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Delivering Covid-19 research during the UK pandemic: Experiences of a local research taskforce

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Abstract

Aim

During the COVID-19 pandemic in the UK, clinical research nurses had to work in new ways and under significant pressure to generate evidence for the developing health crisis. Research nurse support needs, personal and professional challenges have not been explored. This study addresses that gap, generating learning for continued support and development of the research nurse specialty and its ability to respond to public health priorities.

Design

We employed a qualitative exploratory approach through online open-ended interviews to explore research nurses' experiences of delivering research during the pandemic using principles of Grounded Theory.

Methods

Fifteen research nurses in the local research taskforce were identified through purposive sampling. Qualitative interviews were conducted online between November 2020 and January 2021 and analysed using the principles of constructivist grounded theory.

Results

Three themes of adapting to uncertainty, inclusive leadership and finding validity in the stretch zone were generated in the analysis.

Conclusion

A model of inclusive leadership and support can facilitate high-functioning performance in a research team, supporting a rapid, confident and efficient response to research needs.

Impact

Research nurses, a previously invisible workforce, have proved critical to the pandemic response. This study explores the experiences of a team of redeployed research nurses and develops a theory of their experience as they were undertaking the rapid delivery of urgent public health studies during COVID-19. What was found was a process of adaptation and resilience through collaborative teamwork, a strong sense of purpose, and role validation enabled by an inclusive leadership style. This work will drive future development of a model of research nursing with a focus on collaboration between research and clinical colleagues.

Key words: Clinical research, Nursing, COVID-19 pandemic, Leadership.

Introduction

Clinical research has been a critical part of the UK government’s "contain, delay, research and mitigate" response to the coronavirus pandemic, as laid out in the Coronavirus Action Plan (Department of Health, 2020). Central to the safe recruitment, accurate data collection and care of patients taking part in clinical research is the clinical research workforce. A significant portion

of this workforce comprises clinical research nurses (CRN) and midwives (Jones et al., 2020). From a nursing workforce of more than 660,000, the last estimate of research nurse numbers was approximately 10,000 in 2014 (Royal College of Nursing, 2020). The absence of current and accurate figures, illustrate the invisibility of research nurses in the workforce and supports the claim that they are an often undervalued specialism within the nursing profession (Tinkler et al., 2017). Publication of the long-awaited Clinical Research Nurse Strategy formalized an objective to raise the profile of research nursing and develop capacity in the nursing workforce (National Institute for Health Research, 2019). Transition from expert clinical nurse to a novice research nurse has been described as an intimidating and isolating experience (Stephens-Lloyd, 2004). Duties vary according to the study but include governance, feasibility testing, accurate data collection, supporting patients through the study, detailed reporting and management of study delivery. These skills require a change in focus for a clinical nurse that structured training, positive role models and supportive mentoring can support (Crigger & Godfrey, 2014).

During the COVID-19 pandemic, many active research studies were suspended to focus resources on patient care and urgent public health studies (National Institute for Health Research 2020). As a result, it was necessary for teams to adapt their practice so governance, consent, safety, and data accuracy of these rapidly evolving studies could be achieved within the context of severely ill patients, infection control restrictions and absent family (Iles-Smith et al., 2020). A systematic review of clinical nurses' experiences of providing care to patients during the pandemic raised concerns over the psychological impact of the experience, resulting in burnout and loss from the workforce if appropriate support was not implemented (Fernandez et al., 2020). As the value of an experienced and able Clinical Research Nurse workforce has been demonstrated in the research response during the Covid-19 pandemic, evidence of their experience and support needs is necessary for retention and professional development. This study aimed to explore research nurses' experiences of delivering clinical studies through the taskforce model in a research-intensive University Hospital Trust during the initial phase of the pandemic in the UK (April–June 2020).

Background

COVID-19, a novel coronavirus, emerged as an infectious disease in late 2019. As of April 2021 the COVID-19 pandemic has claimed 2,875,672 lives world-wide (World Health Organization, 2021). It is a global pandemic that became a public health emergency in the UK. By April 2021 it had resulted in 126,921 deaths, within 28 days of a positive test, creating substantial socioeconomic disruption and emotional distress (gov.uk, 2021). The virus is particularly virulent because it is transmitted via close contact with an infected person and exposure to coughing, sneezing, respiratory droplets or aerosols (Shereen, 2020).

At the forefront of the public health response to the pandemic are nurses, the largest healthcare profession worldwide (WHO, 2020). Nurses are an essential component of the crisis response in hospitals as they deliver direct patient care for infected individuals. However, this comes with the increased personal risk of infection and death. In July 2020, a total of 625 health and social care worker deaths across England and Wales had been linked to coronavirus (Office of National Statistics, 2020). Evidence from previous pandemics suggests there are psychosocial effects for nurses leading to burnout and departure from the workforce (Fernandez, 2020). During the SARS (Severe Acute Respiratory Syndrome) outbreak in 2003 the perception of personal danger was exacerbated by uncertainty, known lethality of the virus and intense media coverage (Maunder, 2003). According to Chang et al. (2006), staff turnover of nurses in many countries where outbreaks occurred has been high ever since. A study conducted in the United States following the 2009 Influenza pandemic found the perceived threat to nurses and their families affected the proportion willing to work during pandemic flu (Martin et al, 2013). Nurses who perceive the threat of developing a life-threatening illness is too high may consider leaving their jobs (Chiang et al., 2007; Martin et al., 2013; Shiao et al., 2007). In the UK, an environment where retention of nursing staff is already problematic, it is important to understand the way in which life-threatening stress can affect nurses' capacity to work during a crisis.

For those nurses who stay in clinical practice, there are psychosocial ramifications. There can be a negative psychological impact for nurses who are redeployed to areas outside of their usual scope of practice alongside the ethical and resource issues that emerge during a pandemic (Seale et al., 2009; Johnstone & Turale, 2014). Besides their own professional obligation to patients,

nurses are also concerned about the implications for their personal lives including the risk of being infected, transmission to family members, stigma concerning the risks of their job and restrictions on personal freedom (Chiang et al., 2007; Fernandez, 2020; Seale et al., 2009; Koh et al., 2011). During the pandemic nurses formed an essential part of research teams supporting the development of vaccines and therapeutic research (McCallum et al., 2021). However, little evidence has been gathered of their unique experience to support retention and professional development.

A research 'taskforce', consisting of around 45 research nurses, was assembled for the delivery of urgent public health COVID-19 studies during the pandemic response including the largest COVID-19 randomised controlled trial conducted to date, RECOVERY, consisting of 39,605 participants across 181 sites (Wise & Coombes, 2020; RECOVERY Trial, 2021). The research nurses came from different specialities across the hospital trust including the direct delivery team, gastroenterology, haematology, rheumatology, respiratory medicine, ophthalmology, critical care, emergency care and trauma. The taskforce played a critical role in the delivery of COVID-19 studies to patients infected with COVID-19, during a period where research was at the forefront of the global response to the pandemic.

All research nurses are registered nurses and therefore must follow the nursing regulatory bodies' (Nursing and Midwifery Councils) Code of Conduct and standards relevant to their practice. They do not work in a direct care capacity, but they do work in close contact with patients. The COVID-19 research taskforce worked only with patients infected with COVID-19. They shared the same personal risk as all nurses working in areas caring for patients acutely infected with COVID-19 during the pandemic response. The insights offered from research nurses contribute toward understanding the experience of nurses working with patients infected with COVID-19.

The Study

Aim

This qualitative study aims to explore the experiences of research nurses working in a taskforce model to deliver research to patients acutely infected with COVID-19. To achieve this aim the following four questions were explored:

- Can you tell me how you came to be in the research taskforce?
- What was it like? If you recall, what were you thinking?
- How would you describe your experience of delivering research during the pandemic?
- Is there anything from working during the pandemic that you have taken into your practice now?

Design

We employed a qualitative exploratory approach to research nurse experiences of delivering research during the pandemic, following the principles of Grounded Theory (Charmaz 2014). This approach was chosen as the topic is novel, to inductively generate a theoretical framework of research delivery in the context of a pandemic.

A process of theoretical sampling was followed as a result of the constant comparative analysis of the interview data (Glaser & Strauss, 1968). As the interviews progressed, a more peripheral sample of nurses who delivered Covid studies before the set-up of the Taskforce was accessed to test the explanatory power of the emerging theory (Glaser & Strauss, 1968). Interviewing was stopped at 15 participants as contributions from the new participants did not yield added information suggesting saturation had been achieved. COREQ reporting guidelines were followed (Tong, 2007).

Sampling

Purposive sampling of Taskforce members was initiated by a participation invite circulated to the taskforce team members by the Direct Delivery Team Lead, acting in their capacity as the COVID-19 Taskforce Lead.

Participants were aged between 29 and 59 years with experience as a research nurse ranging from 18 months to 14 years. Participants had been drawn from a variety of research specialities, employed by the health service and university, from within the Taskforce (Direct Delivery team, Infectious Diseases, Emergency Department, Trauma, Critical Care, Ophthalmology, Rheumatology, Respiratory, Gastroenterology and Old Age) (See Table 1).

Data Collection

Data was generated from in-depth interviews and reflective memos (Glaser & Strauss, 1968). In this context, the first authors' experience of working as a research nurse was used to initiate interviewee discussion. An open, iterative approach was taken to interviewing to facilitate participant sharing of what they felt was important rather than being directed by the researcher. The interviews lasted between 12 and 35 minutes and were conducted over a period of 12 weeks. Participants were research nurses who had been responsible for the research recruitment of patients acutely infected with COVID-19 during the pandemic response (March-June 2020). Interviews were recorded, transcribed, and discussed with the second researcher to develop categories.

Ethical Considerations

Ethical approval for the study was given by the Health Research Authority (IRAS No:286946). Transcripts have been de-identified with pseudonyms assigned during transcription. The interviews were conducted remotely via the Microsoft Teams application following research infection control guidelines in place during the pandemic. The principal author worked as a research nurse within the taskforce and it has been acknowledged this may have impacted the data. This has been accounted for with independent coding from the second member of the

research team, outside of the clinical environment, until consensus was reached on final interpretive categories.

Data analysis

A reflexive stance is explicitly recommended by Charmaz (2006, 2014, 2017) and was maintained through in-depth discussions within the research team acknowledging the researcher's position and influence on the research process.

Data collection and analysis were concurrent. The transcribed interviews and reflective memos were coded independently in NVIVO™ (QSR International, Melbourne, Australia) by both members of the team. As the interviews progressed, the interviewer used the results of previous interviews to prompt questions exploring similarities or difference in the participants' experiences. In this way, the reality of delivering research in the Covid-19 taskforce slowly emerged from the content of the interviews. Data was analysed by each researcher and results discussed together, alongside reflexive memos of the team, to reach consensus. This awareness of insider experience encouraged close analysis of the outlying case contributions to the emerging results. Participant sharing of their personal stories, added context and detail to the basic framework of the emerging core categories. This evidence represents an emerging theory for future research to modify and develop (Charmaz 2014).

Rigour

The interviews were conducted online by the principal researcher due to COVID-19 working restrictions. Analysis proceeded simultaneously with data collection as advocated by the grounded theory method, refining both questions and sampling. The first five interview transcripts were coded independently by the research team prior to discussion, agreement on initial coding scheme and sampling direction. Subsequent interviews were conducted with an emerging sense of the theory that allowed testing for variation (Glaser & Strauss, 1968). The final categories were agreed through consensus of the research team.

Findings

Taskforce membership required a high level of commitment, adaptability, and skill acquisition in a changing clinical context of acute disease and anxiety. This experience is presented under the three categories of adapting to uncertainty, inclusive leadership and finding validity in the stretch zone (Table 2).

Adapting to Uncertainty

This theme explores the early days of the response when there was a lot of confusion about what was needed from the research team, where and when. The coordination and planning brought the disparate research teams from across the Trust together and held them on standby until the details were clarified.

As people were moved around in a context of incomplete information, and as priorities were being formulated on the go, there was anxiety among the team:

> *"The first few weeks it was chaos. No-one really knew what they were doing, where they supposed to be, how it was going to work. So, it was really hard to try and get it all set up." Eleanor*

This uncertainty of expectations was emphasised by the uncertainty surrounding the virus:

> *"…there was a huge, huge amount of fear in those early days because no one really knew too much about the virus. We were hearing reports from other countries via colleagues … and there was a lot of rumours flying around in those early days." John*

While most participants had been informed by their manager of the change in arrangement rather than being given a choice to join the taskforce, the reaction was largely positive:

> *"I wanted to do my bit as it were. When the thing kicked off, I was quite willing to get stuck in." Tom*

> *"why else did we do these jobs if it wasn't to step up and do something like this and make a difference?" Sheila*

Once the Taskforce was up and running, a communication structure became clear with daily huddles where updates and planning were shared. The research governance structure and consent and data collection activities offered reassurance in the unsettled working context. This familiarity of the process enabled research nurses to adapt to working conditions in novel clinical areas, with new clinical teams, in differing levels of PPE (Personal Protective Equipment).

> *"Because the actual work itself as a research nurse certainly, wasn't too far off what you're used to doing in studies. You know, you're given … there is a protocol for these things, you run it." Tom*

This adaptation to the changed work context was accelerated by the sense of community within the new Taskforce team.

When the Taskforce disbanded in June 2020, the research nurses returned to their previous areas despite continued recruitment to COVID-19 research studies, this led to a sense of isolation and loss of the support from their Taskforce colleagues. Research nurses who feel distressed when confronted by their own emotional turmoil at seeing patients overwhelmed by their experience of COVID-19 describe feeling alone.

> *"… what I feel from the patients, they feel emotional about the whole thing … and then that makes you feel emotional … and that's the kind of thing that affects you and it's not something you can forget about quickly. You leave the room … get another message saying 'can you go and see this patient?' And you just think, "Can I just think about …?" … But because your team is scattered … they don't know what you're feeling … if they're somewhere else in the building." Robyn*

Inclusive Leadership

This theme considers the experience of the style of leadership on the participants. This includes the use of messaging platforms, role coordination, and a positive communications style by the team leader. However, some members of the Taskforce team experienced some difficulty with the leadership approach within the context of responding in a disaster/pandemic. Leadership of the Taskforce was assumed by a Senior Research Nurse. Taskforce members were recruited from across three hospital sites and brought to one physical location.

The physical proximity, strengthened by the use of a mobile messaging platform for group communications, fostered a clear sense of team identity:

> *"there was a real sense of purpose, we were meeting other colleagues and there was a real sense of unity and togetherness … … and… I hate to use the word Dunkirk spirit, but there was a real sense of sharing and real sense of purpose together." John*

The approach to leadership was considered as coordination, while simultaneously trying to alleviate for the psychological impact on the team:

> *"how do I support this groups of individuals? how do I try to minimise the issues? Uncertainty, fear, resources issues, training issues and how do I do that day to day? Thankfully, everyone that came into the taskforce was really experienced in research." John*

The approach to leadership was experienced by participants as inclusive rather than a hierarchical approach of command and control. The role developed in response to the needs of the team and supported research delivery:

> *"So I would say it became a collective, rather than a hierarchical structure. I would say it was very much a collective of individuals. My role then just changed to basically getting fed back from the team what they needed and trying to make it happen." John*

The shared experience of working in an intense situation, isolated from the non-COVID areas of the hospital and, in many situations, from families and previous colleagues deployed elsewhere or shielding (keeping oneself isolated due to clinical vulnerability of self or close family member) inspired a spirit of camaraderie. This encouraged members to seek support within the team:

> *"So support from the taskforce, so you felt like 'is this person appropriate for this study?' you could talk that through with your colleagues and it would be a non-judgemental answer." Sheila*

In contrast, for one participant working in isolation, there was anxiety. Although the virtual communication via email and mobile messaging platform provided some support.

"I was anxious about working from home and how my laptop would work. There were technology issues that made me feel anxious. That connection to the team wasn't there but it was. It was being part of something but not, it was quite strange." Brenda

The intrinsic support within the Taskforce was emphasised by the members' shared sense of purpose underpinning their practice as they delivered research in real time. It fostered a sense of community that was often missing in the fragmented pre-COVID organisation of the research workforce across the Trust. Belonging to the Taskforce gave some members the confidence to extend beyond their perceived capabilities and approach unfamiliar clinical areas and participants for research delivery. In turn, the successful delivery of research was applauded within the Taskforce and individuals felt a sense of value.

"It's not one single experience, it's the feeling of being in the task force. I felt I joined a little bit late, but that didn't affect the cohesiveness and the team work ethic. To be part of something like that it was exciting, and you feel valued." Nick

While some members found support working within a Taskforce providing them with confidence to communicate with unfamiliar teams and think creatively in their approach to the delivery of research, not all members of the Taskforce felt reassured by the inclusive style of leadership. The uncertainty and disorganisation provoked anxiety for some. This anxiety was expressed as discomfort and lack of clarity in defining tasks and caused some participants to be frustrated:

"But then to have this very different kind of framework was very unsettling in a very unsettled environment, and a bit kind of 'I'm kind of not entirely sure what I'm supposed to be doing' … I was frustrated … 'I want somebody to take control and tell me what they want me to do' and 'I want to plan.'" Bobbi

This anxiety caused an inability to adapt and created a barrier to engagement with the unstructured approach of the Taskforce.

"But I have to say, honestly I felt like a spare part a lot of the time and I felt surplus … I think people … people didn't get involved in the team, said there was nothing for them to do, and they turned up and weren't given things to do. So, I think you had to be quite forceful." Janet

Frustrated by the Taskforce's unstructured organization these members felt uncomfortable:

> *"you know, you retreat back into somewhere that's comfortable and use parameters you know, and that structure was probably already there because we'd been doing studies for a couple of weeks before this taskforce was created." Bobbi*

The inclusive leadership style of the Taskforce that encouraged participation and distributed accountability among its members was uncomfortable for some, and worked to undermine their sense of belonging to the team community. These members contributed fully to the workstream but they felt unable to benefit from the leadership approach that was enabling some of their colleagues to stretch themselves within their roles and develop self-confidence.

Finding validity in the stretch zone

Media coverage highlighted the importance of research to discover treatments for the virus. Some research nurses previously felt isolated from clinical teams pre-COVID, struggled with gatekeepers' understanding of their role, and lacked career progression. For the period of the pandemic response the research profile was raised, and the urgency was understood.

> *"Staff seemed really onboard with the fact we needed to 'science' our way out of this." Tom*

The comprehensive awareness of the research studies across clinical teams meant the usual barriers to research delivery were minimised during the pandemic response. Patients, aware of research from media coverage, were keen to participate and engage with research staff. Taskforce members, accepted onto the ward by clinical staff without resistance, were able to access clinical areas without the need for lengthy explanations of studies. Consequently, research nurses previously considered peripheral by the clinical team, were able to work quickly and with confidence.

The swift delivery of research produced rapid and widely published results. This encouraged the team and sustained enthusiasm for research delivery in the challenging context of the pandemic.

> *"We knew what we were doing would possibly save someone's life next week, and we knew we were changing research forever and we were making real differences." John*

As members grew in confidence, they were encouraged to reconsider their perceived limitations. Members experienced success in the pressurised environment operating inside a stretch zone.

> *"I believe you only gain confidence and grow if you put yourself in challenging positions and because it was a challenging position for everyone … . I believe we all did very well and rose to that challenge." John*

For some members, the positive experience enabled them to think creatively and recognise their capability. Their ambition turned towards roles outside of research nursing.

> *"I realised maybe I've been stagnating a bit, and maybe I needed to do something completely fresh, and getting on the wards. And being in a quite fluid, dynamic environment like that was probably maybe a healthy thing for me career-wise." Tom*

> *It's completely shaped my career path in the fact that I'm choosing to do a Masters now in public health. And this wouldn't have happened if COVID hadn't happened." Nick*

Being part of the Taskforce and its achievements contributed to a sense of value as a research nurse. Motivated members gained confidence as they augmented their research experience. They were encouraged to think creatively and stretch themselves beyond their perceived abilities. Success renewed their interest in research.

> *"I think I was kind of thinking that maybe I'd go back to clinical but actually doing this research, where the study that you started recruiting for, three months later is in NHS care … " June*

Engaging in the Taskforce model of research delivery enabled many participants to accomplish a sense of validity in their professional role that had been lacking prior to the pandemic. (See Figure 1).

Discussion

This exploration of research nurses experience of delivering research during the COVID-19 pandemic has revealed three themes of adapting to uncertainty, inclusive leadership and finding validity in the stretch zone. Inclusive leadership experienced by the participants helped the

research nurses adapt to the uncertainty of the changing situation and fostered resilience by offering a network of support. This support promoted confidence and facilitated creative strategies for working in unfamiliar areas. Sometimes these strategies pushed participants beyond their perceived capabilities and helped them find validation in their role as research nurses.

The participants perceived that the inclusive leadership style adopted by the Lead Research Nurse of the Taskforce enabled them to adapt more quickly to the uncertainty of the crisis. An inclusive leadership style is characterised as democratic, supportive, and welcoming of questions and challenges (Tyler & Lind, 1992; Nembhard & Edmondson, 2006). Within the Taskforce this was delivered through frequent communication within the team; updates, sharing ideas and posing questions during the daily huddle. Inclusive leadership has been shown to mediate the psychological distress experienced by participants in a time of crisis (Ahmed, 2020). This distress described in other studies includes fear of the risk of transmission to family and loved ones, a loss of familiar social support mechanisms (Koh, 2011; Fernandez, 2020), the uncertainty of redeployment (Vindrola-Padros, 2020), and challenges of communicating with patients while wearing PPE (Sturmey & Wiltshire, 2020). This context has been found to significantly contribute to a risk of subsequent burnout (Gemine, 2021).

An inclusive approach by the team leader within the Taskforce inspired mutual trust, respect, and support to facilitate belongingness among the team members as seen in crisis management in other disciplines, e.g., aviation, the military and disaster medicine (Hefitz & Linksy, 2002; Deitchman, 2013; Randel et al., 2018). These positive psychological effects are known to be fundamental to building team resilience in a crisis (Sommer et al., 2016). In contrast, Schulman (1999) reports negative effects of anxiety undermine an individual's resilience. This was seen in the experience of some members of the Taskforce team. Staw et al. (1981) describes how anxiety can lead to a limitation in the information that can or will be received in a crisis. Consequently, these members may be less flexible in their approach to problem solving. This may be linked to a lack of clarity in defining tasks due to the non-hierarchical leadership structure as reflected in the wider literature (Palethorpe & Wilson., 2011).

The sense of community that developed from the uncertain situation of the pandemic among the Taskforce members has been linked with a sense of fulfilment and team resilience (McMillan &

Chavis 1986; Sommer et al., 2016). As evidence from the military suggests, the resilience of the team may be more related to the bonds between team members than the psychological make-up or coping styles of individuals (Greenberg et al., 2015). Thus the collegiality, most likely to occur when nurses believe they participate in work-related decisions (Feiger & Schmitt, 1979) may have provided a refuge from the emotional burden of approaching patients who were acutely ill (Galehdar et al., 2020). Camaraderie in a crisis, where nurses acknowledge the importance of caring for each other and sharing the load, has been recognised in previous pandemic responses (Fernandez et al., 2020).

Where pre-pandemic research nurses are known to have felt isolated and invisible (Hernon, 2020; Maxton et al., 2021; Tinkler et al., 2018), those in the Taskforce experienced a powerful sense of support. Inclusive leadership permitted individuals to think creatively and see innovative solutions to problems, develop self-confidence in their capabilities and stretch themselves within their research roles (Frederickson, 2001). This experience is illustrated in the Comfort, Stretch, Panic model of business management training (Palethorpe & Wilson, 2011). The model is a contemporary adaptation of the Yerkes-Dodson Law hypothesising that an optimal amount of stress promotes performance until arousal surpasses a certain threshold, at which point performance is diminished (Yerkes & Dodson, 1908). The Yerkes-Dodson Law has been criticised for its application in management practices as a method of managing work stress and to enhance employee performance (Corbett, 2015). However, there are areas in learning and development, particularly outdoor education that use challenging situations to encourage deep learning (Mortlock, 1987; Irvine & Wilson, 1994; Priest & Gass, 2005).

The ‘comfort zone’ is a situation where feelings of involvement are minimal, and learning is incidental (Mortlock, 1987). In the ‘comfort zone’ experienced research nurses feel comfortable with their usual environments and tasks of governance, consent, and data collection. Tasks are familiar and lack challenges to stimulate the learning process or reflection. At the other end of the spectrum lies the panic zone where learning is severely impaired. Physiologically, an increase in cortisol production accompanies anxiety and has been shown to impair learning (Grillon et al., 2007; Eysenck, 1979). Those research nurses, unable to function in the panic zone, would remain in their comfort zone.

However, those participants that respond to the challenging situation and achieve deep learning function in a ‘stretch zone’. This is characterised by an ability to negotiate awkward and unfamiliar situations in a challenging context. Within the Taskforce, this was facilitated by support in their role promoting their confidence to explore their perceived boundaries and enhance their capabilities. Some of the research nurses reported the challenging conditions to forge a “peak experience” causing a life-changing effect which had implications for their personal development (Mortlock, 1987).

Limitations

The findings will not be generalisable due to the unique context of the research delivery model and small sample size. This study does not consider the experience of research nurses working in the delivery of vaccine trials, primary care studies, those who were shielding or involved in remote data entry. This study does not explore the experience of clinical nurses during the pandemic response as their role was distinct to that of the research team. Future work could explore the research nurse–clinical nurse relationship during the pandemic as this has been characterized by tension in the past. However, this is the first study to explore the experience of research nurses during the COVID-19 pandemic and propose sustainable system change from the analysis.

Conclusion

This is a novel study of a group of research nurses’ experience of research delivery in a University Hospital Trust during the COVID-19 pandemic’s first wave in the UK Summer of 2020. The urgent situation demanded a crisis management approach in an environment of uncertainty and chaos. It was evident psychological safety engendered by the style of leadership enabled the Taskforce to function effectively. This improved skills, confidence, and engagement with research. The research nurses witnessed the successful implementation of treatments because of their efforts. This contributed to a feeling of pride, a renewed appetite for research and validation in their role as research nurses. Without the usual barriers to patient recruitment, it has been possible to demonstrate the capabilities of an experienced, well-resourced, motivated team of research nurses.

Implications

We have presented components of a rapid research delivery model that can mobilise swiftly and operate at scale in times of need. We found the Taskforce model of research delivery was successful because of its inclusive leadership style. A facilitating environment supported some research nurses to stretch themselves professionally. This research reports the experience of a unique bounded experience. These findings have implications for the future organisation of research nurses. A feature of the contemporary nursing profession is growing expectations of education, experience and competence, with senior nursing roles in the UK typically requiring a Master's level degree or equivalent (Nurses.co.uk., 2021). Career opportunities and leadership models must evolve in parallel to facilitate professional development and support continuously expanding scope of practice. The learning can be taken forward by healthcare organisations, the Clinical Research Network and the Nursing and Midwifery Council as a framework for research nurse development, and a model of swift research delivery in times of need.

Recommendations

A larger study across the country would further inform the learning from the pandemic research response. Based on these findings we recommend an examination of different models of teamwork for research nurses that can translate into a post pandemic workforce. We also recommend reassembling Taskforce members in a symposium for peer support and discussion of how lessons learnt can support future workforce development with the inclusion of clinical colleagues to continue collaborative close working characteristic of the pandemic response success. Finally, to create a First Response Research Team model based on the experience of the Taskforce to share with other Trusts in the UK.

Conflict of Interest statement

No conflict of interest has been declared by the authors.

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Table 1 Participant demographic characteristics (*n* = 15)

Participant number	Gender	Age in years	Period in research nursing
1	Female	52	13 years
2	Female	33	4 years
3	Female	59	14 years
4	Female	43	3 years
5	Female	35	2 years
6	Male	35	4 years 3 months
7	Female	52	6 years 6 months

8	Female	55	2 years 6 months
9	Male	29	18 months
10	Female	30	3 years
11	Female	38	5 years
12	Female	52	12 years
13	Female	52	2 years 9 months
14	Female	15	19 years
15	Male	47	10 years

Table 2 Themes emerging from research nurses' experiences of working in the Taskforce during the COVID-19 health emergency.

Themes	Codes
Adapting to uncertainty	Fear of COVID
	Fear for family
	Feeling apprehensive
	Communication is challenging
	Feeling disconnected
	Feeling disorganised
	Feeling frustrated
Inclusive Leadership	Feeling part of a team
	Making a contribution
	Feeling centre of the action
	Good communication within the team
	"Able to recognise our capabilities"
	Camaraderie
	Good atmosphere
	Feeling looked after/supported
	Exchange of experience
Finding validity in the stretch zone	Research is valuable

	Feeling proud
	A changed perspective
	Feeling supported
	An opportunity to use full skill set
	Feeling confident returning to usual role
	Learning new skills

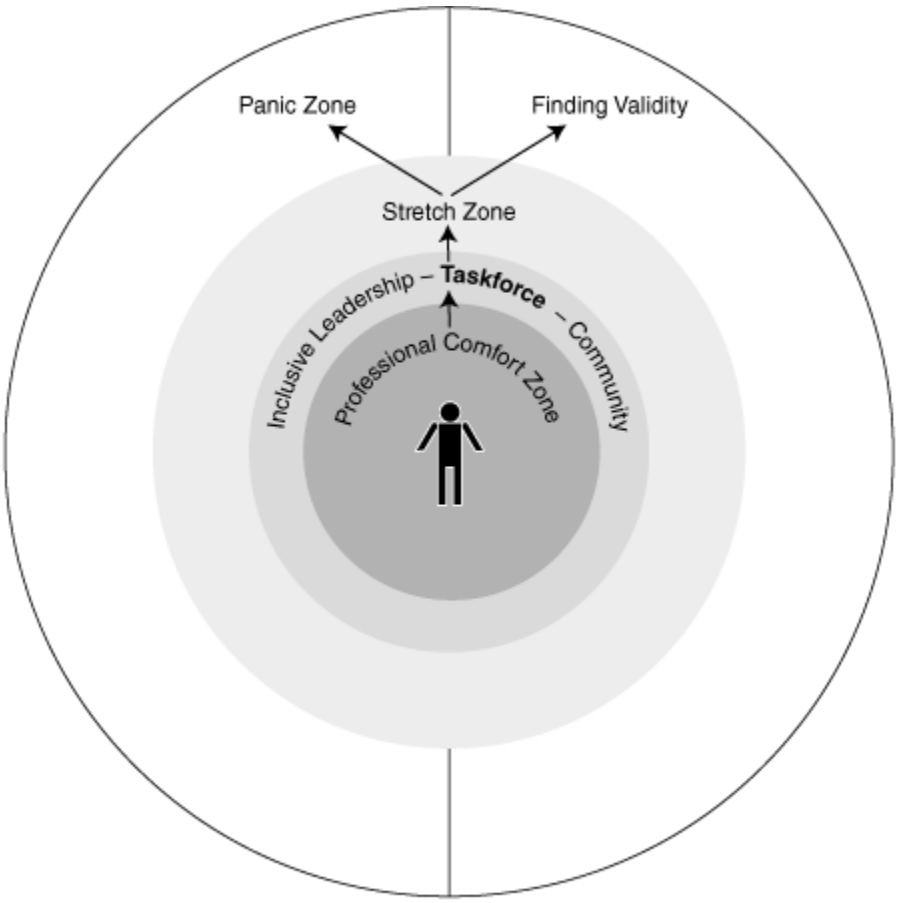

Figure 1. Theoretical framework of research nurses' experiences within a high functioning team