or shield. Nurse managers took into account many different factors when choosing which nurses to redeploy including skill set; experience; banding; fit testing; risk factors; the needs of their home team; perceived resilience and ability to cope with redeployment; available volunteers; and the likelihood of push-back. Similar to before the pandemic, there was no guidance on what to take into account and how to weight these factors, which led to inconsistent approaches by nurse managers, both within and across organisations.

> *At first everyone was being redeployed on a daily basis, so I was trying to say, 'right, you went yesterday so you stay on the department today', you know you stay, and I was trying to make it as fair as possible […] but I was also having to think about the skill mix as well, so I had to make sure that the people that stayed in the department were those that were able to do everything that was expected of them […] but then I also had [..]to think of their health and their background as well and work, […] so it was a multitude of things that we had to think about.*
>
> *Practice development sister, age 38, band 7*

Redeploying nurses who volunteered to be redeployed was considered the most ethical model by nurse managers, however, as the pandemic progressed there were perceived to be less nurses volunteering. This made ongoing redeployment more challenging for nurse managers. Often, nurses who were considered the 'path of least resistance', that is, were perceived as less likely to push back to redeployment requests, were identified as the nurses to redeploy. On the whole, nurse managers were aware that their nursing teams often felt redeployment was 'unfair' and some nurse managers tried to overcome this by 'picking names out of a hat', rotating who was redeployed and using more positively framed communication.

> *I think asking for volunteers is always a good thing, because then you're going to get people who actually don't mind moving or have actually relished the experience. So we had a nursing associate who was redeployed into critical care who absolutely loved it. She learnt loads of skills and she came back feeling that she'd actually made a difference and she volunteered. So of course the best thing to do would be to ask for volunteers, obviously, sometimes you're not going to get enough, and so there is that, but in terms of good practice […] it's kind of making people feel valued and not just dumped, which is what some people felt like they were.*
>
> *Nurse manager, age 40, band 7*

Nurse managers often felt that their senior leaders were disconnected from nurse managers' decisions and the impact of those decisions on nurses, as they were constantly trying to meet the numbers focussed staffing

directives cascaded down to them with limited support and guidance, while also being acutely aware they were redeploying people, who were often being negatively impacted by redeployment. Nurse managers were required to take a person-focused approach when redeploying nurses, and they witnessed the distress of their nurses owing to redeployment and working in a redeployed role. This led nurse managers to feel torn, 'in the middle' and emotionally burdened as they were required to meet the staffing directives, whil also wanting to maintain the well-being of their nurses.

> *I hated it, I felt like I was dealing with pawns on a chessboard, we'll move this one here, and this one here, this one here, and you know, I would regularly stop and say to the sisters 'oh my God, these are people, these are their jobs and we're just literally moving them around them and plugging gaps with them.' And yeah I found it really hard actually because I thought, I know they hate moving I know they don't want to have to do it and we kind of making them do it quite regularly.*
>
> *Matron, age 41, band 8*

Theme 4: A challenging negotiation This theme captures the communication between nurse managers and nurses when enacting the redeployment process. Nurse managers often experienced conflict and incivility when asking nurses to redeploy, particularly as the pandemic progressed, which contributed to their own moral and emotional distress. To minimise resistance from nurses, nurse managers often thought carefully when communicating redeployment requests, with an element of negotiation.

> *So sometimes you would have to have those challenging conversations with a member of staff to say, you know, I appreciate you moved yesterday, but you know looking at the exact thing we have today, we cannot move the only senior experienced person on shift and we cannot move the person who started two days ago. You are the only person who would safely move and support the other departments. Just having those challenging conversations in some situation.*
>
> *Matron, age not reported, band 8*

In addition to communicating directly with the nurses they were redeploying, nurse managers were also required to communicate with their colleagues, such as matrons in other departments to negotiate how many nurses they needed/were willing to send, or the working conditions for the nurses they were redeploying. Nurse managers also sometimes communicated up the chain of command and felt responsibility to represent the 'voices of the nurses' to help inform the top-level decision-making. Nurse managers, themselves, also sometimes pushed back against top-level staffing and redeployment directives, which involved negotiation tactics. Communicating up the chain of command sometimes contributed to the decision-making at the top level, however, it was believed that senior leaders were predominantly unreceptive to receiving feedback or making changes in response to feedback.

> *And there were times when I did get frustrated and said, 'there's no, no more I can give you, I can't give you any more', 'they're "down to bare bones"' was a typical sentence, even now, 'well, can you find me another nurse, can you, can you redeploy…', I said 'I can't, I've looked, I've gone with a fine-tooth comb and I can't find anything or anyone to give you, we're gonna have to look at plan B', […] So, it was frustrating for me and people like me who the ADNs were asking, you need to move staff in to give more, give, give, and we just couldn't. It's hard. Still is hard I can't give you something I haven't got.'*
>
> *Matron, age 50, band 8*

Theme 5: 'I had to look after them' Nurse managers of redeployed nurses and the teams that received redeployed nurses felt responsibility to support nurses in various ways. Nurse managers who redeployed nurses felt a sense of responsibility to provide support to the nurses they had redeployed, even though they were often no longer their line manager clinically. Nurse managers reported doing this through 'checking in' with the nurses.

> *I have never felt more responsible for them. So, […] I went to see them every single day that they were there and just to check in on them. […] It felt a bit like sending troops to war like they were just one of numbers really that were being sent in and that I felt I had to look after them.*
>
> *Matron, age not reported, band 8*

Teams who received redeployed nurses were required to support the redeployed nurses clinically, so they could fulfil their role working as a redeployed nurse. For some teams this involved inducting redeployed nurses and team integration. A lack of guidance at trust level meant that these inductions happened inconsistently with and between trusts. One of the sites introduced an induction card in an attempt to standardise an induction and welcome for redeployed nurses; this was reported by nurse managers and nurses as positively impacting the experience of working in a redeployed role. Nurse managers discussed the challenges of supporting redeployed nurses in their redeployed role and the extra burden they perceived this to have on their team. This meant that nurse managers of teams that received redeployed nurses also had to support

their own team, so their team felt capable of supporting the redeployed nurses.

> *We always showed people around, show them where things were, but I think our main thing was, 'you're not in charge of this patient'. You know, 'we will do everything, you're there to make sure that they're safe and shout if something alarms you'. […] But there wasn't an orientation booklet or anything that we did for them.*
>
> *Senior sister, age 54, band 7*

Theme 6: The challenges of returning redeployed nurses and rebuilding teams There was a very little directive on when nurses' redeployed roles should come to an end and how they should be returned to their 'home team'. This was discussed by nurse managers and nurses as 'de-deployment'. Nurse managers discussed the challenges they faced when attempting to 'get their nurses back', or de-deploy. This was driven by the number of COVID patients, the 'busyness' of services, and the skill sets of the nurses. De-deployment of nurses primarily relied upon transparency from the teams around how much they needed redeployed nurses. Some matrons believed that 'their nurses' were delayed in being de-deployed owing to filling nursing shortages in the areas to which they had been redeployed. A lack of guidance for nurse managers on nurse de-deployment meant that the approaches taken were inconsistent and communication around the process was often considered poor by nurses.

> *So there's a daily e-mail that goes around saying how many COVID patients we've got at the Trust and you could see this number just dropping every day. And yet we were being told they can't have them back, 'cause we're still really busy. There's a little bit of am I actually just staffing your vacancies, are my team just staying there filling gaps in rosters.*
>
> *Matron, age 40, band 8*

Once nurses were de-deployed to their home team, they usually faced a backlog of work and were required to 'return to work as normal' to work through the high volume of work they had. There was very little opportunity for the nurses to share their experiences of redeployment or working in their home team through the pandemic. The lack of opportunity to rebuild teams as they came back together negatively impacted on team dynamics, with resentment building between colleagues that were previously very cohesive. Nurse managers reflected on this and how they wished that they had allowed time to share experiences in order to rebuild team dynamics after redeployment.

> *'The team is different now. I thought people would come back and feel; "God I'm so glad to be back and I'm so grateful to work in outpatients", but that's not the case. […] They're not getting on like they used to. Before, I'd say their teamwork was amazing. […] but there's been a lot of petty infighting, moaning and people just not getting on. And there's clearly resentment around those that went and those that didn't go.'*
>
> *Matron, age 46, band 8*

Theme 7. 'We have all been impacted in different ways and we need to acknowledge that' Redeployment has had positive and negative impacts on nurse managers, the nurses it directly affected, and team dynamics. The positives included the building of relationships between departments, new skills learned, new job opportunities, pride and confidence. However, on the whole, redeployment experiences were predominantly negative and were perceived to have had a profound short- and long-term effect on nurses and nurse managers. Nurse managers often found redeploying nurses distressing and did not want to redeploy nurses, as they had an awareness of the negative impacts this was likely to have on the nurses, leading to moral injury for the nurse managers. This subsequently impacted on the nurse managers' well-being, the decisions they made about redeploying nurses, and how to do that in subsequent redeployment.

> *You'd have people kind of venting to you, saying […] 'it's just awful' and 'I don't want to go back there' and you then have to take on board they'd had a rubbish day but know in the back of your mind you're still gonna have to redeploy them again […] it does make you feel awful knowing that in the back of my mind next Tuesday I'm going to send you again, 'cause I can't not send anybody and of course then it has a detrimental effect on the staff as well because if they come back, having had a really bad shift on one ward, they'll come back and tell their friends and their colleagues, that was awful, and of course they're not going to want to go either, and so we spent a lot of time trying, you know, firefighting in that respect.*
>
> *Nurse manager, age 40, band 7*

On the whole, attitudes towards future redeployment are currently more negative than prior to the pandemic, primarily owing to negative prior experiences of redeployment. Nurses and nurse managers are continuing to deal with the 'psychological hangover' of working through the COVID-19 pandemic and the decisions made in the response to the pandemic. Many nurse managers reported feeling deeply affected by redeployment and working through the pandemic, and that they are continuing to be affected by it.

> *We're all sick of this pandemic, but for us in the health service, we really do live and breathe it 24/7 […] but I think, like in January, February it's like 'Oh my God all these hospital staff crying on duty' but that gets forgotten very quickly, but we are still living and breathing through this pandemic and it hasn't ceased for us. This is not over for us. So it's, it is what it is, as they say, but it's difficult.*
>
> *Matron, age 46, band 8*

Work package 2 analysis

Objectives:

1. To explore the process through which nursing staff, affected by redeployment, make sense of it.
2. To explore the associated effects on their health and well-being, motivation, performance and turnover intentions.

Work package 2 data were collected over three time points spread across the pandemic (March 2021–February 2022), with nurses participating in an interview and survey at time point one (T1) and time point three (T3) and a survey only at time point two (T2) (see *Table 3*).

Quantitative data

Quantitative analyses were used to (1) identify any differences in outcome variables (health and well-being, motivation, performance and turnover intentions) associated with demographic factors and (2) test the outcomes. Within the programme theory model (see *Figure 1*) the outcomes examined were: health and well-being; cognitive resources; safety and performance; and retention and turnover. To begin, the data were prepared for analysis by applying identification codes, merging time point datasets into wide and long formats, re-scoring scale items, assessing missing data, checking internal reliability and calculating scale scores appropriately. We created a dummy code for ethnic minority participants (all participants reporting non-white backgrounds) and non-ethnic minority participants (all participants reporting white backgrounds). Means, standard deviations and correlations were computed within SPSS.

First, we computed correlations and *t*-tests at each time point (we used pairwise or list-wise deletion for missing data, depending on the analyses) to explore any relationships between the demographic variables (gender, ethnicity, UK-trained, band and trust) and the outcomes. To explore the associated effects of health, well-being and motivation on job performance and turnover intentions, we imported the data into M*plus* to conduct multilevel analyses. The inclusion of within-person (that is, one person across time) alongside between-person analysis enabled us to consider the model's relationships across time points. At the within-person level, we regressed the observed scale scores of performance and turnover intentions on to time point, resilience, burnout, sleep, GHQ, core self-esteem and needs for relatedness, competence and autonomy. This was replicated at the between-person level but including age instead of time point. The multilevel analyses used 155 data points from 59 nurses and used M*plus*' robust technique for handling missing data. Very little variance was found at the trust level (ICCs: GHQ = 0.01; Resilience = 0.02; Burnout = 0.02; Sleep = 0.06) indicating few differences across trusts, therefore, M*plus* analyses were conducted only at two levels: level 1 time and level 2 person.

It must be noted that although these data are quantitative, they remain subjective reports of the participants' perceptions of their well-being, performance and turnover intentions. We did not attempt to power this study to allow comparisons between trusts. Moreover, the timing of data collection varied for each trust, potentially representing error variance owing to the stage of the pandemic when data were collected. Thus, these results are not intended to be considered in isolation. Instead, all results emerging from the statistical analysis need to be examined alongside the qualitative data.

Qualitative data

The analysis of WP2 data was conducted by the person who also recruited and interviewed the nurses. Data familiarisation continued through reading transcripts. A second researcher reviewed transcripts independently for

TABLE 3 Data collection time periods for each time point between March 2021 and February 2022

Trust	Time point 1	Time point 2	Time point 3
A	March–November 2021	July 2021–January 2022	December 2021–February 2022
B	April–November 2021	August 2021–January 2022	December 2021–February 2022
C	June–December 2021	September 2021–January 2022	December 2021–February 2022

three of the participants from different trusts across time points 1 and 3 and created initial pen portraits[36] to explore participants' sense-making over time. Pen portraits are a method by which large amounts of longitudinal health research data can be concentrated into a focused account.[36] The authors met to discuss similarities and differences in their pen portraits, and this informed the basic structure for the pen portrait analysis (see *Report Supplementary Material 5* for pen portrait example). Following this, two authors created pen portraits for each participant outlining the key factors that nurses described within their interviews as contributing to their experience and sense-making of redeployment. An iterative process of interpretation was facilitated through five team meetings ensuring focus on the key factors. Following these meetings, summaries of the participants' journeys, which outlined what happened to the participants' identities as a nurse and their identification with the organisation (i.e. the extent to which a person feels a sense of belonging and value alignment with their organisation[37]), were added to the pen portraits. Once the majority of the pen portraits had been produced, further meetings were used to establish any observable differences and the possible categorisation of nurse journeys. These meetings outlined the possible journeys (i.e. changes in identity and identification between time points) which nurse and organisation identities may have had between time points. Once all participants had pen portraits, the categories which the nurse journeys sat within were refined.

Work package2 findings

Participants

We exceeded our original recruitment target of 45 nurses, recruiting 62 nurses to WP2. The majority were white females (see *Table 4*) with a mean age of 41 years and an average of 17 years' post-registration experience. The sample included those who were redeployed to higher-risk settings and to lower-risk settings (including those who shielded) and those who worked with redeployed nurses within their team. While most nurses experienced one type of redeployment, some had multiple and varied experiences of redeployment which made it difficult to categorise the nurses to a particular type of redeployment.

Of the 62 nurses interviewed at T1, 53 were also interviewed at T3. Questionnaires were completed by 38 participants at all three time points. Of the remaining participants, 15 completed questionnaires at two time points, 8 completed one questionnaire at one time point and 2 did not complete any time points.

TABLE 4 WP2 participant demographics

Characteristic		Number
Gender	*Male*	6
	Female	52
	Prefer to self-identify	1
	Missing	3
Ethnicity	*White*	49
	Asian	5
	Black	1
	Mixed	2
	Other	2
	Missing	3
Trust	*A*	25
	B	21
	C	16
NHS pay band	*5*	17
	6	22
	7	19
	8	1
	Missing	3
Nurse training	*In the UK*	49
	Outside the UK	10
	Missing	3

Overview of quantitative findings for all participants: exploring the associated effects on health and well-being, motivation, performance and turnover intentions

The descriptive statistics for all outcome measures are outlined in *Table 5* (see *Appendix 4*, *Table 10* for means, standard deviations and correlations for all outcome measures).

The WP2 survey data showed that all nurses in the sample reported high to severe psychological distress (GHQ-scale), with just under half (n = 25/59) reporting high levels of burnout at time point 1 (see *Appendix 5*, *Table 11*). At time point 1 and 2, all participants reported high to severe levels of anxiety and depression within the GHQ subscale, reducing only slightly at time point 3. In terms of personal resilience, at all times points, fewer than 10% of participants reported high resilience. Around half of the nurses (n = 30/59) agreed that they often thought

TABLE 5 Means and standard deviations for all outcome measures

Variable	Time point one		Time point two		Time point three	
	Mean	SD	Mean	SD	Mean	SD
Well-being measures						
GHQ *(Higher score = better well-being)*	2.31	0.37	2.41	0.56	2.57	0.50
Burnout *(Higher score = more burnout)*	3.16	0.57	3.17	0.68	3.04	0.81
Sleep *(Higher score = better sleep)*	4.98	1.85	5.33	2.11	5.45	2.11
Cognitive resources						
Resilience *(Higher score = more resilience)*	3.28	0.70	3.18	0.71	3.36	0.78
Core self-evaluation *(Higher score = higher core self-evaluation)*	2.84	0.61	2.78	0.70	2.60	0.74
Need for relatedness *(Higher score = higher level of relatedness)*	3.49	0.70	3.43	0.76	3.65	0.82
Need for competence *(Higher score = higher level of competence)*	3.19	0.76	3.17	0.75	3.52	0.70
Need for autonomy *(Higher score = higher level of autonomy)*	3.03	0.63	3.00	0.82	3.00	0.82
Job performance *(Higher score = better performance)*	31.23	9.05	29.97	10.47	31.40	10.36
Turnover intentions *(Higher score = higher leave intentions)*	3.20	1.47	3.13	1.36	3.38	1.48

about leaving their career at time point 1, which was 12–18 months after the start of the pandemic.

Relationships between outcomes and demographic variables

The correlations, *t*-tests and ANOVAs conducted for each time point separately found that there were only a few significant relationships between the outcome variables, including health and well-being (GHQ, resilience, burnout, sleep), cognitive resources [satisfaction of needs, core self-evaluation (CSE)] and performance (employee resilience, performance, turnover intentions), and demographic variables (see *Appendix 6*, *Table 12*). Nonetheless, age and band were variables worthy of comment. Younger nurses reported higher levels of burnout and this was significant at time points 1 and 2 (T_1 $r = -0.257$, $p = 0.053$; T_2 $r = -0.350$, $p = 0.013$). Those who were more junior on the nursing scale also reported higher burnout at time points 2 and 3 (T_2 $r = -0.281$, $p = 0.043$; T_3 $r = -0.340$, $p = 0.024$). With respect to intention to leave their job or the NHS, the more senior a nurse the less likely they were to report this, with a significant difference at time point 3 only (T1 $r = -0.206$, $p = 0.118$; T2 $r = -0.154$, $p = 0.277$; T3 $r = -0.305$, $p = 0.044$).

Relationships between health, well-being and cognitive resources on turnover intentions and performance

We conducted a two-level path analysis within M*plus* including all health, well-being and cognitive resources constructs as observed variables. Given that age and band were the only demographic variables to have a systematic relationship with performance and turnover intentions, they were included in the initial analysis. Nonetheless, the model could not be estimated when band was included owing to non-identification; therefore, as it was correlated with age, it was deemed redundant and removed from further analysis. Time point was defined at the within-person level (group-mean centred) and age was defined at the between-person variable; all other variables were allowed to decompose into within- and between-level variance in the model. Most of the variance in performance was at the between-person level (ICC = 0.671) while turnover intentions also had a substantive amount of between-person variance (ICC = 0.327), verifying the need to conduct multilevel analyses.

At the between-person level, the model accounted for a significant amount of variance in performance (R2 = 0.57, $p = 0.031$) and turnover intentions (R2 = 0.60, $p = 0\ .003$) but no individual factor was uniquely and significantly related to either performance or turnover intention. At the within-person level, the model again accounted for significant variance in both performance (R2 = 0.43, $p < 0\ .001$) and turnover intentions (R2 = 0.15, $p = 0\ .018$). However, unlike at the between-person level, there were several significant variables uniquely associated with either performance or turnover intentions. All beta-weights are included in *Appendix 7*, *Table 13*.

Based on the tests of our programme theory model we, therefore, identified three significant findings (see *Appendix 8*, *Table 14*). In contrast to theory and existing

literature, when nurses reported that their autonomy needs were met (i.e. the nurses had control over their work environment), their reported job performance was lower than when their autonomy needs were not met. All data and reporting were double-checked for errors, but none were found. Although this was not explicit in what nurses said (in the interview data), there was a sense among the research team that poor performance could be accepted as an inevitable consequence of being redeployed among nurses who did not volunteer. However, the small sample size precluded deeper quantitative investigation and, given the limitations of these data on their own, this finding could not be explained from the qualitative data, so we do not report this as a conclusion. First, when a nurse reported lower psychological distress (GHQ-12 scale) and better sleep, then they also reported better job performance. Second, when a nurse reported lower CSEs then they reported better job performance. Although this is an unexpected finding, the qualitative analyses suggest that this lower CSE might be indicative of the undermining of nurse identity over time (as described in journey 3 in *Work package 2 nurse journeys*: *Journey Three: Demolition of dual identities*) with better performance being driven by organisational pressures evidenced within the pandemic. Finally, when a nurse reported lower personal resilience, then they also reported higher turnover intentions.

Overview of WP2 qualitative findings: exploring the process through which nursing staff, affected by redeployment, make sense of it

For all nurses, the redeployment process was a transformative experience, personally and professionally, and had huge ramifications for nurses' mental health, job performance and retention intentions. Working through the protracted state of flux and navigating dramatically changed circumstances at work compromised their well-being, performance and intentions to leave. The way in which nurses organised and made sense of their experience was significantly influenced by how they perceived themselves, both as professionals and as members of their particular organisation. These dual identities (i.e. nurse identity and organisational identification) operated as lenses through which they interpreted the pandemic experience. However, they did not remain static; they were often thrown into crisis and fundamentally altered during the sense-making process. In this regard, identity was both a factor in, and an outcome of, sense-making. Identity is central to sense-making theory and has been outlined as the first of seven properties of sense-making.[10]

Pen portrait analyses revealed three different sense-making 'journeys' within which all nurses could be categorised. These reflected nurses' varying interpretations of their redeployment experiences. All journeys share two underpinning themes: professional nurse identity and identification with one's organisation. However, the three journeys differ with regard to the sense-making process and outcomes in terms of well-being, retention and job performance. Each journey demonstrates a different pattern of protective and harmful factors, which, cumulatively, helped preserve or undermine professional nurse identity and/or organisational identification during the sense-making process. Numerous protective or harmful cross-cutting factors were evident across all journeys, which contributed to nurse sense-making, including communication, resilience, autonomy and support (see *Appendix 9*, *Table 15*). These factors had differing temporal significance, with specific factors contributing more significantly to nurse sense-making at different time points: pre-pandemic, during peaks and in the post-pandemic context.

These three journeys are now described in detail, outlining the consequences of redeployment for nurse well-being, performance and retention.

Work package 2 nurse journeys

Journey One: Professional identity and organisational identification intact/maintained (nurses in group = 28)

The way these nurses made sense of redeployment did not undermine their professional identity or organisational identification. At the end of the study these nurses' identities as professionals and as members of the organisation were maintained and stable. Key protective factors were evident within this group of nurses. The nurse's band was important in their experiences, as most of the nurses were band 6 or higher; these nurses held more power within their organisation and, therefore, often had a greater understanding of the context in which redeployment was happening. These nurses may have been more involved in the decision-making for redeployment or had a greater understanding of the need and benefits of redeployment for the whole hospital in terms of staffing needs and patient safety. One exception was a newly qualified nurse, who described their status as being beneficial for their experience as they were in the mindset of learning and moving specialities and, therefore, perceived the possible benefits of being redeployed for gaining further experience. Furthermore, the nurses' personality or personal resilience was important in these experiences. All nurses within this group believed that their personality was crucial in making sense of their redeployment experience. These nurses believed that their stoical attitude was central to 'being a nurse' and enabled them to view their experience as an opportunity and to learn from the positives. This was further demonstrated in time point 3 as the nurses discussed actively seeking and only reflecting on the positives of their experiences. Most of the nurses sharing

this journey exerted control over their redeployment through purposively seeking their own redeployment arrangements or volunteering when the redeployment request was made. Having this autonomy and control within redeployment (i.e. volunteering) enabled these nurses to be redeployed within a role that matched their existing skills, enabling them to work within their competencies. This journey also included most of the nurses who worked in a leadership role or receiving redeployed nurses.

> *Again, appreciate like I have the choice to go and I made those choices and I also have the choice to come back earlier and I chose to stay, but I know like a lot of people didn't have choices. […] at least if people felt that they'd volunteered for it and felt that they'd had a say or had a choice in the matter they probably would have felt better. I think if I'd have been moved with no choice it would have been even harder personally.*
>
> *Age 29, band 6*

Nurses sharing this journey type did outline feeling anxious prior to redeployment because of the unprecedented nature of the care they would be delivering. Most of the nurses described feeling supported by their peers, line manager and wider leadership team within their organisation. Following the peaks of the pandemic, these nurses described how their organisations' leaders had learned lessons and were flexible in their responses to the pressures post-pandemic. For these nurses, the most difficult aspect of working during the pandemic was the patient acuity and the distressing way that patients were dying. These experiences caused considerable trauma for the nurses within this group, and they considered this to be one of the key reasons behind experiences of poor mental health, including stress, burnout and anxiety. Despite these experiences, in their sense-making process, the nurses on this journey attributed the harms to their mental health as external to the organisation; to the wider COVID context, NHS or government pressures. This attribution of any harm to external factors, rather than internal organisational decision-making, protected the nurses' identification with their organisation.

Journey Two: Organisational identification undermined (professional identity maintained) (nurses in group = 24) In making sense of their redeployment experiences, this group of nurses maintained their sense of nurse identity. However, their identification with their employing organisation was challenged and undermined. For nurses in this group, their existing nurse identity was important in making sense of their redeployment experiences because they viewed redeployment as a part of being a nurse. However, in comparison to journey one there were more harmful factors apparent in this group. These nurses experienced disempowerment and had little control over their redeployment with some describing losing their voice within the organisation at this time. Nearly half of the nurses within this group were band 5 (N = 11), which might explain their lack of autonomy over redeployment. These nurses were more likely to be redeployed, especially to a 'high risk' area, and described how their redeployed role did not match with their existing skills. This contributed to them feeling like an object, undervalued by their organisation.

> *I felt like a commodity, just being picked up and plonked. And erm… I didn't feel that I was being treated as an individual and I didn't feel respected. And I knew, you know, I knew we were in an emergency situation and staff had to be placed where they were needed and what have you, but the Trust have very strong principles around valuing staff and respecting staff, and I felt that that they just went out of the window.*
>
> *Age 52, band 7*

A sense of injustice was an overarching harmful factor. When describing their redeployment experiences, fairness was a key concern for the majority of nurses with the perception that the selection process of redeployment was unfair or there was a lack of transparency in the decision process. They perceived there to be poor management and communication, a lack of preparation for redeployment, inadequate support and a lack of presence from senior leaders in the trusts. Furthermore, the view that the organisations did not develop a plan for redeployment in subsequent waves and post-pandemic management eroded their trust in the organisation.

This group of nurses suffered mental health impacts because of the COVID context, caring for high acuity patients and witnessing high death rates. Unlike nurses in the first journey, the perceived poor management of redeployment led them to attribute harm internally to within their organisation. This undermined their identification with their organisation.

Although these nurses experienced a decline in organisational identification and mental health, they nevertheless managed to maintain a sense of professional identity. A significant protective factor, common to all the nurses in this group, was having supportive teams during their redeployment period. Because of this, many in this group viewed redeployment overall as not a 'bad experience'. Their existing nurse identity was important for this group in making sense of redeployment because they viewed it as an integral part of being a nurse. Personal characteristics of

stoicism and resilience were also clear protective factors – despite typically working outside their comfort zones, this group of nurses felt that they did their duty:

> *I suppose the fact that you know, as- as a nurse, as a professional, I- I played my part, you know and, stepped forward and did what I needed to do, and that makes me feel good about the fact that you know I would be able to, to- to do that. And feel asked- played my part in that sense, it's- it's just sort of overshadowed by the, by how it was done, I think.*
>
> *Age 58, band 5*

> *I would just do it. That's what nurses do, and I guess that's what nurses will always do. That's what I would do, yeah. I'm not sure it would be offered as a choice to be honest. I work for the Trust, I have a specific role within that Trust, but my employment contract says you work for the Trust. Therefore, if there is a need elsewhere in the Trust that's what you do and we're all employed on that basis, so it isn't really a choice, but we just knuckle down and get on with it.*
>
> *Age 55, band 6*

Such attitudes meant that some sought the positives from the experience during their sense-making, and reflected on redeployment as a learning opportunity. These, combined with pre-existing perceptions of what being a nurse is, contributed to their nurse identity remaining intact.

> *I think, well it all just gets a bit hazy over time, doesn't it, I don't think it's all quite as fresh in my memory as it was. I don't feel traumatised really by anything that went on. I've tried to look back on it all as just a big learning curve really, it showed me… It taught me a lot about myself, it taught me that I'm quite resilient and I'll just, yeah, I just crack on and get it done really, so I've tried to look back on it in more of a positive way really because it's essentially been two years of my life and you don't want it all to be negative.*
>
> *Age 36, band 7*

Journey Three: Demolition of dual identities (nurses = 10) For this group of nurses, making sense of their redeployment experience resulted in an undermining of both their professional identity and organisational identification; it was a significant health impairment process. They often had negative experiences of redeployment before the pandemic. Echoing the experience of nurses in the second journey, nurses in this group felt disempowered through redeployment. They experienced poor communication, line management, inadequate preparation, poor visibility from senior leaders and no support. All but one nurse in this group were redeployed to a 'high risk' area; the other was a critical care nurse who received redeployed nurses. These nurses felt that their redeployment role did not match their skills or their competencies which left some of them feeling deskilled. Some felt that they had lost their voice within redeployment and described feeling unable to speak up if asked to perform tasks for which they were untrained or lacked experiences. The nurses struggled considerably with the quality of care that they were able to deliver during the pandemic; the shift to task-based nursing challenged their values and prevented them from ensuring the overall patient experience. This was particularly challenging when caring for patients that were dying without family around them. At time point 3 these nurses described demanding workloads, ongoing ad hoc redeployment and low morale among staff. They believed that their organisation had not learned from the pandemic. Nurses described losing the joy from nursing and feeling that the role was no longer patient experience focused. They also described how their experiences had affected their ability to deliver good care by, for example, reducing their patience. For these nurses, the management of redeployment during and following the pandemic had undermined their identification with their organisation. Their diminished ability to deliver care, coupled with their ongoing mental health struggles, undermined their identity as a nurse. Indeed, this group of nurses described the worst experiences of mental health with some going on sick leave, with long-term consequences. As a result, these nurses were also more likely to have moved roles or be applying for new posts.

> *I've never felt more of a number than I felt on that day and I've never felt so disheartened working for the Trust as I have felt this past 12 months.*
>
> *Age 24, band 6*

> *'I think nursing, it was all I ever wanted to do, and I got into nursing and I could accept that you were busy and short-staffed and people whinging about pay and things like that, I sort of accepted all that, but when you are […] stretched too far, pushed too far and it's put me off nursing really. I'd love to nurse when there's plenty of staff or you've got the time to look after patients. What you think you're going to do as a nurse anyway, when you look after patients, but there's so little patient contact now. So, yeah, nursing, it sounds awful but if someone told me they wanted to be nurse I'd be like I wouldn't advise it anymore or recommend it. […] my opinion of nursing's not very good at the moment.*
>
> *Age 32, band 5*

> *I suppose the negative is that I am now [laughs] you know, on the cusp of being burnt out and really struggling, and getting help around that, which is great, but it has, it has almost broken me professionally and has made me erm… very, I don't know, very sad.*
>
> *Age 50, band 7*

Development of recommendations from findings: sharing learning to inform future planning of redeployment strategies for nurses during the COVID-19 pandemic

We worked with a range of stakeholders to meet the secondary aim of this project: 'To produce national guidance and training for managers and policy makers tasked with managing the workforce in a crisis and during normal service delivery'. We engaged with 22 senior representatives from: Health Education England; Nursing and Midwifery Council; Royal College of Nursing; Unison; NHS Employers; NHS England and Improvement; NHS Providers; Improvement Academy; Care Opinion (patient perspective); and nursing academics over three contacts. Initially we ran a national stakeholder consultation which was followed by two rounds of feedback. The final round of feedback was underway at the time of writing this report.

A national stakeholder event was held online in May 2022 and was attended by 22 stakeholders. In preparation for the event, data from WP1 and WP2 were integrated to provide a holistic understanding of the redeployment processes from both the nurse manager and nurse perspectives. At the time of writing, a separate publication reporting this analysis was in preparation.

The event was recorded and transcribed, and researchers made notes. The research team first presented the key study findings, and stakeholders' views were sought through group discussions to explore potential gaps and alignment of the findings with national perspectives. All stakeholders fed back that the findings resonated with them and that no clear gaps were evident. In smaller group sessions the following four key challenges, representing the WP1 themes and integrated findings from WP2 (see *Table 6*) were discussed.

Four key questions were asked in each group to facilitate discussion and aid translation of findings to recommendations:

1. Initial thoughts and reflections on those findings.
2. What needs to change/happen differently to improve redeployment in the future?
3. How can you/the organisation you represent/others encourage approaches to redeployment that improve well-being and staff retention?
4. How can we translate today's discussions into action, with your help, going forward?

During these discussions, stakeholders expressed the need for improving future redeployment through recommendations and guidance and identified that there was a gap. They indicated that these recommendations were important to help rebuild the mental health and well-being of the workforce following the pandemic; to rebuild and reintegrate teams that were fractured during the pandemic; and to improve retention. Stakeholders directly discussed the need for particular recommendations, for example, 'There is a need to develop a formalised planned approach to future redeployment, which can be scaled up in future crisis settings'; and 'Nurse managers would benefit from guidance and toolkits on how to "do" redeployment'. They also discussed issues that would need to be considered when developing further recommendations, for example, 'Nurses' experiences of the trauma are normal, and we should be careful about pathologising and overusing terms such as PTSD.'

Following the event, the research team circulated a summary to stakeholders and sought further feedback to ensure accurate representation and interpretation of the discussions (see *Appendix 10* for a copy of the event summary). Following the event and subsequent feedback, the research team identified areas for national recommendations. The findings and data were then revisited by the research team to further develop and refine the recommendations.

A final round of engagement with stakeholders was completed to revise and approve the recommendations and identify tangible actions, in supporting the dissemination and implementation of the recommendations. Although implementing and testing the recommendations were outside the scope of this study, the following specific questions were put to stakeholders in an attempt to facilitate actions and plans for dissemination and implementation to the fullest extent:

1. Would your organisation be happy to endorse or promote these recommendations?
    a. If so, how?
    b. Is there any other work going on which can incorporate any of these recommendations?

TABLE 6 Summary of the group discussion topics

Group title	Prompts for discussion
1. Nurses not numbers	Primarily themes one, two and three Exploring: • What can be done to translate redeployment-related messages provided to nurse managers in a less disconnected way • How to develop directives that move away from numbers' focus to people • How to increase the transparency of decisions made/for information to go up and down the chain of command • How can we rebuild the relationships and trust between different levels of nurse managers, and the nurse managers with their teams
2. Supporting nurse managers	Primarily themes three, four, five and six Exploring the 'how to' of redeployment in relation to best practice and identifying areas for procedural support including: • How to support nurse managers to include an element of autonomy for nurses when communicating redeployment, considering that volunteering was rare and attitudes towards redeployment are so negative • How to support nurse managers in the consistent and appropriate identification of nurses for redeployment and what should be in place to support nurse managers in dealing with nurses who do not comply • How to rebuild teams following de-deployment and the trust lost between the different levels of management following the experiences during the pandemic
3. Supporting nurses in redeployed role	Primarily theme five Exploring: • What can be done to support nurses working in a redeployed role during ad hoc and mass redeployment • How teams that receive redeployed nurses can support redeployed nurses • How to ensure consistency when inducting and welcoming redeployed nurses to new teams
4. Supporting the recovery of the workforce	Primarily themes six and seven Exploring: • How to support mental health and well-being in an acceptable and non-tokenistic way • How to build on good practice of redeployment to create more positive experiences • How to shift existing negative attitudes towards redeployment

2. What can your organisation do to help get these recommendations into practice?

Responses to these questions will be used to specify the support available and networks for dissemination of the final recommendations. Examples of the support identified by our stakeholders include: NHS Employers showcasing and linking the recommendations on their website and sharing with their Employers Network; NHS Providers sharing the recommendations to all chief nurses in their Chief Nurse Network; NHS England sharing with the Integrated Care Systems Chief Nurse network; dissemination through RCN networks; academic nursing staff sharing at faculty and departmental meetings; regional and national HEE/NHSE meetings; national Council of Deans meetings; and PPIE representative dissemination on Twitter.

While some recommendations are more relevant to specific groups, these recommendations should be disseminated and implemented as a whole. Each recommendation purposely links with, and supports, other recommendations to holistically address all opportunities for improvement within the redeployment process. The findings and recommendations from this study identify key principles that should be considered when implementing redeployment to improve the process. Our clinical and policy stakeholders advised that these recommendations are relevant in supporting redeployment during 'normal' service delivery and also in times of pressure, for example, pandemic or surges; therefore, they are not specific to 'normal' or crisis setting but, instead, we anticipate that trusts will adopt and adapt them to suit different contexts. The research team is currently supporting two trusts in doing this and they are developing their own

redeployment strategies and resources grounded in the evidence from this study and the recommendations. Our stakeholders and clinical networks have informed us that, particularly given the current working circumstances and staffing shortages, redeployment is likely to continue for the foreseeable future and they welcome strategies, recommendations and guidance on how to do it well that are applicable immediately but also scalable in response to crisis or surges. A list of the (brief) recommendations is provided below (see *Report Supplementary Material 8* for the final, detailed, recommendations document).

The 11 recommendations are:

1. Develop and use a formalised process for nurse redeployment that can be scaled up rapidly in a crisis setting.

A formalised plan should be developed and supported at trust level, be operationalisable by nurse managers to support ad hoc day-to-day redeployment and be scalable in a crisis or surge setting.

2. Develop and use a formalised plan for nurse de-deployment.

De-deployment is a key stage of the redeployment process and should be incorporated into the redeployment plan. It should include a clear plan of when, how and by whom de-deployment should happen in an ad hoc day-to-day setting and be scalable in a crisis or surge setting.

3. Provide nurse managers with the skills and resources to redeploy nurses appropriately.

Inconsistent approaches to nurse redeployment should be avoided by taking a systematic approach for how to identify the most appropriate nurses to redeploy and how that happens. Nurse managers tasked with this should be provided with the knowledge, skills, training and resources to achieve that.

4. Ensure nurse managers have the skills to effectively communicate redeployment requests.

This could be supported through training similar to 'having difficult conversations' with patients or compassionate leadership training to improve how redeployment requests are broached, what information is conveyed during the request, and maintaining civility during the discussions.

5. Produce clear guidance on line management responsibilities for nurses during redeployment.

We recommend that trust HR departments, in consultation with nurse leaders and managers, develop clear guidance on the line management responsibility for redeployed nurses.

6. Develop and use a consistent approach for inducting redeployed nurses and integrating into new teams.

A consistent, warm and structured orientation including clinical information, role expectations and team introductions should be provided by all teams receiving redeployed nurses.

7. Communicate the rationale behind redeployment decisions throughout the chain of command.

The rationale underpinning decisions made at each stage of the redeployment process should be communicated down the chain of command, alongside the decisions. This could be achieved via a shared professional decision-making model to aid understanding of redeployment decisions and reduce disconnect at all stages of the chain of command.

8. Create a culture that reframes attitudes towards future nurse redeployment by promoting the positives of redeployment.

Existing negative attitudes towards redeployment are contributing to incivility and conflict during the redeployment process. Organisations should promote the positives of redeployment and ensure nurses are supported in experiencing these positives through implementing best practice redeployment.

9. Instil realistic expectations of redeployment and its benefits in student and newly qualified nurses.

Student and newly qualified nurses should be informed about the likelihood of being redeployed while working as a nurse, with information on why it is important to achieve patient safety and safe staffing ratios, a balance of the benefits and drawbacks of redeployment, what to expect and how it should be handled.

10. Support the reintegration and rebuilding of team dynamics following (mass) redeployment.

Teams should be reintegrated following a period of redeployment through having an opportunity to share experiences from working in their redeployed role and/or through times of crisis or surges, so teams have a shared understanding of each other's experiences.

11. Support and rebuild the mental health and well-being of the nursing workforce following mass redeployment during COVID-19.

The mental health and well-being of the workforce needs to be immediately addressed through appropriate psychological and well-being support. Support should focus on meeting the basic needs of nursing staff.

Discussion

This study has provided new insights into the management and operationalisation of nurse redeployment in acute hospital trusts prior to and during the early waves of the COVID-19 pandemic. Further, it has shed light on the ways that nurses made sense of redeployment during the pandemic and how they perceived that this had affected their mental health and well-being, job performance and retention intentions. Overall, this programme of research found that the rapid redeployment of nurses under uncertain times was a 'numbers game'. The enactment of redeployment under a command-and-control structure prioritised meeting staffing requirements to maintain patient safety, but this was not often perceived to be effectively balanced with strategies to support and protect the emotional well-being of nurse managers and nurses affected by redeployment. Although senior teams within trusts in this study, who themselves were working under considerable pressure, were aware of the impacts of the pandemic on staff and did attempt to put in place resources to support staff, these did not always meet staff needs. This meant that organisational learning throughout waves of the pandemic was perceived to be limited by the nurses in this study. Our study findings support early concerns identified in the wider literature[4–9] regarding the potential longer-term impacts of the pandemic on nurse well-being and retention and, therefore, potentially patient safety.

Further research on the experiences of nurse redeployment during the COVID-19 pandemic is beginning to emerge. In general, many of our key findings resonate with other studies.[6,33,38–44] Our finding that nurse managers, in the absence of sufficient guidance, struggled with the emotional burden of meeting the dual demands of enacting redeployment decisions while balancing the emotional needs of their staff, has been observed elsewhere.[40] Equally, other work has found that nurses perceived there to be a lack of transparent and consistent communication from managers with some feeling resentment towards senior leaders who they considered to be invisible.[39]

The ethical perspective[3] supporting our programme theory (see *Figure 1*) considered that there may be different ethical models associated with redeployment processes and decisions, which could have an impact on nurse experiences. The findings of this study showed that the ethical models 'volunteering' and 'no choice' which were proposed by Dunn and colleagues[3] were frequently used in practice. The volunteering approach which involves staff opting in, allowed some to retain autonomy over redeployment and often led to a more positive outlook and experience of redeployment. However, we also found that less nurses volunteered to be redeployed in subsequent waves. The 'no choice' approach to redeployment has previously been described as unfair and unethical as it leaves nurses with no autonomy in the process or control over their role.[34] In this study, autonomy and control were central to nurse sense-making journeys, with those who felt they had lost control, losing their nursing identity and suffering poorer mental health.

Our programme theory (see *Figure 1*), which was also underpinned by sense-making and job design research, considered that nurse experience and sense-making of redeployment could affect outcomes.[10,15–17,19] According to sense-making theory,[10] individuals extract 'cues' from their context in order to understand what information is relevant or which explanations for the situation are acceptable.[40–41] Examples of cues identified in this study include communication, perceived autonomy and support, and how these work together to allow individuals to develop a holistic sense of their experience.[10] These cues have also been identified as being associated with both professional and organisation identity in the wider literature. For example, effective communication has been identified as an important leadership behaviour when promoting organisational identification during a period of change;[45] high levels of autonomy for nurses have been found to increase both professional and organisation identity;[46] and perceived organisational support has been associated with greater organisational identification.[47]

In this study, those who had better experiences of these cues (e.g. nurses experiencing journeys one and two) retained their sense of professional identity as redeployment was perceived as part of 'being a nurse'.[48] The importance of a sense of duty and strong sense of professionalism which nurses held during the pandemic has also been reported elsewhere.[39] However, poor experiences of these cues, as was often experienced in this study, for example through poor communication, were associated with erosion of professional identity and organisational identification. Similarly, negative experiences associated with these

cues have been reported in the wider literature and have included: feelings of uncertainty;[48] lack of training and skills;[42] feeling unprepared[43] for redeployment; concerns for safety; poor communication; lack of line manager support; presence of senior leaders;[39] COVID context;[38] and family concerns.[42]

Moving through our theory to outcomes, we found that retaining a sense or losing a sense of professional identity and organisational identification was related to outcomes. For example, those who lost their professional identity and organisational identification reported in the survey that they experienced worse mental health outcomes and greatest intention to leave their trust, nursing or the NHS. This is supported by other literature as organisational identification has been shown to be important for turnover[49,50] and job satisfaction.[51]

The findings in this study also speak to job design research,[15–17] as they demonstrate how redeployment increased job demands by giving nurses work in unfamiliar settings and unknown tasks, in many cases, reduced their control and provided little support for them to adjust to their redeployment roles. As job demands, autonomy and support are dimensions of the job demands-resources model[18] which explains stress and burnout, it is evident how our findings fit within this job design framework.

Of particular interest, is that over half of the WP2 nurses in our study reported either journey two (n = 24) or three (n = 10), both of which represent an undermining of identification with their organisation. Research shows that individuals who have withdrawn from their organisation are less likely to go the extra mile at work.[52] As the NHS is critically short-staffed it relies on the goodwill of nurses to maintain patient safety[53] and commit to unpaid overtime. Although these sense-making journeys, together with their related outcomes, have not been explicitly reported elsewhere, other studies across the UK[5,8] and internationally[6] have reported on the profound impact of the pandemic on nurses' mental health and intentions to leave their roles. The study reports similar levels of severe burnout and intention to leave as other studies.[6,33]

Rasmussen and colleagues have outlined the limited voice nurses have had in the national response to the pandemic and have called for nurses to play an integral role in the planning and response to the COVID pandemic and other adverse events.[44] Our study responds to this call by foregrounding nurses' experiences and using the learning from this study to support the development of 11 key recommendations for policy and practice. These recommendations aim to ensure that future redeployment, both routine and crisis driven, are ethically underpinned by approaches that meet the dual needs of the service and the nursing workforce. We are hopeful that the operationalisation of these recommendations across trusts may impact on the success of future redeployment particularly in terms of nurses' well-being, job performance and retention.

Study strengths

First, we adopted pragmatic and flexible approaches throughout, which resulted in successfully completing the study despite the challenging working circumstances and study delays brought about by the COVID-19 pandemic. Engaging with staff at the beginning of the second major UK wave was particularly challenging. We worked with numerous key groups across sites, adopting multipronged site-specific advertising and recruitment approaches, to overcome the challenges experienced and exceed our recruitment target of 60 nurses for WP2. This was a particular achievement given that the original target of 45 was increased because of early concerns about attrition from organisational pressures on staff and the sensitive nature of the research topic. Further, attrition was much lower than anticipated as the research team worked hard to retain participants through appropriate handling of the sensitive research topic. Although we planned to capture experiences during anticipated 'early', 'mid' and 'post' pandemic phases, the pandemic did not progress as anticipated. Data collection ultimately explored experiences across major waves of the pandemic, thus capturing a wide range of experiences and meeting the overarching study aim to understand experiences and sense-making across time.

Challenges faced and lessons learnt for future research

Although we originally planned for in-person data collection, most of our interviews and all focus groups were conducted online owing to further waves of the COVID-19 pandemic. Using virtual focus groups is a fairly new approach but they have been found to be theoretically sound[54] and as rigorous as face-to-face focus groups.[55] Organisational pressures led to frequent interview postponements. However, staff remained engaged. Nurses' desire to tell their stories (often for the first time) and our ability to create a safe space for open conversation, provided incredibly rich data that ultimately led us to uncover issues (such as the challenges for nurse managers) that had previously received limited attention. Early concerns that participation in the research might result in nurse distress were unfounded and participants viewed their research experience as 'therapeutic' or 'cathartic'.

Real world impact

Impact on participating nurses and trust staff

During the study, nurse participants told us that being afforded the opportunity to tell their story in a safe environment with dedicated time was 'therapeutic' and 'cathartic' and that this supported them to process their experience and mental health. Additionally, post-study testimonials from members of the SAG revealed changes in their approaches to redeployment in their clinical role as a consequence of their involvement in the study, for example, showing more compassion and embracing the positives.

Impact on participating trusts

The research team has remained engaged with the sites and, at the time of writing, has already met with the chief nurse team at two of the sites to share the study findings and recommendations with a view to exploring local implementation. At Site A 'induction cards' to welcome nurses into redeployed teams are being developed and rolled out in response to the study findings around the importance of systematically welcoming and inducting redeployed nurses.

While recruiting participants at Site A the research team were contacted by non-nursing staff, for example, healthcare assistants, finance, porters, and security staff who had been redeployed and wanted to share their experiences. As these individuals were not within the scope for inclusion in the study, the research team followed it up with the organisation, who organised and held a group discussion in the form of a 'Schwartz Round' with these individuals and their colleagues focusing on redeployment experiences.

Regional impact

The findings have contributed to the local and regional Professional Nurse Advocate (PNA) strategy. Redeployment has been included as a compulsory topic to be covered by PNAs as part of their role, as a way to increase education and support PNAs' understanding of the negative and positive impacts that redeployment can have on nurses.

National impact

Furthermore, the findings are currently contributing to the shaping of national recommendations provided by the Healthcare Safety Investigation Branch (HSIB). We have offered advice to HSIB who were undertaking two investigations where nurse redeployment was identified as a key contributory factor. They used findings from our research to help shape their recommendations.

Real world impacts are likely to be realised beyond the completion of this study. Our engagement work at national and international conferences, our key stakeholder event, and local and regional workforce strategy meetings have been positively received with our findings and associated recommendations resonating at multiple levels. We have developed key recommendations from the study findings and are hopeful our senior stakeholders will support in disseminating these to organisations nationally. We are also in the process of developing training programmes for nurse managers with the NHS Leadership Academy and Florence Nightingale Foundation to help with the implementation of recommendations 3, 4 and 5 (see *Development of recommendations from findings: sharing learning to inform future planning of redeployment strategies for nurses during the COVID-19 pandemic*).

Study limitations

There are two main limitations of the study. First, we were unable to achieve a sample which represented the ethnic diversity within the sites. Having this diversity of experience in our sample would undoubtedly have helped us to understand better the experience of those with increased risk status from COVID-19[56] and how this influenced or played out in redeployment. We might also have gained an understanding of whether there were inequalities in redeployment based on ethnicity as there were for junior versus more senior nurses. Research is required to capture these experiences to ensure standardisation in risk assessments[57] and better safety for those at greatest risk. Second, the longitudinal quantitative data collection in WP2 was planned to allow some understanding of how key measures of health and well-being changed across the pandemic. At the time of planning, we anticipated that time point 3 might be after the pandemic. As it was, trusts and participants came into the study at different times, there was a significant overlap between time points and the pandemic was ongoing at the last point of data collection. This meant that the quantitative data could not be used to assess key outcomes at discrete points in the pandemic. Finally, the adapted survey measures were only informally assessed for face validity and were not subject to further psychometric testing, because of the exceptional circumstances and the project timelines.

Research recommendations

Future research should explore the long-term impacts of redeployment on nurse mental health and well-being, job performance, job retention and workforce recovery. This should be conducted on a larger scale and could utilise a national survey approach. In particular, the experiences of nurses from ethnic minority backgrounds

should be explored further as these experiences were not proportionally represented within our findings. This should not necessarily focus solely on nurses, but also include other NHS staff that experience redeployment, for example in a crisis setting, in response to surges, or to manage staffing vacancies. This may include other clinical staff, for example healthcare assistants, midwives, dieticians, physiotherapists, occupational therapists, speech and language therapists and non-clinical staff, for example HR, finance, porters and security staff. Furthermore, how trusts manage ongoing redeployment and operationalise different models going forward should also be explored. This could include follow-up of the implementation, efficacy and acceptability of the recommendations generated from this study.

Conclusions, take-home messages and implications for decision-makers

The rapid and mass redeployment of nurses in NHS trusts in response to the COVID-19 pandemic was a 'numbers game' to prioritise safe staffing levels. In general, the management of redeployment had negative ramifications for nurses' mental health, job performance and retention intentions. It is also important to note that when redeployment is managed well it can also have positive outcomes for nurses' mental health, job performance and retention intentions. Importantly our findings appear to be widely generalisable as they resonate with many other studies within the UK and internationally. The recommendations generated from this study can be used to guide change during normal service delivery and in future crisis and surge settings; however, this will require active dissemination to, and ongoing engagement and commitment from, policy makers and decision-makers. The threat is that, in balancing other challenges within the NHS, these recommendations are seen as part of a past event from which there is a need to move away, rather than an essential plan for future system resilience. A robust mechanism that can facilitate and evaluate the delivery and implementation of these recommendations is needed.

Additional information

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Data-sharing statement

All data requests should be submitted to the corresponding author for consideration. Access to anonymised data may be granted following review.

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Information governance statement

Bradford Teaching Hospitals NHS Foundation Trust is committed to handling all personal information in line with the UK Data Protection Act (2018) and the General Data Protection Regulation (EU GDPR) 2016/679. Under the Data Protection legislation, Information Services, Bradford Royal Infirmary, Duckworth Lane, Bradford, BD9 6RJ, is the Data Controller, and you can find out more about how we handle personal data, including how to exercise your individual rights and the contact details for our Data Protection Officer here https://www.bradfordhospitals.nhs.uk/privacy-statement/.

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Publications

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List of abbreviations

CSE	core self-evaluation
EDI	equality, diversity and inclusion
HR	human resources
HSIB	Healthcare Safety Investigation Branch
GHQ	General Health Questionnaire
NHS	National Health Service
PIS	participant information sheet
PMG	Programme Management Group
PNA	Professional Nurse Advocate
PPIE	patient and public involvement and engagement
PTSD	post-traumatic stress disorder
SARS	severe recruit respiratory syndrome
SSC	Scientific Steering Committee
WP	work package

List of supplementary material

Report Supplementary Material 1 Participant information sheet (example)

Report Supplementary Material 2 Consent form (sample)

Report Supplementary Material 3 Topic guide for WP1 interview

Report Supplementary Material 4 WP2 survey

Report Supplementary Material 5 Pen portrait example

Report Supplementary Material 6 CommC group contributions

Report Supplementary Material 7 Ethnic minorities specific materials (sample)

Report Supplementary Material 8 Final study recommendations

Supplementary material can be found on the NIHR Journals Library report page (https://doi.org/10.3310/EWPE7103).

Supplementary material has been provided by the authors to support the report and any files provided at submission will have been seen by peer reviewers, but not extensively reviewed. Any supplementary material provided at a later stage in the process may not have been peer reviewed.

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Appendix 1

TABLE 7 Outcomes and measures used in WP2

Study outcome	Measure[a]	Number of items	Scoring	Modifications
Programme theory component: health and well-being				
Sleep quality	Single-item sleep quality scale[58]	1	Range 0–10; Higher score = better sleep	Only to the duration of time on which participants were to reflect
Well-being	General Health Questionnaire-12[59,60]	12	Range 1–4; Higher score = better well-being	None
Burnout	Oldenburg Burnout Inventory[61]	16	Range 1–5; Higher score = more burnout	None

TABLE 7 Outcomes and measures used in WP2 (*continued*)

Study outcome	Measure[a]	Number of items	Scoring	Modifications
Programme theory component: cognitive resources				
Needs satisfaction (competence, autonomy, relatedness)	Balanced measure of psychological needs scale[62]	18	Range 1–5; Higher score = higher level of competency, autonomy and relatedness need	None
Personal resilience	Employee resilience scale[63] Brief resilience questionnaire[64]	9; 6	Range 1–5; Higher score = more resilient	None
CSEs	The CSEs scale[65]	12	Range 1–5; Higher score = higher CSE	None
Programme theory component: retention or turnover				
Turnover intentions	Job retention intentions[66]	3	Range 1–5; Higher score = higher leave intentions	One item replaced to capture longer-term intentions
Programme theory component: safety and performance				
Work performance	1. *Task performance* (information; co-ordination of care; social support; technical care) 2. *Contextual performance* (interpersonal support; job-task support; compliance; volunteering for additional duties) Nurse performance scale[67]	41	Range 8–56; Higher score = better performance	Through consultation with staff advisors, items were reduced to 2727 by merging and omitting those that either asked for similar things or were irrelevant to the COVID-19 context

a For further details about item modification, see *Report Supplementary Material 4*.

Appendix 2

TABLE 8 SAG study contributions

Month and stage in study	Main activities	Outcomes
1. Month 2 – Study set-up	Reviewing the length and content of Nurse Performance Scale (Greenslade and Jimmieson, 2007)[67] in preparation for WP2.	Reduction in the number of items (to make less burdensome) in the scale by omission (irrelevance to current practices) and merging (similar items). Rewording some items to make more user-friendly. All items were reviewed to ensure ongoing face validity with the SAG members. They piloted all data collection tools as part of this set-up stage.
2. Month 4 – Recruitment to WP1 at one site, set-up at others	Refine data collection measures for WP2 and co-design distress protocol to support participants.	Suggested changes to the topic guide were incorporated. Guidance on how to manage distressed participants was provided and feedback on support materials and signposted resources ensured their validity, usefulness and credibility.
3. Month 6 – Recruitment to WP1 at two sites	Provide advice: on timely, acceptable and efficient approaches to recruiting WP1 participants; on managing WP1 focus groups; and maintaining engagement of nurses in WP2.	SAG advised on: job bands to target for WP1; clinical areas with high redeployment; key individuals/job roles with most reach for promoting the study. Contextual information at site provided to guide researchers in their approaches. SAG suggested a range of practical strategies for managing potential hierarchy in focus groups which were built into the focus groups topic guide and procedures. Suggestion such as WhatsApp or Facebook groups for maintaining WP2 engagement was considered but respectively not included due to concerns about confidentiality and the need for close facilitation. Thank you cards were also suggested and incorporated into the study.

continued

TABLE 8 SAG study contributions (*continued*)

Month and stage in study	Main activities	Outcomes
4. Month 8 – Data collection to WP1 complete at two sites, ongoing at the third. Recruitment to WP2 underway at all sites.	Provide feedback on recruitment, initial findings from WP2 and sense checking on approaches to feeding back findings to sites.	SAG members' experiences of redeployment aligned with emerging findings providing the research team with and offering suggestions for improvements.
5. Month 12 – Recruitment complete for WP1. WP2 recruitment and data collection for TP3s due to commence.	Advise on: ways to identify and engage potential participants for WP2; omitting TP2 survey and the appropriate timescales between data collection time points for WP2; and review the data collection materials for TP3.	SAG suggested alternative (to e-mails) ways to engage staff nurses such as WhatsApp groups and team group messaging. Particular clinical areas with higher rates of redeployment were identified by the SAG as potential places to approach staff. Members also offered to share study information within their teams. These suggestions were actioned by the research team and led to increased recruitment. SAG felt it important to keep T2 survey and use it to check in with participants. A minimum of 2 months between T1 and T3 was suggested. SAG advised that T3 interview should start with a recap of T1 interview to guide them into discussing their current perceptions. Suggestions incorporated into the topic guide and interview strategy for TP3.
6. Month 14 – Data collection complete and analysis part complete. Stakeholder event in planning.	Sense checking emergent findings for WP1 and advise on stakeholder organisations to invite to consultation event.	SAG members recognised that nurse managers' experiences and the nurse experience were closely related and agreed that doing a combined WP1 and WP2 would be valuable. SAG members identified particular areas for recommendation including the training needs of nurse managers. Compassionate responses from the SAG towards nurse managers' experiences suggested to the research team that these sorts of findings from the study would be well-received by nurses. SAG advised to bring stakeholders of all levels together, ensuring human messages and experiences of redeployment were not lost, and to ensure clinical perspective was heard if the stakeholders were not clinical. Some key organisations or individuals to be invited were identified by the SAG.
7. Month 19 – Pre-stakeholder event, analysis part complete.	Presentation of Part 1 findings, sense checking integration of WP1 and WP2 and advise on content and key areas of discussion of stakeholder event.	SAG members discussed how the integration of nurse managers' and nurses' perspectives were important to understand fully redeployment and the impact it had. Feedback was provided on the names of themes and language used to ensure it resonated with nurses at all levels. SAG suggested important areas of discussion to be raised with stakeholders.
8. Month 21 – Post stakeholder event.	Providing feedback on the recommendations after the stakeholder event. Official close of SAG.	SAG members made various comments including suggestions on exploring how our findings would link with the PNA role, improving communication and kindness. The SAG valued being part of the research, offered to provide testimonials and provide more input if required.

Appendix 3

TABLE 9 Themes, journeys and illustrative quotes

Part one analysis	
Themes and subthemes	*Illustrative quotes*
Theme 1: The pre-existing foundations Subtheme (a) Pre-pandemic redeployment processes Subtheme (b) Attitudes and cultures towards and experiences of pre-pandemic redeployment	*'A little bit of a redeployment within our division. So if somebody was short then we would potentially move staff from one ward to another within the children's division but never outside, never outside of the division.'* (L2) *'So in the redeployment on a day to basis, yes it did happen, so occasionally we would deploy people to support areas that were short of staff so that is something that we routinely do. We evaluate on a daily basis and we do that. On that aspect yes, was happening before COVID. The other reason we redeploy the people as well if for any medical reason they are not suitable for the area they are working in and we feel they would benefit from moving to another area, so we do redeploy staff on that basis as well. Or if a staff member feels that they would like to work in a different environment for different reasons as well we sometimes do that through redeployment.'* (O1) *'So outside of COVID, as I say, there would be, with some people there would be a lot of upset about asking them to move and that could escalate in various ways. Of yeah, yes they would, well, either flatly refuse to go say they're going home, I'm not going to do it. Erm, Yeah, or going, going and then going off sick for a week afterwards. But you know that's not completely unusual in my workplace […]it's a bit of a vicious circle 'cause you're like […] oh well, we just we know that person is not going to move we won't even ask them, we'll ask whoever, and then it falls to the as I say, the relatively junior young ones that are a bit more flexible or not going to argue, so they go.'* (O17) *'Yeah people generally are not happy to move, to be honest. Because, even pre-COVID, it's an ongoing thing, so they might be, you know, really short-staffed in one area, say registered nurses, but they need to be safe clinically in that area, they need to move people. Some people don't like it because they like the area that they work in. It's a difficult conversation because you don't want to be, you know, threatening them with anything, but it's more about you know you are a staff nurse for the Trust. You might work in a certain area, but it's actually if you're there, you can then support a different area.'* (B14)
Theme 2: 'Unprecedented territory' Subtheme (a) Information available about the virus and central directives Subtheme (b) Concerns relating to COVID outside of work Subtheme (c) Expectations of COVID Subtheme (d) Anticipatory actions for redeployment	*'I think our critical care team had been having lots of meetings leading up to the first wave because they had been in discussion with Italy etc so they were a little bit more prepared than the rest of the organisation I think and they had already started to reach out to previous colleagues and see what skills we had in the rest of the organisation for critical care because I think we realised it was going to affect ITU more than anywhere else. And they had already started to look at which of our critical cares could potentially become simply COVID and what the overspill would look like, once we'd filled area A, where were we then going to overspill to and in what order and they had already looked at that with the medics. So there were good conversations going on with critical care consultants and the lead nurses for the departments. We weren't quite sure what was coming like everybody else.'* (O2) *'I think I think we were very naive when we went into this pandemic. In fact, I think we all kind of thought that three to six months we'd be in and out of it. And then that we'd be on a journey back to normal. I don't think any of us envisaged that we would be doing this for 12 months. Certainly, when we stopped doing general surgery. Because I think the biggest impact has been on those surgical nurses. Those staff were predominantly from two wards, we lifted and shifted them, we tried to move them as teams […] But then as things progressed […] it wasn't possible to keep everybody together all the time. And then we start to split teams, and it became quite reactive to the situation we found ourselves in. So, we weren't able to plan as strategically. You know people, and what's quite shocking now is that actually when we're looking into individuals, because you need somebody to move you open it [the Roster] up and they've had 12 moves. […] I think we're all quite shocked.'* (B6) *'I felt there wasn't a plan and I kept on saying, "what is the plan?" Because I had plans here about what we were going to do and you would expect me to have those plans in place, but what's the plan for our division? And I never got anything back and so I did, yeah, I was quite angry.'* L15 *'Yeah, I'm I'm pretty pissed off about it really. You know it. It was just so so disorganised a complete knee jerk reaction. […] Let's pull in every single qualified nurse within the trust. Just get them dumped on.'* (WP2, 2B50) *'It doesn't seem to be well planned or- or well organised everything, we're- we're- we're firefighting on a daily basis.'* (2B20, WP2)

continued

TABLE 9 Themes, journeys and illustrative quotes (*continued*)

Theme 3. 'Pawns on a chessboard' Subtheme (a) Changes to working structure Subtheme (b) Models, strategies and rationale used to identify nurses to redeploy Subtheme (c) Preparing nurses for redeployment	*'You take into account skills, who's able to go. But the group of who could go would quickly dwindle into quite small numbers of who would go because it'll be, oh, I don't know. [Name of nurses] won't go. She refuses to go anywhere. But another person will go, so it would it, ended up being, generally I would say the cohort of relatively newly qualified people who were a bit more flexible to go and do other things would move and those that have been there for a long time won't.'* (O17) *'At first everyone was being redeployed on a daily basis, so I was trying to say, right, well you know you went yesterday so you stay on the department today, you know you stay, you know and I was trying to make it as fair as possible […] but I was also having to think about the skill mix as well, so I had to make sure that the people that stayed in the department were those that were able to do everything that was expected of them, you know, because we do have obviously different levels of staff that are all training at different levels, so I needed those people that I knew if I threw something at them, they'd be able to do it. So I did have to go along with that as well, but then I also had to think about who was at risk themselves, you know who'd been fit tested for example, because that was still kind of all going on and making sure everyone was fit tested at the same time, so I had to think of their health and their background as well and work, you know, if we had a COVID patient, was that person able to be with that patient or would it put them at risk as well, so it was a multitude of things that we had to think about, which I don't think the staff realised we were having to do, they just saw it as "I'm going, I've got to go" you know they didn't see the pressure that it was to look at the skill mix at the same time.'* (B17) *'I would say I didn't have a choice at all and to be honest with you and there was a very big favouritism factor and this is true. I don't need to like do research or anything, this is like what everyone knows is true, and I would say I think 7 people stayed and they were all like friends with each other if you know what I mean. Everyone else was sent to intensive care, no buts, no ifs[…] But just thinking about it, from a manager's perspective, you know they probably had a lot of pressure to come up with a certain number of staff, and they probably thought like the best thing to do is just to send everyone without saying anything else?'* (WP2, 2L2) *'I think asking for volunteers is always a good thing, because then you're going to get people who actually don't mind moving or have actually relished the experience. So we had a nursing associate who was redeployed into critical care who absolutely loved it. She learnt load of skills and she came back feeling that she'd actually made a difference and she volunteered. So of course the best thing to do would be to ask for volunteers, obviously, sometimes you're not going to get enough, and so there is that, but in terms of good practice it was about, when you were trying to convince people to move, it's not just about you need to move because they're short, it's about you're moving, but these are skills you're going to learn from it, this is the difference that you're making, and this is the support you're going to get, and so it's kind of making people feel valued and not just dumped, which is what some people felt like they were. Yeah, so it's, I think from a good practice point of view that, yeah, that was what I saw as well.'* (L2) *'I think it's much better if you can get the person to agree to being deployed, rather than saying you're going to be deployed, well I'm sorry you just gotta do it. If someone really, really doesn't want to do it and there's a reason behind that, I think we have to ask is there a reason and see if it's justified, you know, I think forcing someone to do something like working on the respiratory ward at that point, forcing somebody to do it you're, well yeah you're just asking for trouble at the end of the day.'* (WP2 2B11) *'I hated it, I felt like I was dealing with pawns on a chessboard, we'll move this one here, and this one here, this one here, and you know, I would regularly stop and say to the sisters "oh my God, these are people, these are their jobs and we're just literally moving them around them and plugging gaps with them." And yeah I found it really hard actually because I thought, I know they hate moving I know they don't want to have to do it and we kind of making them do it quite regularly.'* (O14) *'I think from a site team [senior leader's] point of view I think they're very good at sitting completely out of the way and sort of looking at numbers without actually thinking of the effect of what moving people around is doing really, and I don't think they understand that, and I think there was there was an awful lot of, "why don't they come and work here?" […] "Why can't a member of the site team get off their backsides."'* (B10) *'There were people who were unable to be moved for whatever reason, and I guess the, the* ask *was not of individuals, it was of the service. So, if that one person can't go- move, can you find somebody else.'* (L11)

TABLE 9 Themes, journeys and illustrative quotes (*continued*)

Theme 4: A challenging negotiation Subtheme (a) Communicating with nurses about redeployment Subtheme (b) Managing conflict and push-back Subtheme (c) Communicating with colleagues about redeployment Subtheme (d) Pushing back to top-level requests for redeployment Subtheme (e): Changes to communication due to feedback loop	*'So sometimes you would have to have those challenging conversations with a member of staff to say, you know, I appreciate you moved yesterday, but you know looking at the exact thing we have today, we cannot move the only senior experienced person on shift and we cannot move the person who started two days ago. You are the only person who would safely move and support the other departments. Just having those challenging conversations in some situations.'* (O1) *'I've had some really mean things said to me […] "if you take a nurse off me, you're leaving my area unsafe, and if anything happens overnight, this is on you. This is your decision." […] I've laid in bed, you know, three o'clock in morning when I've finished late, I'm back in for seven and I think like, "God, could I have done something different? What if something does happen?"'* (B2) *'When the senior sister, addressed it to me first and I asked her why she said, you are an employee of the trust, you're not an employee of Ward [number], therefore you need to rotate wherever we tell you and this is in your contract. You can't really argue against it, and so it was. It felt like I was against someone who was, who had like a defence armour, almost like I couldn't get through to them and get them to empathise with this individual. In particular, it wasn't with the matron as I said, the matron was very understanding and compassionate, but again, she reiterated I'm in a difficult position I need as many staff members as possible, but yeah it was it was really crap, I'll be honest.'* (2B42) *'And there were times when I did get frustrated and said, "there's no, no more I can give you, I can't give you any more", "they're 'down to bare bones'" was a typical sentence, even now, "well, can you find me another nurse, can you, can you redeploy…", I said "I can't, I've looked, I've gone with a fine-tooth comb and I can't find anything or anyone to give you, we're gonna have to look at plan B, look at, five, six wards and see what dynamic and what mixture we could do". […] So, it was frustrating for me and people like me who the ADNs were asking, you need to move staff in to give more, give, give, and we just couldn't. It's hard. Still is hard I can't give you something I haven't got [laughs].'* (PB1) *'From a higher level, we were told this is what we needed to do and we might feedback on a kind of on a flat plane, if that makes sense, if you're looking at adult services in comparison to children services, so I might speak to my counterpart in adult services and say this might work better next time, but when it came to the whole higher level command and control, no there was no feedback going up the chain at all.'* (L2)
Theme 5: 'I had to look after them' Subtheme (a) Managers supporting the nurses they redeployed Subtheme (b) Supporting nurses in redeployed role Subtheme (c) Supporting teams who receive redeployed nurse	*'I have never felt more responsible for them. So, […] I went to see them every single day that they were there and just to check in on them. […] It felt a bit like sending troops to war like they were just one of numbers really that were being sent in and that I felt I had to look after them.'* (O17) *'Certainly the staff appreciated it, so I actually would either e-mail them, phone them or physically I would say "should I come up and see you?", it was difficult to see them on the ward when they're working 'cause then you're trying to go around their break, I think they appreciated it. I think they appreciated me going to work on the ward and the band sevens, that was noted.'* (L4) *'Cos the […] whole time I was in there I never once had a well-being call from my line manager to ask how I was and how I was coping with it. You know, so to me that just tells you everything. I mean, my line manager, I think I saw her twice when I was in the coffee room on ICU on a break and she was just passing in and out.'* (WP2 2B20) *'We always showed people around, show them where things were, but I think our main thing was, "you're not in charge of this patient". You know, "we will do everything, you're there to make sure that they're safe and shout if something alarms you". […] But there wasn't an orientation booklet or anything that we did for them.'* (B10) *'No there was. None of that at all, and I think the issue also was that you know staff were coming from very many different areas, so it was the same issue for them really. And in terms of like taking a patient to a toilet, right? Just hang on where? Where is that nearest toilet, you know? […] Yeah, so that orientation, no, forget it, it was just getting get on with it. Work it out yourself.'* (WP2 2B50)

TABLE 9 Themes, journeys and illustrative quotes (*continued*)

Theme 6: 'Getting them back was a different kettle of fish' Subtheme (a) Process (lack of) for de-deployment Subtheme (b) Impact on team dynamics Subtheme (c) Changes to de-deployment due to feedback loop	*'So there's a daily e-mail that goes around saying how many COVID patients we've got at the Trust and you could see this number just dropping every day. And yet we were being told they can't have them back, 'cause we're still really busy. There's a little bit of am I actually just staffing your vacancies, are my team just staying there filling gaps in rosters.'* (O17) *'The team is different now. I thought people would come back and feel; "God I'm so glad to be back and I'm so grateful to work in outpatients", but that's not the case. […] They're not getting on like they used to. Before, I'd say their teamwork was amazing. […] but there's been a lot of petty infighting, moaning and people just not getting on. And there's clearly resentment around those that went and those that didn't go.'* (L4) *'It felt nice to come back to an area where I had. I was like familiar with. But it was just, I don't know if there so one of the things that wasn't done very well was there was like a day that suddenly appeared on my rota. There was no communication about it and it was supposed to be a debrief day about your experience and I then I then took it off my rota 'cause I was like. I don't know what that is no one had sent me any e-mails. And then about a week later I got an e-mail to say, oh, you have been invited to this day blah blah blah. No, I couldn't actually attend 'cause I couldn't get any childcare and I was a bit like you're just assuming that I can come […] but it was quite nice to just be back where you felt a little bit safe I guess.'* (WP2 2L14) *'So when people came back there was obviously a massive fuss, everyone coming back together, but it influenced my decisions in the second redeployment about who had been left behind and how people had reacted to them so the charge nurse had stayed behind in the first wave […] I felt that the staff were less tolerant of him I suppose, because he wasn't redeployed so that influenced our decisions for the next redeployment and he went […] So yeah, it definitely influenced the way we did it the second time.'* (L15) *'I suppose my opinion was that, you know, at the very top of the Trust, there's a, understanding of what goes on, and they're being fed that information from, sort of a supporting middle- middle managers, when it's a completely different position sometimes under that and I'm not sure that that position is understood.'* (WP2, 2B20)
Theme 7. 'We have all been impacted in different ways and we need to acknowledge that' Subtheme (a) Perceived experiences of nurses Subtheme (b) Experience of nurse managers Subtheme (c) Team dynamics Sub-theme (d) COVID hangover Subtheme (e) Attitudes towards future redeployment	*'You'd have people kind of venting to you, saying […] "it's just awful" and "I don't want to go back there" and you then have to take on board they'd had a rubbish day but know in the back of your mind you're still gonna have to redeploy them again […] it does make you feel awful knowing that in the back of my mind next Tuesday I'm going to send you again, that's the only thing 'cause I can't not send anybody and of course then it has a detrimental effect on the staff as well because if they come back, having had a really bad shift on one ward, they'll come back and tell their friends and their colleagues, that was awful, and of course they're not going to want to go either, and so we spent a lot of time trying, you know, firefighting in that respect.'* (L2) *'The number of moves that people have had to endure, and therefore the different things that they've had to do throughout all of this. You just wonder, you know, how much damage have we done.'* (B6) *'We're all sick of this pandemic, but for us in the health service, we really do live and breathe it 24/7 and I think you know that, you know as much as I know it's been great that other people have had recognition in jobs that wouldn't normally have recognition, and I think that's been a really good thing that's come out of this pandemic as a society, but I think, and I know like in January, February it's "Oh my God all these hospital staff crying on duty" but that gets forgotten very quickly, but we are still living and breathing through this pandemic and it hasn't ceased for us. This is not over for us. So it's, it is what it is, as they say, but it's difficult.'* (L4) *'The consequences [to redeployment and working through the pandemic], they were really, really upset by that. And they, there's been quite a lot of almost, I don't know whether* PTSD *is too harsh, harder, but I think there is, I think there's people that are really, really upset, I've got 1,2,3 people that are off sick now with work related stress after.'* (O17) *'At first well I think now I'm, I'm still in the space where I am tired with deployment, I don't want to go back to it. Just exhausting and it's been continuous for many, many months and just exhausted, physically exhausted, emotionally exhausted from the demands and then you see people die and it's a tangible, you see it in front of your eyes. It's just emotionally, physically exhausting and, yeah.'* (WP2, 2L1)
Part two analysis	
Journey	*Illustrative quotes*
Journey One: Professional identity and organisational identification intact/ maintained (*n* = 28)	*'Again, appreciate like I have the choice to go and I made those choices and I also have the choice to come back earlier and I chose to stay, but I know like a lot of people didn't have choices. […] at least if people felt that they'd volunteered for it and felt that they'd had a say or had a choice in the matter they probably would have felt better. I think if I'd have been moved with no choice it would have been even harder personally.'* (2L10)

TABLE 9 Themes, journeys and illustrative quotes (*continued*)

Journey Two: Organisational identification undermined (Professional identity maintained) (*n* = 24)	*'I suppose the fact that you know, as- as a nurse, as a professional, I- I played my part, you know and, stepped forward and did what I needed to do, and that makes me feel good about the fact that you know I would be able to, to- to do that. And feel asked- played my part in that sense, it's- it's just sort of overshadowed by the, by how it was done, I think.'* (2B20) *'I would just do it. That's what nurses do, and I guess that's what nurses will always do. That's what I would do, yeah. I'm not sure it would be offered as a choice to be honest. I work for the Trust, I have a specific role within that Trust, but my employment contract says you work for the Trust. Therefore, if there is a need elsewhere in the Trust that's what you do and we're all employed on that basis, so it isn't really a choice, but we just knuckle down and get on with it.'* (2O16) *'I felt like a commodity, just being picked up and plonked. And erm… I didn't feel that I was being treated as an individual and I didn't feel respected. And I knew, you know, I knew we were in an emergency situation and staff had to be placed where they were needed and what have you, but the Trust have very strong principles around valuing staff and respecting staff, and I felt that that they just went out of the window.'* (2O17) *'I think, well it all just gets a bit hazy over time, doesn't it, I don't think it's all quite as fresh in my memory as it was. I don't feel traumatised really by anything that went on. I've tried to look back on it all as just a big learning curve really, it showed me… It taught me a lot about myself, it taught me that I'm quite resilient and I'll just, yeah, I just crack on and get it done really, so I've tried to look back on it in more of a positive way really because it's essentially been 2 years of my life and you don't want it all to be negative.'* (2B57)
Sense-making Journey Three: Demolition of dual identities (*n* = 10)	*'I've never felt more of a number than I felt on that day and I've never felt so disheartened working for the trust as I have felt this past 12 months.'* (2B4) *'I think nursing, it was all I ever wanted to do, and I got into nursing and I could accept that you were busy and short-staffed and people whinging about pay and things like that, I sort of accepted all that, but when you are just, I don't know… well, I was pushed too far, stretched too far, pushed too far and it's put me off nursing really. I'd love to nurse when there's plenty of staff or you've got the time to look after patients. What you think you're going to do as a nurse anyway, when you look after patients, but there's so little patient contact now. So, yeah, nursing, it sounds awful but if someone told me they wanted to be nurse I'd be like I wouldn't advise it anymore or recommend it. It used to be such a good career and seen as a nice route to go down, but no, my opinion of nursing's not very good at the moment.'* (2B56) *'I suppose negative is that I am now [laughs] you know, on the cusp of being burnt out and really struggling, and getting help around that, which is great, but it has, it has almost broken me professionally and has made me erm… very, I don't know, very sad.'* (2L12)

Appendix 4

TABLE 10 Means standard deviations and correlations of WP2 survey outcomes

Variable	Mean	SD	Univ. N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1. Age	40.95	10.67	57																																	
2. Gender	1.92	0.34	59	0.10																																
3. Non-UK-Trained	1.17	0.38	59	−0.34	−0.02																															
4. Band	6.06	0.82	59	0.23	−0.29	−0.20																														
5. GHQ T1	2.31	0.37	59	−0.10	0.30	0.18	−0.09																													
6. GHQ T2	2.41	0.56	54	0.08	0.15	0.20	0.12	0.31																												
7. GHQ T3	2.57	0.50	47	0.01	−0.08	0.04	0.23	0.01	0.75																											
8. Burnout T1	3.16	0.57	59	−0.26	−0.12	0.03	−0.13	−0.37	−0.13	0.12																										
9. Burnout T2	3.17	0.68	54	−0.35	−0.14	0.06	−0.28	−0.33	−0.62	−0.31	0.66																									
10. Burnout T3	3.04	0.81	47	−0.22	0.13	0.06	−0.34	−0.12	−0.46	−0.63	0.52	0.71																								
11. Sleep T1	4.98	1.85	59	−0.25	−0.03	0.03	0.11	0.34	0.19	−0.02	−0.33	−0.30	−0.28																							
12. Sleep T2	5.33	2.11	54	0.08	0.12	−0.07	0.41	0.26	0.44	0.22	−0.30	−0.48	−0.29	0.58																						
13. Sleep T3	5.45	2.11	47	−0.10	−0.09	0.04	0.21	0.22	0.19	0.42	−0.38	−0.42	−0.64	0.41	0.50																					
14. CSE T1	2.84	0.61	59	−0.08	−0.03	−0.04	−0.13	−0.41	−0.31	−0.04	0.34	0.43	0.21	−0.30	−0.36	−0.16																				
15. CSE T2	2.78	0.70	54	−0.17	−0.31	−0.08	0.03	−0.45	−0.60	−0.29	0.39	0.65	0.37	−0.29	−0.46	−0.17	0.72																			
16. CSE T3	2.60	0.74	47	−0.20	−0.04	−0.02	−0.23	−0.16	−0.45	−0.63	0.25	0.46	0.69	0.00	−0.27	−0.41	0.43	0.69																		
17. Resilience T1	3.28	0.70	59	0.13	−0.01	−0.13	0.23	0.16	0.12	0.05	−0.25	−0.25	−0.05	0.34	0.40	0.09	−0.66	−0.40	−0.31																	
18. Resilience T2	3.18	0.71	54	0.19	0.09	−0.23	0.11	0.15	0.43	0.31	−0.17	−0.42	−0.39	0.31	0.27	0.07	−0.51	−0.57	−0.51	0.61																
19. Resilience T3	3.36	0.78	47	0.13	0.20	−0.03	0.15	0.12	0.35	0.40	−0.07	−0.23	−0.31	0.09	0.37	0.18	−0.50	−0.56	−0.57	0.65	0.81															
20. Need for Relatedness T1	3.49	0.70	59	0.02	−0.10	0.00	−0.01	0.23	0.17	−0.02	−0.30	−0.24	−0.10	0.16	0.09	0.03	−0.57	−0.38	−0.27	0.32	0.29	0.21														
21. Need for Relatedness T2	3.43	0.76	54	0.09	0.22	0.10	0.18	0.33	0.48	0.22	−0.26	−0.46	−0.20	0.25	0.37	0.09	−0.45	−0.60	−0.52	0.31	0.36	0.44	0.42													

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Variable	Mean	SD	Univ. N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
22. Need for Relatedness T3	3.65	0.82	47	0.06	−0.04	0.06	0.27	0.25	0.36	0.46	−0.24	−0.32	−0.58	0.08	0.23	0.49	−0.17	−0.22	−0.62	0.13	0.24	0.42	0.26	0.60												
23. Need for Competence T1	3.19	0.76	59	0.03	0.16	0.11	0.08	0.60	0.29	−0.19	−0.52	−0.49	0.00	0.30	0.40	0.13	−0.62	−0.55	−0.04	0.37	0.13	0.15	0.32	0.41	0.05											
24. Need for Competence T2	3.17	0.75	54	0.21	0.23	0.23	0.07	0.40	0.56	0.34	−0.38	−0.57	−0.50	0.28	0.34	0.21	−0.59	−0.75	−0.59	0.24	0.42	0.48	0.23	0.49	0.29	0.50										
25. Need for Competence T3	3.52	0.70	47	0.05	−0.03	0.21	0.11	0.23	0.42	0.52	−0.31	−0.46	−0.64	0.06	0.04	0.26	−0.31	−0.41	−0.67	0.13	0.25	0.34	0.15	0.37	0.49	0.15	0.63									
26. Need for Autonomy T1	3.03	0.63	59	0.12	0.26	−0.02	0.02	0.48	0.34	−0.02	−0.54	−0.56	−0.26	0.33	0.37	0.25	−0.58	−0.59	−0.39	0.35	0.31	0.22	0.47	0.44	0.21	0.46	0.40	0.28								
27. Need for Autonomy T2	3.00	0.82	54	0.17	0.27	−0.03	−0.01	0.31	0.60	0.30	−0.45	−0.71	−0.44	0.27	0.38	0.19	−0.39	−0.69	−0.57	0.17	0.33	0.21	0.34	0.49	0.23	0.31	0.53	0.37	0.66							
28. Need for Autonomy T3	3.23	0.83	47	0.14	0.14	−0.17	0.09	0.18	0.40	0.59	−0.34	−0.50	−0.76	0.15	0.23	0.45	−0.24	−0.46	−0.71	0.10	0.39	0.37	0.14	0.17	0.47	−0.08	0.40	0.65	0.46	0.61						
29. Performance T1	31.23	9.05	58	0.03	0.22	0.18	0.03	0.23	−0.03	0.02	−0.20	−0.11	−0.20	0.01	0.01	−0.03	−0.07	−0.18	−0.17	−0.07	−0.06	0.11	0.02	0.05	0.06	0.22	0.24	0.18	0.13	−0.02	0.15					
30. Performance T2	29.97	10.47	53	0.17	0.17	0.09	0.29	0.05	0.19	0.22	−0.26	−0.40	−0.48	0.04	0.27	0.18	−0.06	−0.17	−0.20	0.01	0.11	0.15	−0.17	0.04	0.12	0.17	0.24	0.30	0.22	0.06	0.29	0.54				
31. Performance T3	31.40	10.36	46	0.01	0.05	0.10	0.13	−0.09	−0.12	0.16	−0.20	−0.09	−0.29	−0.16	−0.02	0.15	0.16	0.04	−0.25	−0.11	0.02	0.14	−0.05	−0.08	0.25	−0.08	0.02	0.15	0.16	−0.12	0.22	0.49	0.75			
32. Turnover Intention T1	3.20	1.47	59	0.07	−0.10	−0.12	−0.03	−0.33	−0.34	−0.39	0.46	0.42	0.44	−0.11	−0.16	−0.37	0.36	0.35	0.45	−0.29	−0.24	−0.31	−0.18	−0.19	−0.33	−0.37	−0.40	−0.53	−0.33	−0.36	−0.34	0.02	−0.18	−0.08		
33. Turnover Intention T2	3.13	1.36	54	−0.05	−0.06	−0.11	−0.31	−0.42	−0.31	−0.27	0.50	0.53	0.56	−0.36	−0.43	−0.48	0.38	0.41	0.40	−0.30	−0.16	−0.29	0.02	−0.17	−0.30	−0.44	−0.53	−0.46	−0.29	−0.29	−0.37	−0.17	−0.22	−0.04	0.56	
34. Turnover Intention T3	3.38	1.48	47	−0.18	−0.14	0.09	−0.27	−0.33	−0.36	−0.36	0.42	0.59	0.68	−0.24	−0.28	−0.37	0.33	0.45	0.49	−0.07	−0.41	−0.30	−0.03	−0.05	−0.26	−0.16	−0.42	−0.44	−0.32	−0.28	−0.54	−0.24	−0.39	−0.09	0.47	0.71

Appendix 5

TABLE 11 Percentages for GHQ, Brief Resilience Scale, Oldenburg Burnout Inventory and turnover intention scales across WP2 time points

Measure		Time point 1		Time point 2		Time point 3	
		N	%	*N*	%	*N*	%
General Health Questionnaire	Total						
	Normal	0	0	0	0	1	2.27
	High	26	44.83	38	76	24	54.55
	Severe	32	55.17	12	24	19	43.18
	Anxiety and depression scale						
	Normal	0	0	0	0	3	6.52
	High	11	19	30	58.82	15	32.61
	Severe	47	81	21	41.18	28	60.87
Brief Resilience Scale	Total						
	Low	17	28.81	18	33.34	15	31.91
	Normal	37	62.71	34	62.96	29	61.70
	High	5	8.47	2	3.70	3	6.38
Oldenburg Burnout Inventory	Total						
	Disengagement scale						
	Exhaustion scale						
	Low	8	13.56	4	7.84	14	31.11
	Medium	26	44.07	30	58.82	14	31.11
	High	25	42.37	17	33.34	17	37.38
Turnover intentions	'I often think about leaving my career'						
	Strongly agree	15	25.42	9	16.67	16	34.04
	Agree	15	25.42	17	31.48	8	17.02
	Neither	6	10.17	9	16.67	8	17.02
	Disagree	13	22.03	10	18.52	8	17.02
	Strongly disagree	10	16.94	9	16.67	7	14.89

This synopsis should be referenced as follows: Hartley H, Dunning A, Murray J, Simms-Ellis R, Unsworth K, Grange K, *et al.* The impact of redeployment during COVID-19 on nurse well-being, performance and retention: a mixed-methods study (REDEPLOY). *Health Soc Care Deliv Res* 2025;**13**(17):1–50. https://doi.org/10.3310/EWPE7103

Appendix 6

TABLE 12 Relationships between demographic variable and outcome measures

Measure	Age *r*, *p*-value	Band *r*, *p*-value	Gender *t*(df), *p*-value	UK-trained *t*(df), *p*-value	Ethnic minorities *t*(df), *p*-value
Mental health and well-being					
GHQ	T_1 r = −0.095, p = 0.482; T_2 r = 0.084, p = 0.560; T_3 r = 0.009, p = 0.955	T_1 r = −0.095, p = 0.519; T_2 r = 0.116, p = 0.411; T_3 r = 0.233, p = 0.128	T_1 t(56) = −2.201, p = 0.032; T_2 t(49) = −1.230, p = 0.224; T_3 t(41) = 0.699, p = 0.489	T_1 t(57) = −1.364, p = 0.178; T_2 t(50) = −1.427, p = 0.160; T_3 t(42) = −0.257, p = 0.799	T_1 t(57) = 0.146, p = 0.884; T_2 t(50) = 0.262, p = 0.795; T_3 t(42) = 0.472, p = 0.639
Brief Resilience Scale	T_1 r = 0.133, p = 0.322; T_2 r = 0.188, p = 0.192; T_3 r = 0.131, p = 0.409	T_1 r = 0.232, p = 0.077; T_2 r = 0.111, p = 0.431; T_3 r = 0.152, p = 0.324	T_1 t(56) = 1.026, p = 0.309; T_2 t(49) = −0.357, p = 0.723; T_3 t(41) = −1.009, p = 0.319	T_1 t(57) = 0.966, p = 0.338; T_2 t(50) = 1.647, p = 0.106; T_3 t(42) = 0.225, p = 0.823	T_1 t(57) = 1.218, p = 0.228; T_2 t(50) = 0.346, p = 0.731; T_3 t(42) = 0.604, p = 0.549
Oldenburg Burnout Inventory	T_1 r = −0.257, p = 0.053; T_2 r = −0.350, p = 0.013; T_3 r = −0.223, p = 0.155	T_1 r = −0.135, p = 0.308; T_2 r = −0.281, p = 0.043; T_3 r = −0.340, p = 0.024	T_1 t(56) = −0.067, p = 0.947; T_2 t(49) = 1.026, p = 0.310; T_3 t(41) = −1.596, p = 0.118	T_1 t(57) = −0.257, p = 0.806; T_2 t(50) = −0.421, p = 0.676; T_3 t(42) = −0.365, p = 0.717	T_1 t(57) = −1.673, p = 0.100; T_2 t(50) = −2.427, p = 0.019; T_3 t(42) = −0.506, p = 0.616
Sleep	T_1 r = −0.095, p = 0.482; T_2 r = 0.084, p = 0.560; T_3 r = 0.009, p = 0.955	T_1 r = 0.114, p = 0.389; T_2 r = 0.415, p = 0.002; T_3 r = 0.211, p = 0.168	T_1 t(56) = 1.044, p = 0.301; T_2 t(49) = −0.553, p = 0.583; T_3 t(41) = 1.382, p = 0.174	T_1 t(57) = −217, p = 0.829; T_2 t(50) = −0.498, p = 0.620; T_3 t(42) = −0.288, p = 0.775	T_1 t(57) = −0.217, p = 0.829; T_2 t(50) = 1.563, p = 0.124; T_3 t(42) = 0.121, p = 0.905
Cognitive resources					
Relatedness need satisfaction	T_1 r = 0.022, p = 0.869; T_2 r = 0.091, p = 0.529; T_3 r = 0.064, p = 0.646	T_1 r = −0.006, p = 0.964; T_2 r =.180, p = 0.202; T_3 r = 0.269, p = 0.078	T_1 t(56) = 1.099, p = 0.276; T_2 t(49) = −1.356, p = 0.181; T_3 t(41) = 0.657, p = 0.515	T_1 t(57) = 0.013, p = 0.990; T_2 t(50) = −0.677, p = 0.502; T_3 t(42) = −0.395, p = 0.695	T_1 t(57) = 1.435, p = 0.157; T_2 t(50) = 1.219, p = 0.229; T_3 t(42) = 0.921, p = 0.362
Competence need satisfaction	T_1 r = 0.031, p = 0.820; T_2 r = 0.211, p = 0.141; T_3 r = 0.053, p = 0.741	T_1 r = 0.078, p = 0.556; T_2 r = 0.073, p = 0.606; T_3 r = 0.115, p = 0.459	T_1 t(56) = −0.880, p = 0.383; T_2 t(49) = −1.298, p = 0.200; T_3 t(41) = 0.616, p = 0.541	T_1 t(57) = −0.803, p = 0.425; T_2 t(50) = −1.701, p = 0.095; T_3 t(42) = −1.390, p = 0.172	T_1 t(57) = 1.409, p = 0.164; T_2 t(50) = −0.321, p = 0.750; T_3 t(42) = −0.426, p = 0.672
Autonomy need satisfaction	T_1 r = 0.118, p = 0.382; T_2 r = 0.171, p = 0.235; T_3 r = 0.142, p = 0.369	T_1 r = 0.021, p = 0.874; T_2 r = −0.009, p = 0.947; T_3 r = 0.089, p = 0.565	T_1 t(56) = −1.338, p = 0.186; T_2 t(49) = −1.918, p = 0.061; T_3 t(41) = −0.456, p = 0.651	T_1 t(57) = 0.177, p = 0.860; T_2 t(50) = 0.212, p = 0.822; T_3 t(42) = 1.099, p = 0.278	T_1 t(57) = 1.377, p = 0.174; T_2 t(50) = 2.502, p = 0.016; T_3 t(42) = 1.287, p = 0.205
CSE	T_1 r = −0.077, p = 0.568; T_2 r = −0.175, p = 0.224; T_3 r = −0.201, p = 0.203	T_1 r = −0.135, p = 0.309; T_2 r = 0.028, p = 0.843; T_3 r = −0.234, p = 0.126	T_1 t(56) = −0.183, p = 0.855; T_2 t(49) = 2.230, p = 0.030; T_3 t(41) = −0.341, p = 0.735	T_1 t(57) = 0.267, p = 0.790; T_2 t(50) = 0.569, p = 0.572; T_3 t(42) = 0.116, p = 0.908	T_1 t(57) = −0.826, p = 0.412; T_2 t(50) = −0.596, p = 0.554; T_3 t(42) = −1.306, p = 0.199
Job performance and turnover intentions					
Employee resilience scale	T_1 r = −0.095, p = 0.482; T_2 r = 0.084, p = 0.560; T_3 r = 0.009, p = 0.955	T_1 r = −0.095, p = 0.519; T_2 r = 0.116, p = 0.411; T_3 r = 0.233, p = 0.128	T_1 t(56) = −2.201, p = 0.032; T_2 t(49) = −1.230, p = 0.224; T_3 t(41) = 0.699, p = 0.489	T_1 t(57) = −1.364, p = 0.178; T_2 t(50) = −1.427, p = 0.160; T_3 t(42) = −0.257, p = 0.799	T_1 t(57) = 0.146, p = 0.884; T_2 t(50) = 0.262, p = 0.795; T_3 t(42) = 0.472, p = 0.639
Nurse performance scale	T_1 r = 0.026, p = 0.846; T_2 r = 0.174, p = 0.231; T_3 r = 0.006, p = 0.970	T_1 r = 0.030, p = 0.822; T_2 r = 0.285, p = 0.042; T_3 r = 0.128, p = 0.415	T_1 t(55) = −1.409, p = 0.164; T_2 t(48) = −0.741, p = 0.462; T_3 t(40) = 0.296, p = 0.769	T_1 t(56) = −1.350, p = 0.182; T_2 t(49) = −0.621, p = 0.538; T_3 t(41) = −0.652, p = 0.518	T_1 t(56) = −0.499, p = 0.620; T_2 t(49) = −0.612, p = 0.543; T_3 t(41) = −0.311, p = 0.757
Turnover intention	T_1 r = 0.003, p = 0.985; T_2 r = −0.177, p = 0.220; T_3 r = −0.066, p = 0.680	T_1 r = −0.206, p = 0.118; T_2 r = −0.154, p = 0.277; T_3 r = −0.305, p = 0.044	T_1 t(56) = −0.050, p = 0.960; T_2 t(49) = 1.789, p = 0.080; T_3 t(41) = 1.168, p = 0.250	T_1 t(57) = 0.017, p = 0.987; T_2 t(50) = −0.081, p = 0.936; T_3 t(42) = −0.962, p = 0.341	T_1 t(57) = −1.166, p = 0.248; T_2 t(50) = 0.040, p = 0.968; T_3 t(42) = −1.826, p = 0.075
Turnover thought	T_1 r = 0.074, p = 0.587; T_2 r = −0.047, p = 0.745; T_3 r = −0.183, p = 0.245	T_1 r = −0.032, p = 0.812; T_2 r = −0.305, p = 0.028; T_3 r = −0.270, p = 0.076	T_1 t(56) = 0.480, p = 0.633; T_2 t(49) = 0.751, p = p = 0.456; T_3 t(41) = 1.335, p = 0.189	T_1 t(57) = 0.951, p = 0.346; T_2 t(50) = 0.804, p = 0.425; T_3 t(42) = −0.612, p = 0.544	T_1 t(57) = −0.461, p = 0.647; T_2 t(50) = −0.021, p = 0.983; T_3 t(42) = −0.318, p = 0.752

Appendix 7

TABLE 13 Multilevel analyses

	Performance unstandardised beta weight (standard error)	Turnover intentions unstandardised beta weight
WITHIN-LEVEL		
Time point	−0.681 (0.544)	0.156 (0.080)*
General Health Questionnaire	4.858 (2.118)**	0.052 (0.242)
Sleep	0.793 (0.328)**	0.003 (0.054)
Oldenburg Burnout Inventory	0.547 (1.109)	0.101 (0.204)
Brief Resilience Scale	0.465 (0.770)	−0.462 (0.167)***
CSEs: competence needs	0.414 (0.797)	−0.074 (0.154)
CSEs: relatedness needs	1.641 (0.895)*	0.014 (0.136)
CSEs: autonomy needs	−4.415 (0.745)****	−0.073 (0.131)
CSEs: core self-esteem	−2.487 (1.249)**	0.104 (0.231)
Covariance: performance		−0.278 (0.200)
BETWEEN-LEVEL		
Age	0.128 (0.138)	0.014 (0.012)
General Heath Questionnaire	1.838 (6.391)	−0.063 (0.559)
Sleep	−2.538 (1.967)	0.143 (0.148)
Oldenburg Burnout Inventory	−2.468 (4.940)	0.718 (0.517)
CSEs: personal resilience	7.729 (7.884)	−0.102 (0.737)
CSEs: competence needs	15.108 (12.472)	0.444 (1.188)
CSEs: relatedness needs	−2.577 (3.930)	0.326 (0.370)
CSEs: autonomy needs	10.163 (8.347)	−0.081 (0.865)
CSEs: core self-esteem	20.167 (17.594)	−0.028 (1.659)
Covariance performance		0.653 (0.653)

*$p < 0.1$, **$p < 0.05$, ***$p < 0.01$, ****$p < 0.001$.

Appendix 8

TABLE 14 Description of factors within WP2 nurse journeys

	Sense-making journeys		
Factors and outcomes	**1. Professional identity and organisational identification maintained**	**2. Organisational identification undermined (professional identity maintained)**	**3. Demolition of dual identities**
Pre-pandemic			
Band	Most Band 6 or above. Status, power and had a broader overview of the situation.	N/A[a]	N/A[a]
Personality	Resilience, assertiveness, stoicism. Able to speak up, made the best of the situation, set boundaries.	Personality: resilience, assertiveness, stoicism. Perception of redeployment as part of 'being a nurse' identity.	N/A[a]

TABLE 14 Description of factors within WP2 nurse journeys (*continued*)

Factors and outcomes	Sense-making journeys		
	1. Professional identity and organisational identification maintained	2. Organisational identification undermined (professional identity maintained)	3. Demolition of dual identities
Role	Pre-pandemic role, that is, nurses receiving redeployed nurses and acting in leadership capacity over them.	N/A[a]	N/A[a]
Skills and competencies	Pre-pandemic skills – Having skills that were required in treating COVID-19, that is, respiratory, critical care skills.	Competence and skills did not translate to redeployed role – poor 'fit'/match. Felt disempowered, lost their 'voice'.	Competence and skills did not translate to redeployed role – poor 'fit'/match. Felt disempowered, like they had no voice. Working outside competencies which led to them feeling deskilled.
Existing redeployment experience	N/A[a]	N/A[a]	Poor experiences with redeployment pre-pandemic contributed to negative attitudes.
During pandemic			
Autonomy	Volunteered/sought own redeployment arrangements.	No choice in redeployment, and perception of lack of fairness/transparency in selection.	No choice in redeployment and perception of lack of fairness/transparency in selection.
Support	Felt supported by their peers, line managers and wider leadership team.	Felt supported by their peers and sometimes line managers.	Felt supported by peers but described an absence of support from anyone above their level in the trust.
Redeployment management and communication	Believed redeployment was managed in the best way possible considering the unprecedented circumstances.	Experienced poor communication, management, lack of preparation, poor visibility of senior leaders.	Experienced poor communication, management, lack of preparation, poor visibility of senior leaders.
Skills	Worked within competencies and skills.	Competence and skills did not translate to redeployed role – poor 'fit'/match. Felt disempowered, lost their 'voice'.	Competence and skills did not translate to redeployed role – poor 'fit'/match. Felt disempowered, like they had no voice. Working outside competencies which led to them feeling deskilled.
Skills value		Felt like their organisation did not value their skills and treated them as a commodity.	Felt like their organisation did not value their skills and treated them as a commodity.
Mental health impacts	Experienced mental health impacts due to COVID context, caring for high acuity rates and exposure to high death rates; these were attributed externally to the pandemic context.	Experienced mental health impacts due to COVID context, caring for high acuity rates and exposure to high death rates.	Experienced mental health impacts due to COVID context, caring for high acuity rates and exposure to high death rates. Struggled emotionally and professionally with the care they were able to deliver. Shift to task-based nursing challenged their values and prevented them from ensuring positive patient experience. Particularly difficult caring for patients dying with absence of families.
Post-pandemic/height of pandemic			
	N/A[a]	Post-pandemic, they returned to demanding workloads, continued ad hoc redeployments and were surrounded by, and experienced themselves, low morale.	Post-pandemic, they returned to demanding workloads, continued ad hoc redeployments and were surrounded by, and experienced themselves, low morale.
	N/A[a]	No opportunity for debrief, or chance to process and make sense of the experience.	No opportunity for debrief, or chance to process and make sense of the experience.

continued

TABLE 14 Description of factors within WP2 nurse journeys (*continued*)

Factors and outcomes	Sense-making journeys		
	1. Professional identity and organisational identification maintained	2. Organisational identification undermined (professional identity maintained)	3. Demolition of dual identities
Perceptions of organisational learning	Felt their organisation learned lessons and became more responsive and adaptive as pandemic continued.	Felt their organisation had not learned and adapted throughout the pandemic. This was evident due to lack of a plan for subsequent waves.	Felt their organisation had not learned and adapted throughout the pandemic. This was evident due to lack of a plan for subsequent waves.
Outcomes	Impact on well-being, attributed externally to COVID-19. Benefits experienced (work progression, increased confidence).	Impact on well-being Some benefits experienced (work progression, increased confidence).	Severe impact on well-being, job performance and intentions to leave.

a N/A, Analysis did not reveal this to be a significant part of this journey's sense-making.

Appendix 9

TABLE 15 Means and percentages for GHQ, Brief Resilience Scale, Oldenburg Burnout Inventory and turnover intention scales across time points according to journey

Measure		Journey	Time point 1		Time point 2		Time point 3	
			N	%	*N*	%	*N*	%
GHQ	Total							
	Normal	1	0	0	0	0	0	0
		2	0	0	0	0	1	7.14
		3	0	0	0	0	0	0
	High	1	16	64	20	80	13	59.09
		2	8	33.34	12	70.59	5	35.71
		3	2	20	6	75	2	25
	Severe	1	9	36	5	20	9	40.91
		2	15	62.5	5	29.41	8	57.14
		3	8	80	2	25	6	75
	Anxiety and depression scale							
	Normal	1	0	0	0	0	0	0
		2	0	0	0	0	1	6.67
		3	0	0	0	0	2	22.22
	High	1	6	24	12	48	9	40.9
		2	5	21.74	12	66.67	3	20
		3	0	0	6	75	3	33.33
	Severe	1	19	76	13	52	13	59.1
		2	18	78.26	6	33.33	11	73.33
		3	10	100	2	25	4	44.44

TABLE 15 Means and percentages for GHQ, Brief Resilience Scale, Oldenburg Burnout Inventory and turnover intention scales across time points according to journey (*continued*)

			Time point 1		Time point 2		Time point 3	
Measure		**Journey**	*N*	%	*N*	%	*N*	%
Brief Resilience Scale	Total							
	Low	1	5	18. 52	4	14.81	4	17.39
		2	9	39.13	9	50	7	46.67
		3	3	30	5	55.56	4	44.44
	Normal	1	19	70.37	21	77.78	17	73.91
		2	13	21.74	9	50	7	46.67
		3	5	50	4	44.44	5	55.55
	High	1	2	11.11	2	7.41	2	8.7
		2	1	4.35	0	0	1	6.67
		3	2	20	0	0	0	0
Oldenburg Burnout Inventory	Total							
	Disengagement scale	1						
		2						
		3						
	Exhaustion scale	1						
		2						
		3						
	Low	1	6	23.07	4	14.81	10	43.48
		2	2	8.7	0	0	1	7.69
		3	0	0	0	0	1	14.29
	Medium	1	14	53.85	17	62.97	10	43.48
		2	10	43.48	11	64.71	3	23.08
		3	2	20	2	75	1	14.29
	High	1	6	23.08	6	22.22	3	13.04
		2	11	47.83	5	29.41	9	69.23
		3	8	80	6	25	5	71.43

continued

TABLE 15 Means and percentages for GHQ, Brief Resilience Scale, Oldenburg Burnout Inventory and turnover intention scales across time points according to journey (*continued*)

Measure		Journey	Time point 1		Time point 2		Time point 3	
			N	%	*N*	%	*N*	%
Turnover intentions	'I often think about leaving my career'							
	Strongly agree	1	3	13.64	0	0	2	8.7
		2	8	34.78	5	27.78	8	53.33
		3	4	40	4	44.44	6	66.67
	Agree	1	2	9.09	8	29.63	4	17.39
		2	6	26.09	5	27.78	2	13.33
		3	3	30	4	44.44	2	22.22
	Neither	1	4	18.18	5	18.52	6	20.09
		2	1	4.35	3	16.67	2	13.33
		3	1	10	1	11.11	0	0
	Disagree	1	8	4.55	8	29.63	5	21.74
		2	4	17.39	2	11.11	2	13.33
		3	1	10	0	0	1	11.11
	Strongly disagree	1	5	22.73	6	22.22	6	26.09
		2	4	17.39	3	16.67	1	6.67
		3	1	10	0	0	0	0

Key: 1 = participants categorised within 'journey one' 2 = participants categorised within 'journey two' 3 = participants categorised within 'journey three'.

Appendix 10

Redeploy Stakeholder event summary

Redeployment, well-being and retention of nurses in England

Stakeholder consultation event

Redeploy
Work & nurse wellbeing

Wednesday 18 May 14:00–16:00

Summary pack

Overall summary of the session

- Event introduced by Professor Rebecca Lawton, who is the Principal Investigator on the study.
- Opening remarks by Professor Mark Radford drawing on current work ongoing in this area, and the importance of understanding the experiences of nurses working through the pandemic, redeployment and the impact on nurse well-being, job performance and retention.
- Dr Hannah Hartley and Alice Dunning presented findings from the research project. These first illustrated an overview of the findings and were subsequently presented in four key areas. The key messages in each key area are outlined below:

1. **Nurses not numbers**
   - Nurse managers received directives about the numbers of nurses required on different wards/units and therefore the levels of redeployment. These can be from a trust, wider NHS or government level.
     - For example, nurse managers asked to close wards and move teams or asked

to move a specific number of nurses from one area to another; or even on an individual level, requested to move one nurse.
- The nurse managers then have to enact those decisions and make redeployment happen on the ground, which involves conversations and face-to-face contact with the people they are moving.
- This means nurse managers have to take a person-focused approach and manage the decisions with the people it is affecting, that is, the nurses they are asking to redeploy.
- Nurse managers felt pressure from above in achieving the staffing directives they were trying to meet through redeploying nurses, whil also witnessing the damage to nurse well-being and the teams their decisions were having. Nurse managers were acting as a buffer between higher management and their nurses.
- This meant they felt trapped in the middle and on their own in managing redeployment.
- This had an impact on nurse manager well-being including internalising decisions, feelings of guilt and worry about the ramifications of those decisions, and taking or considering early retirement in order to avoid having to redeploy nurses in the future again.
    - During the course of the pandemic, it became harder to redeploy nurses without conflict, as more nurses were pushing back due to their changing attitudes towards redeployment, based on (predominantly negative) experiences of redeployment.

2. **Supporting nurse managers**
    - There was little guidance on how to enact redeployment which led nurse managers to feeling 'on their own' and unsupported in making and justifying decisions.
    - Limited well-being support in living with the decisions made and the impact of those decisions.
    - Nurse managers took different approaches to redeploying nurses due to a lack of procedural guidance (e.g. identifying nurses; communicating redeployment; managing pushback) which led to inconsistent and non-systematic approaches.
    - There was no guidance in place for de-deploying nurses, for example, when it was appropriate to; who should initiate/lead that process; how to identify which nurses to de-deploy.
    - There was no support for rebuilding and reintegrating teams when de-deployed to their home teams, which has had a long-lasting detrimental effect on the team dynamics – resentment and in-fighting. To mediate this, some nurse managers attempted to rebuild teams through encouraging leave or supernumerary time with returning nurses.

3. **Nurses' experiences of redeployment and working in a redeployed role**
    - Nurses who experienced autonomy, that is, volunteered or had choice over location/length over their redeployment perceived their redeployment in a more positive light.
    - It is really important that there is clarity in roles and responsibilities for redeployed nurses and those nurses receiving them. In addition, where redeployed nurses were expected to work outside their competencies their perception of redeployment and impact upon their mental health was profoundly worse.
    - Nurses who worked in units that received redeployed nurses experienced specific challenges for leading teams of redeployed nurses.
    - The initial welcome was also really important for nurses' perception of experience; it was rare for nurses to experience a proper orientation or induction to the new ward/unit. Where nurses did receive an induction to the ward this relieved some initial anxiety over redeployment and ensured that they felt welcomed by the team.
    - The majority of nurses viewed their supportive experiences with their new team as the main or only benefit to redeployment. There were experiences of conflict with new teams which contributed to mental health and future redeployment perspectives.

4. **Recovery of the workforce to support future redeployment**
    - There are long-term mental health and patient safety impacts because of redeployment, such as burnout, psychological distress, PTSD and insomnia. For some nurses

there were some benefits to mental health and career progression.
  - We know that the experiences of redeployment during the pandemic have shaped, predominantly negative, attitudes towards future redeployment, including outside of a pandemic setting.
  - The task-based nursing focus during the pandemic prevented nurses from delivering the care they wanted to deliver. This impacted on nurse mental health and well-being and is now preventing nurses from providing the best care possible, for example, a lack of empathy or loss of patience with patients.
  - Redeployment is likely to continue due to the staffing levels and the strive for a flexible workforce.
- After presentation of the study findings, all attendees were allocated to one of four breakout rooms; these were based on the key areas of the findings outlined above. The key discussion points from each group are outlined below:

Summary from Group 1 discussions: Nurses not numbers

- The study findings were validated by all members of the group, as they resonated with the experience and knowledge of people in the group.
- Similar issues were happening prior to the pandemic, for example, early career staff being redeployed to meet safety requirements. Redeployment is still ongoing because of recovery and staff shortages, and likely to continue in growing a flexible workforce.
- Planned and occasional redeployment is often better received than unplanned, reactive and perpetual.
- There is a need to develop a formalised planned approach to future redeployment, which can be scaled up in future crisis settings, possibly taking a systems approach. However, recommendations should be based on culture and infrastructure for redeployment in general, rather than just in a crisis setting.
- Nurse managers would benefit from guidance and toolkits on how to 'do' redeployment. Any resources like this should be framed in an 'appreciative' or positive way, for example, what is good practice and how to achieve it, rather than the negatives.
- Lack of autonomy, job control, a voice and influence over decisions are extremely important. Work needs to be done to empower nurse managers in making and enacting decisions, which a toolkit could help.
- Trust has been lost between staff and managers as a result of how redeployment was handled and the experiences nurses have had due to redeployment. There is a need to develop a fundamental shared understanding of the decisions made at different points of the chain of command and how and why those decisions are made – through transparency.
- Suggestions of utilising a shared professional decision-making approach (an evidence-based model) could support transparency between top-level managers, nurse managers (mid-level) and nurses across the whole redeployment process. This could support fundamental understanding of how and why redeployment is done, which could rebuild trust between nurses and managers. Shared professional decision-making is in its infancy and is being adopted by some trusts.

Summary from Group 2 discussions: Supporting nurse managers

- Preparedness is key. Staff will behave differently in a crisis compared to standard redeployment. Considerations towards pandemic versus endemic recommendations.
- Communication including 'thank yous', appreciation and recognition of stress from top-level management important to supporting a more positive view of redeployment and nurse managers. Recognition and appreciation need to be meaningful.
- The full landscape of nursing regulators needs to be mobilised to support changes and dissemination. Nurses/nurse managers experience high accountability but low control. Bodies such as RCN, NMC, CQC and NHS Confederation should be involved and reinforce shared accountability across management levels. A systems-level approach is required. Could tap into RCN management and leadership forum for senior leaders.
- Training is needed for managers, possibly including a code of conduct for managers. This includes redeployment procedures and also leadership skills, for example, humanistic leadership to create restorative and supportive environment.
- Students were also relied on a lot in the pandemic. Suggestions for reframing student education were discussed.

Summary from Group 3 discussions: Supporting nurses in redeployed role

- Redeployment is an endemic issue and was a problem prior to the pandemic. There is a need for organisations to have a cultural awareness and understand areas that individuals do not want to be redeployed to, that is, improve the working culture in areas that

nurses do not want to be redeployed to/learn from areas nurses would rather be redeployed to.
- There is an importance of acknowledging what has happened during the pandemic to nurses, in order to learn from the experiences. There is a need for learning and experiences to be shared interprofessionally for team cohesion.
- Redeployment triggered issues for safety in terms of psychological safety. Nurses now looking for psychologically 'safe' environments after feeling 'unsafe' through pandemic.
- Redeployment was done out of necessity, and without this the scale of harm to patients would have been profound.
- There was a suggestion to separate redeployment into three different categories: planned, unplanned and crisis.
- There were issues in terms of capabilities and expectations being separate – how can we differentiate between knowledge/capabilities and skills/confidence within redeployment.
- There is a need to learn from the nurses who flourished within redeployment and understand what makes them resilient workers.
- There are leadership challenges for matrons to ensure that the complexity taken into account when decisions are made is communicated transparently to nurses/reflect the nuances and experience of nurses on the front line.
- Small things are important for supporting positive redeployment: ensuring there is an orientation/induction or crib sheet with information, for example, location of toilets.
- During redeployment the 'good bits' from nursing were lost, for example, box of chocolates from relatives, the 'joy' of nursing – there is a need to look at how to ensure that the positive aspects from the emotional labour of nursing are not lost.

Summary from Group 4 discussions: Supporting the recovery of the workforce

- Suggestion of a handbook of 'good redeployment practice'. This should support autonomy. Suggestions to explore whether existing toolkits, for example for recruitment of international staff, could be drawn on. This could be at two levels: high policy level, for example, a framework and a 'how to' which includes principles to consider on the ground.
- Learning around the stepping down of services in the pandemic was discussed, particularly around the rationale for closing services.
- Nurses' experiences of the trauma are normal, and we should be careful about pathologising and overuse of terms such as PTSD. There were suggestions around creating cultures and conditions which support post-traumatic growth.
- In response to nurse experiences throughout the pandemic, initiatives have been put in place to support nurses, such as PNAs – supporting restorative clinical supervision, skills, confidence and empowerment building. It is clear there is ongoing work in this area addressing the recovery of the workforce that the research team will look to engage with.
- It is important to ensure nurses feel that their voices were heard – during the pandemic, nurses felt that they didn't have a voice and regressed decades, for example, with doctors being the directors and centre of everything. Supporting nurses should include giving them a voice through mechanisms such as debrief and reviews after redeployment which validate their feelings using humanistic approaches.
- Psychological preparedness was suggested as being essential for coping with future pandemics/crisis settings.
- Reflections that the different types of 'harm' experienced by staff seemed to be broadly in two groups: (1) unavoidable: nature of COVID, high deaths, having to wear PPE, high demands, fast changes and (2) avoidable: chaos, lack of pre-pandemic preparation, poor treatment (basic needs not being met), poor communication/relationships. Should these be addressed differently?
- Receptivity of the teams that receive and welcome redeployed nurses considered important. Suggestions around preparing teams to receive redeployed staff to facilitate that.
- The importance of nurses being valued, proper remuneration and ensuring safety was raised. Key focus on levels of accountability – what is a reasonable level of accountability for people and what is defined as 'safe'? Identifying this could help deal with fear and anxiety? Suggestion around whether patient feedback could motivate and support staff well-being.

Next steps for recommendation development and plans for future contact

- The discussion generated at this event will be integrated with the findings from the study to develop recommendations relating to future nurse redeployment.
- This approach means that recommendations will be evidence based, as they are grounded in the data from the study and other related research evidence, while

also aligning with the perspectives of key policy, regulatory, education and other stakeholders.

- You may be contacted a total of two more times by the research team.
- The research team will next develop a list of recommendations, outlining any associated actions for the research team and/or the relevant stakeholders the recommendations relate most to.
- Once the recommendations are drafted by the research team they will be circulated with all invited stakeholders for feedback, to aid the refinement process
- Once refined, the recommendations you identify as most relevant to you or your organisation will be shared with you and the most appropriate strategy for dissemination will be agreed
- This research project will end in September 2022. We hope that, after this time, you will support this work by helping to raise awareness of the recommendations. The research team are happy to support you in whatever way we can to ensure these findings and recommendations improve redeployment practices and the experience of nurses being redeployed – please do get in touch with Hannah (researcher on the project) at any point: hannah.hartley@bthft.nhs.uk.