# Resilience During Covid – a Qualitative Study on the Experience of Rural Hospital Healthcare Workers

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**Research Article**

**Keywords:** Resilience, healthcare workers, pandemic, covid-19, challenges, rural hospital

**Posted Date:** March 30th, 2022

**DOI:** https://doi.org/10.21203/rs.3.rs-1355026/v1

# Abstract

AIMS

The purpose and aims of this study were to explore the existing resilience beliefs amongst a range of healthcare staff in a rural Irish hospital during the first wave of the COVID-19 pandemic, and to ascertain whether this cohort developed enhanced resilience following this experience.

METHODS

Qualitative semi-structured interviews were carried out with a cohort of hospital staff who worked on a designated covid ward during the first wave of the Covid-19 pandemic. An interview guide was employed to facilitate consistent and analogous data. An interpretative phenomenological approach was used for data analysis yielding themes and sub-themes.

RESULTS

While participants highlighted a number of personal and professional difficulties, positive experiences were also described, including enhanced team work and inter-professional dynamics. Workers utilised a number of affirmative strategies to foster resilience development, and twelve out of thirteen study participants (92%) acknowledged an overall improvement in their perceived resilience skills following their experiences.

CONCLUSION

This study found that a subset of healthcare workers on the frontline of a rural Irish hospital during the COVID-19 pandemic, from a variety of hospital-based roles, employed similar methods to bolster resilience as individuals. The study highlighted areas of improvement in the workplace which could enhance personal and workplace/hospital resilience, including improved lines of communication, and improved staffing.


# Background

"*All these stories that we haven't been telling all this time, that we haven't been listening to, are just part of what we need to heal. Not that we're broken. And don't make the mistake of calling us resilient. To not have been destroyed, to not have given up, to have survived, is no badge of honor*". -Tommy Orange.[1]

The onset of the global coronavirus pandemic in early 2020 resulted in significant overburdening of international health services. For many healthcare employees, the pandemic presented challenges in the workplace and at home. "The challenge model of resilience" proposes that an adverse event can actually enhance a person's ability to adapt.[2] With this study, we explored the existing resilience beliefs amongst a range of healthcare staff, and whether they developed enhanced resilience following their experiences of working during the first wave of the COVID-19 pandemic.

Resilience reflects an ability to maintain a constant stability while adapting to sources of stress and apparent risk.[3] It is thought to be a dynamic process that can be taught and developed through practice over a lifetime.[4] The provision of adequate resources and workplace support, in addition to having sufficient job control and role clarity, provide staff with the opportunity to flourish in the workplace rather than merely cope and survive daily challenges.[5]

There is an extensive body of literature devoted to resilience amongst medical and nursing staff, but comparatively little focusses on the resilience experiences of other allied healthcare workers. Therefore, there is scant information to guide interventions in the workplace which may foster resilience across the entire hospital workforce during a crisis.

COVID-19 posed a high risk of severe and fatal infections in elderly populations, with rural hospitals at high risk to see a large caseload during the pandemic, despite its rural locale. Further, peripheral hospitals like MUH may have limited space and staff, which presents unique challenges during a pandemic such as COVID 19. Together, these factors may have created a perfect storm of a “stressed environment” for the health care workers in peripheral hospitals across rural Ireland.

Indeed, data collected by Health Protection and Surveillance Centre in Ireland indicate that in the Saolta hospital group, MUH suffered the highest number of nosocomial deaths due to COVID 19, at 45 nosocomial deaths. In contrast, Galway University Hospital (GUH), the Level 3 hospital for the Saolta Hospital Group, suffered 1/5 that number of nosocomial deaths, at 9. Further, MUH suffered the 7th highest number of nosocomial deaths in the Republic of Ireland, despite being a geographically vast, sparsely populated county.[6]

Given these disparities in nosocomial infections and deaths between this peripheral, rural hospital and its associated level 3 hospital, it is likely that the health care workers at rural hospitals like MUH may have had unique experiences to others in Ireland during the first wave of the pandemic, and in following surges. These workers may require a different scope of skills to foster and maintain a resilient approach to the ongoing challenges of delivering health care during the COVID 19 pandemic, and any future pandemics or catastrophic emergency events.

In this study, we recruited a total of thirteen participants made up of physiotherapists, phlebotomists, dieticians, occupational therapists, porters, nurses, doctors and healthcare assistants in a qualitative analysis of their experience during the first wave of COVID-19 in rural Ireland.

# Methods

The purpose and aims of this study were to explore the existing resilience beliefs amongst a range of healthcare staff in a rural Irish hospital during the first wave of the COVID-19 pandemic, and to ascertain whether this cohort developed enhanced resilience following this experience. Qualitative semi-structured interviews were carried out with this cohort of staff who had worked on a designated COVID-19 ward during the pandemic, using the interview guide outlined in Appendix 1. The managers for all hospital

departments were contacted via letter informing them of the research, inviting them to identify individuals among their staff who fulfilled the criteria and were interested in taking part in this project. All participants were guaranteed that participation or not would have no effect on their work in the hospital. All participants were guaranteed confidentiality and written consent was obtained at the start of each interview.

The interview guide provided a clear format for guiding the dialog in the production of reliable and comparable data.[7] A thematic analysis of the independent outlooks was carried out, allowing for a vivid account of the data collected, and permitting excerpts to appear in the final write-up.[8,9] The decision for a qualitative phenomenological approach was considered appropriate for this study as the focus was primarily on gaining insight and understanding,[10] relating to the lived experience of frontline workers enduring a global healthcare crisis.

# Results

Thirteen healthcare workers were interviewed from a wide range of disciplines within the hospital including doctors, nurses, physiotherapists, occupational therapists, dieticians, phlebotomists, healthcare assistants, and porters. None of the participants withdrew consent during the research process.

Three main themes were identified during the interviewing process which were intertwined with the proposed aims of the research study (Fig. 1). The themes and associated subthemes are outlined below (Tables 1–3).

**Table 1: Subthemes and descriptive examples of Theme 1 – Challenges to physical and mental health during a pandemic**

| THEME | SUBTHEMES | DEFINITION OF SUBTHEMES AND DESCRIPTIVE EXAMPLES |
|---|---|---|
| **Challenges to physical and mental health during a pandemic** | Fear of the unknown | Fear of the unknown was an overwhelmingly popular challenge reported by the participants especially during the early few weeks, creating a sense of panic about its' inevitable arrival in this country.<br><br>"*The most stressful aspect was just the unknown. It was hard to know how much things would expand and would we be able to meet the capacity*" (P5).<br><br>"*I suppose originally nobody knew much about the effects of the disease*" (P11). |
| | Staff shortage | With health services regularly coping with staff shortages, COVID-19 depleted this scarce work force further due to illness.<br><br>"*There should have been more staff there to help- I was totally alone*" (P2).<br><br>"*A lot of the times the team members were down because they were out sick because of COVID or just because they had to self-isolate, so it was very stressful*" (P9).<br><br>"*You can't just magic staff out of nowhere especially in the West of Ireland. We had COVID and we didn't have staff… I came into work one morning to hear that 15 nurses were out. How do you run a ward with 15 nurses out*?" (P13). |
| | Becoming infected and infecting others | Being altruistic is a given for healthcare staff, who continued to care for patients despite the danger to their own health and wellbeing. Others worried about the risk of transmitting the virus to their already vulnerable patients.<br><br>"*You're going home, not knowing if you've been with someone that was positive, not knowing if you're bringing it home to your families or not…….you couldn't hug your children…*" (P1).<br><br>"*My biggest fear was what if I get this and what if I give it to my patient. You never want to harm your patient*" (P13). |
| | Lack of guidelines/ resources | The emerging health crisis in the early stages of the pandemic was a rapidly evolving situation with lack of established protocols and slow communication of updates to staff. In addition, PPE became a sacred garment and social distancing limited staff access to the regular hospital facilities.<br><br>"*I robbed scrubs - I took them out of the bin……. I bought my own visor*" (P2).<br><br>"*There was nowhere else to go in the hospital where you could just sit down and relax"* (P9)<br><br>"*People didn't know whether to wear masks, when to wear them, how to wear them, which ones to wear*" (P11) |

**Table 2: Subthemes and descriptive examples of Theme 2 – Resilience strategies**

| THEME | SUBTHEMES | DEFINITION OF SUBTHEMES AND DESCRIPTIVE EXAMPLES |
|---|---|---|
| **Resilience strategies** | Self-care | Participants described a focus on exercise, meditation and healthy eating as some of the self-care methods employed during the pandemic. Many reported increasing their efforts to implement these strategies during working hours.<br><br>"*I loved going for runs and being out in the fresh hair and distracting myself*" (P3)<br><br>"*I started eating better, exercising regularly*" (P4) |
| | Colleague support and teamwork | Support networks are commonly reported as coping strategies for people during adverse events. A common resilience strategy identified by this cohort of participants was the support network they found in the workplace, rather than outside of it.<br><br>"*We just checked each other when we gowned up, things like that, just making sure that none of us picked it up... a moral support for each other*" (P1).<br><br>"*One good thing that came from COVID was it improved teamwork*" (P3)<br><br>"*You could go in and see a patient with the PPE on and end up doing 3–4 nursing jobs as it was all about team work… I did grow closer to a lot of the nurses, HCAs and other members of staff and we came together as a team which helped me a lot*" (P4) |
| | Avoidance of social media and news outlets | The constant, overwhelming and detailed information scattered online and discussed on the radio and TV about the virus was impossible to escape. Many chose to remove those sources of information from their lives when away from the realistic devastation of COVID-19 that they faced first hand during working hours.<br><br>"*I came off social media and found that to be a massive help- to stop the scare mongering*" (P4)<br><br>"*I tuned out when I went home, and that was one of my coping mechanisms… I didn't watch the news. I turned off all social media off my phone…. When I was in my house, COVID would not enter my world*" (P13) |

**Table 3: Subthemes and descriptive examples of Theme 3 – Future recommended interventions to improve staff resilience**

| THEME | SUBTHEMES | DEFINITION OF SUBTHEMES AND DESCRIPTIVE EXAMPLES |
|---|---|---|
| **Interventions to improve resilience** | Investing in staff | Healthcare workers value support and appreciation from their organisation, with many participants feeling this to be inadequate given the unprecedented challenges presented by the onset of the pandemic.<br><br>"*Communicate that we are doing a good job, not that we want a pat on the back but recognition*" (P1)<br><br>"*That management would allow 5 minutes per day for staff to do a bit of mindfulness or to go outside*" (P4)<br><br>"*I think staff is the greatest resource that they have, and I think you have to mind your staff …. A better look at timetables, that people aren't burnt out and have definite days off….* " (P12) |
| | Investing in resources | The afore mentioned loss of hospital facilities is a dilemma that many participants of this study wished to see changed in an effort to improve their working experiences.<br><br>"*I think the main thing is just a place where people can actually go to destress, during their shift…. even in the canteen, you couldn't sit around long because everyone needed to sit down and eat*" (P9) |

# Discussion

Pre-COVID-19, Matheson et al (2016) highlighted factors such as time pressure, information overload, and communication difficulties as negatively impacting the resilience of healthcare professionals.[11] The participants of this study reported a fear of the unknown, unease about becoming infected and infecting others, staff shortages, and a lack of guidelines and resources as novel challenges during the first wave. Many participants described fearfulness when their colleagues became infected, and difficulties with additional workloads, as COVID-19 depleted the healthcare workforce. Staff worried they were placing their own families and patients at risk of COVID-19.

Workers made use of a number of positive strategies to foster personal resilience development during the first surge of the COVID-19 pandemic. Many participants highlighted that exercise, healthy eating, mindfulness, meditation, or yoga were helpful. The literature acknowledges the importance of such measures in preserving the psychological well-being of frontline workers, who are already vulnerable to depression, anxiety, insomnia, and distress.[12] A number of participants preferred to "tune out" when they were at home, avoiding social media and other news outlets discussing COVID-19. This is echoed in the literature. Ni et al (2020) found that spending greater than or equal to 2 hours per day on COVID-19 news on social media platforms was associated with depression and anxiety.[13]

Workplace, or professional, resilience has been shown to have a positive effect on work performance and engagement.[14,15] Overall employee well-being was higher with increased levels of workplace resilience, suggesting an interplay between personal and professional resilience.[16] In our rural hospital, participants identified areas of improvement for the workplace environment which may bolster healthcare worker

resilience. Understaffing was identified as an issue as was lack of recognition from management that they were doing a good job. This is in keeping with work done by Lancee et al (2008), who concluded that workers who feel supported by their organisation have a lower incidence of mental health disorders.[17]

Participants revealed uncertainty due to rapidly changing guidelines. Liu et al concluded that where accurate updates on the pandemic were provided, fewer depressive symptoms were reported.[18] The provision of precise, trust-worthy communication on the evolving pandemic to healthcare workers across multiple different roles may contribute to the well-being of healthcare workers. Participants also mentioned scheduled time off work and fair working hours as important in improving resilience. Another area of concern was the paucity of hospital facilities and places where workers could go to unwind during the working day.

Despite the negative consequences of the COVID-19 pandemic, our cohort described powerful positive experiences. Twelve out of thirteen study participants acknowledged an overall improvement in their perceived resilience skills after working through the surges of the pandemic. A frequent theme noted was an improvement in teamwork. Colleagues from the different disciplines noted that they worked efficiently to handle the acute surges in case numbers, forming improved inter-professional relationships as a result. Stronger relationships among the different cohorts of hospital workers were established. Following the SARS epidemic, Tam et al (2004) found that the majority of their cohort of healthcare workers on the frontline reported a deepening in their personal and professional relationships.[19] Future research may find that these improved inter-professional dynamics may persist in the coming years.

The COVID-19 pandemic presented novel stresses in personal and professional environments. Maunder et al (2004) showed the negative influence of social isolation in a pandemic environment, highlighting the importance of social relationships in maintaining resilience.[20] Given necessary social restrictions during COVID-19, personal resilience strategies that healthcare workers might normally employ may not have been accessible. In addition, the workplace became acutely stressful in new ways. This study examined the resilience strategies employed by a group of healthcare workers on the frontline of a rural hospital during the COVID-19 pandemic, from multiple hospital-based roles. It also identified ways in which the workplace might be altered to bolster professional resilience in workers as this crisis continues, and when new crises present.

Many participants were able to develop healthy practices which fostered improved personal resilience during COVID-19. Of note, positive experiences were described in the workplace. An improved sense of teamwork was described within and across multiple disciplines. Following this cohort of workers over the coming years may indicate if this is a lasting positive workplace outcome of the COVID-19 pandemic.

Multiple areas of potential improvement were identified in the work environment to foster worker resilience. These centred on support from management and more organized communication. Formalized communication structures would allow for uniform distribution of guidelines and protocols. Coordinated

communication structures amongst local, regional and national networks may help minimize confusion between sites and standardize protocols between hospital based settings.

Staff shortages were an area of concern for healthcare workers. Rural hospitals have a smaller pool of staff to draw from for redeployment to clinical areas of need, whereas larger urban hospitals may have research personnel and academic staff to pull from. This lack of a “support pool” likely contributed to the staff shortages experienced, as staff became infected or had to self-isolate due to exposure. Increasing the pool of reserve staff will increase workplace resilience during periods of crisis. Frequent breaks, better working schedules, and more annual leave were discussed by participants. Inadequate facilities for changing and relaxation was mentioned as any existing facilities were minimised due to necessary social distancing measures.

The current pandemic will exert prolonged pressure on healthcare systems globally, as many elective procedures and clinics have been postponed.[21] Given ongoing global disparities in vaccine deployment/uptake, it is possible that emerging variants, which may be vaccine evasive, will be a concern for several years. Following the SARS epidemic, psychological distress persisted in affected healthcare workers for at least 2 years.[22] It is likely that the stresses of COVID-19 on the healthcare systems and workers will continue to compound in the coming years, while workers are still seeking to recuperate from the stress of the first year of the pandemic. The findings in this paper highlight what could be done to improve the workplace environment, in an effort to foster improved resilience in the immediate future of healthcare workers in rural Ireland.

Strengths of this study include the cross section of healthcare professionals that were interviewed, and the rural hospital setting. Study limitations include the small sample size used (n = 13). However, the literature suggests that twelve interviews is sufficient for data saturation when conducting qualitative research.[23] Open-ended questions were used during the interview process, but these cannot completely prevent all biases related to researcher-participant factors. Twelve out of thirteen participants were female, presenting a gender bias. Finally, selection bias may be a concern as the hospital workers eager to discuss their experiences may have had a particularly positive, or particularly negative, perception of their experience during the first wave of infections.

Areas of further investigation include doing a second series of interviews, as the pandemic has been evolving for two years. It would be illuminating to interview the same cohort of study participants to see if their experience of resilience has changed. Interviewing a second cohort of participants may also be enlightening. Ideally, the second cohort would be comprised of a variety of roles across the hospital, as the index cohort was.

We, the authors, declare that there are no conflicts of interest in the completion, writing and submission of this original article.

# Declarations

### Ethics approval and consent to participate

Ethical approval to conduct this research was obtained from the Research Ethics Committee at Mayo University Hospital, Castlebar, Co. Mayo. All participants provided written consent to be interviewed, have this interview recorded and transcribed and for direct anonymous quotations to appear in the final write-up.

### Consent for publication

All participants provided written permission for publication of the research in the knowledge that they would not be identified in any way.

### Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

### Competing Interests

The authors declare that they have no competing interests.

### Funding

The authors did not receive any funding for conducting this research.

### Author Contributions

AMcC acquired, analysed and drafted the data. RAS analysed and drafted the data. LHM drafted the work and substantially revised it. AK designed and drafted the work. All authors read and approved the final manuscript.

### Acknowledgements

Not applicable

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# Figures

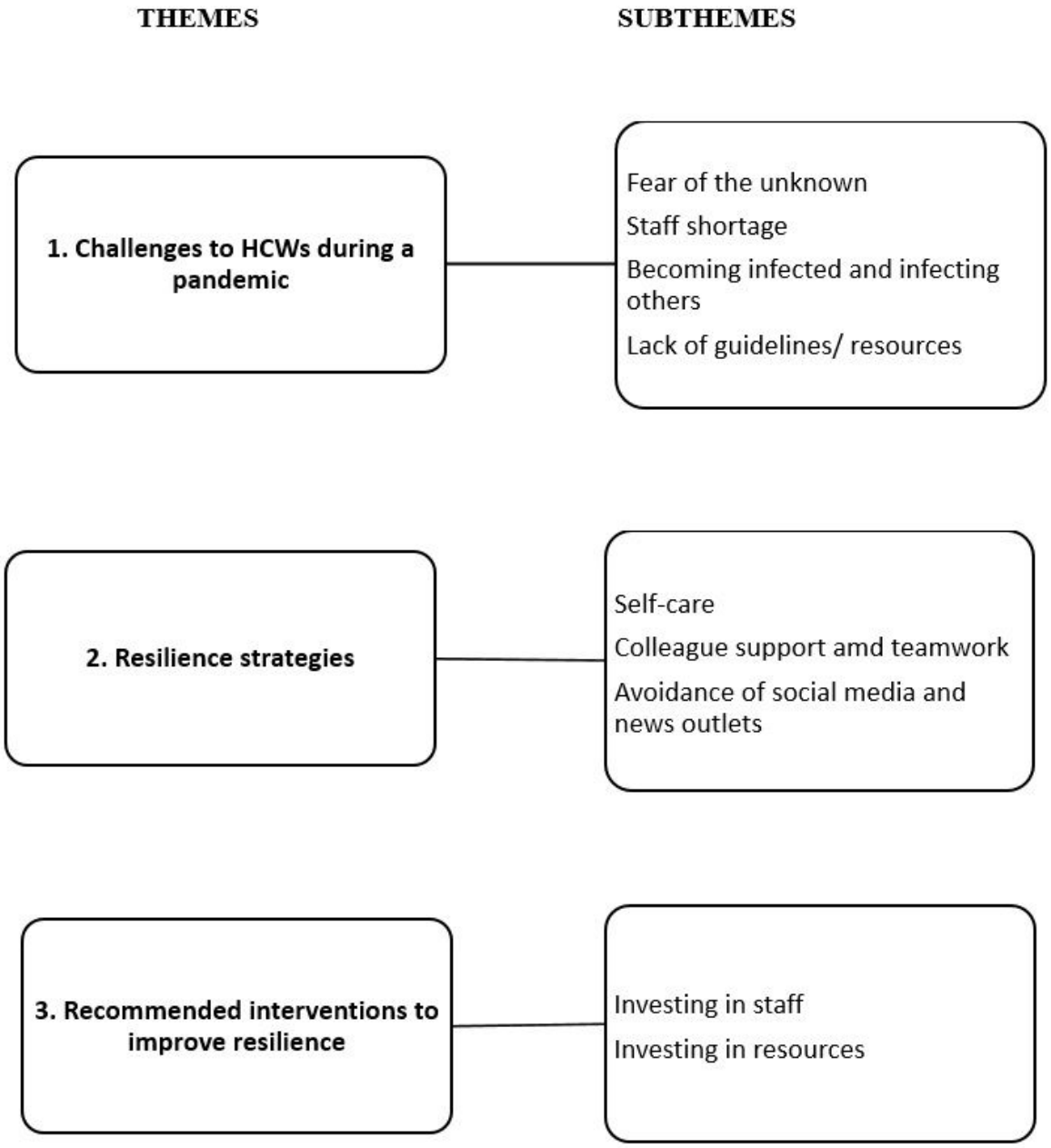


**Figure 1**

**Identification of themes and subthemes**

# Supplementary Files

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- APPENDIX1.docx