BMJ Open is committed to open peer review. As part of this commitment we make the peer review history of every article we publish publicly available.

When an article is published we post the peer reviewers’ comments and the authors’ responses online. We also post the versions of the paper that were used during peer review. These are the versions that the peer review comments apply to.

The versions of the paper that follow are the versions that were submitted during the peer review process. They are not the versions of record or the final published versions. They should not be cited or distributed as the published version of this manuscript.

BMJ Open is an open access journal and the full, final, typeset and author-corrected version of record of the manuscript is available on our site with no access controls, subscription charges or pay-per-view fees (http://bmjopen.bmj.com).

If you have any questions on BMJ Open’s open peer review process please email info.bmjopen@bmj.com
# COVID CONFESSIONS: healthcare professional stories from the frontline

<table>
<thead>
<tr>
<th>Journal:</th>
<th>BMJ Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuscript ID</td>
<td>bmjopen-2020-043949</td>
</tr>
<tr>
<td>Article Type:</td>
<td>Original research</td>
</tr>
<tr>
<td>Date Submitted by the Author:</td>
<td>01-Sep-2020</td>
</tr>
</tbody>
</table>
| Complete List of Authors: | Bennett, Paul; Swansea University, Psychology  
Noble, S; Cardiff University, Marie Curie Research Centre  
Johnston, Steve; Swansea University, Psychology  
Jones, David; Prince Charles Hospital  
Hunter, Rachael; Swansea University, Psychology |
| Keywords: | COVID-19, Human resource management < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, MENTAL HEALTH |
I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd (“BMJ”) its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.

The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge (“APC”) for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.

Other than as permitted in any relevant BMJ Author’s Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.
COVID CONFESSIONS: healthcare professional stories from the frontline

Paul Bennett¹
Simon Noble²
Stephen Johnston³
David Jones⁴
Rachael Hunter⁴

¹ Corresponding author:
Prof. Paul Bennett PhD
Department of Psychology
Swansea University
Singleton Park
Swansea
SA2 8PP
UK
Email: p.d.bennett@swansea.ac.uk

² Marie Curie Research Centre,
Division of Population Medicine,
Cardiff University,
Cardiff,
UK

³ Department of Psychology
Swansea University
Swansea
UK

⁴ Dept Anaesthetics and Critical Care
Prince Charles Hospital
Merthyr Tydfil
UK
Abstract

Objectives: to gain an anonymous insight into the experiences and concerns of front-line health workers while caring for patients with covid-19

Design: A qualitative analysis of data collected through an anonymous repository of uncensored covid-19 experiences of frontline workers, accessed via a link advertised on the twitter feed of two high profile medical tweeters and their re-tweets. All NHS workers involved in the care of covid-19 patients, however remotely, were invited to take part.

Setting: community of NHS workers who accessed this social media.

Participants: 54 health care workers, including doctors, nurses and physiotherapists, accessed the website and left a ‘story’.

Results: The length of stories ranged from one (expletive) word to 10 minutes of verbal storytelling. Thematic analysis identified a number of common themes across the stories, with a central underpinning aspect being the experience and psychological consequence of trauma. Specific themes were: (i) the shock of the virus, (ii) staff sacrifice and dedication, (iii) collateral damage ranging from personal health concerns to the long-term impact on, and care of, discharged patients, and (iv) a hierarchy of power and inequality within the health care system, and beyond.

Conclusions: Covidconfidential gave an outlet for unprompted and uncensored stories of health care workers in the context of covid-19. While stories of trauma may be expected, stories reflecting perceptions of poor management, inequalities of power between management and front-line workers, across professions, and across ethnicities identify remediable concerns that need addressing as a matter of urgency.

Article summary

Strengths and limitations of this study

- The covidconfidential website provided a safe context in which participants could offload stories of the care of covid-19 patients with no fear of personal consequences.
- The unprompted nature of the process that the stories they told were those that were most important to them.
- Recruitment via twitter resulted in a biased sample, largely comprising medical personnel and twitter users.
**Funding statement**

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

**Competing interests**

No author has any competing interests in relation to this research.

**Key words**

Covid-19 qualitative health care workers trauma

**Word count**

4112 words

**Introduction**

There are limited qualitative data describing health care professionals’ experiences during the Covid-19 pandemic. One small Chinese study by Liu et al.\(^1\) reported core experiences to include duty of care, exhaustion due to heavy workloads and protective gear, fear of becoming infected and infecting others, feeling powerless to handle patients' conditions, and managing relationships. Social support was vital to managing their emotions. In a larger study of Flemish primary care doctors, Verhoeven et al.\(^2\) found high levels of concern over becoming infected, the emphasis on managing respiratory issues at the cost of non-Covid-19 problems, and the mental health consequences for vulnerable individuals.

Sethi et al.\(^3\)’s study of 290 Pakistani health professionals found unprecedented workload and overstretched health facilities to be the dominant issues. Caring for patients with Covid-19 can be highly traumatic and may trigger significant future problems including post-traumatic stress, depression and health anxiety\(^4\)\(^5\). One way in which military and emergency sectors have responded to working in traumatic environments involves a process known as ‘clinical debriefing’. This is intended to dissipate the immediate stress by talking, thinking, or writing about the experiences\(^6\).

We have previously described a simple online method of facilitating such interactions (covidconfidential), which has proven of modest immediate psychological benefit\(^7\). This was advertised via the social media platform Twitter and encouraged health care workers of all types to engage with a simple procedure in which they recorded their experiences verbally or in written form. Participants were given no explicit instructions on issues to raise or identify; simply to recount their experiences, as a means of offloading any negative emotions they may have been experiencing at the time, in an uncensored form. The primary aim of this project was to offer a simple, accessible method of addressing the trauma of working during the Covid-19 pandemic. However, it also generated an anonymised repository of stories which identify the issues most pertinent to those using it. Through
this methodology, the data generated have a purity that data obtained in formal interviews lack, since much information in this context may be responses to prompts by the interviewer, and while relevant may not be of prime importance to the person being interviewed.

We therefore sought to better understand the self-declared experiences of healthcare workers from the frontline of the Covid-19 pandemic.

Methods

Ethical consent for the study was granted by the ethics committee of the Department of Psychology, Swansea University: approval number 4484. Patients and public were not involved in the design, or conduct, or reporting, or dissemination plans of our research.

Participants

Fifty-four health care workers involved in the care of patients with covid-19 told their story on the study website: covidconfidential.co.uk. Of these, 27 were doctors, 13 nurses, two physiotherapists, one radiographer, one health care assistant, and 10 ‘other’. There were no exclusion criteria.

Data collection

Participants were recruited via Twitter, initially through the tweets of two doctors (intensive care and palliative care consultants) involved in the project with a cumulative following of 38,000 users. Targeted tweets regarding the project were also sent to medical Twitter “influencers”, with requests for retweeting and further dissemination. The tweets invited NHS colleagues to take part in a study in which they could offload their experiences of care of patients with Covid-19 both as a potential means of dealing with stress and as a way of anonymously recording their experiences. Once at the site, potential participants completed a digital consent form after which they completed a minimal demographic questionnaire (work role, gender and age), before recording their story either verbally or in written form using the videoask.com website (accessed via confidconfidential.co.uk) which provided transcripts of verbal stories. There was a 5-minute time limit for recording. Most interactions were complete within this timeframe. One participant repeated this process to record 10 minutes of story. All audio recordings were deleted once transcribed.

Analysis

Transcripts of all audio and written data were analysed using the inductive thematic analysis of Braun and Clarke. In this, transcripts were read repeatedly to ensure accuracy and enable the identification and generation of relevant initial codes and textual units for features and patterns in the data. Extracts and phrases were used to identify potential themes, with relevant data (‘quotes’) gathered within identified themes. Initial analysis was conducted by RH and the data were systematically reviewed by PB and others in the team to ensure that a name, definition, and exhaustive set of data were identified to support each category.

Results

Thematic analysis revealed five themes which appear central to understanding the experiences of these frontline health and social care staff during Covid-19: see Figure 1. Themes are supported by
verbatim quotes which also identify the role of the participant and the line/s at which the quote can be found in the raw data.

Figure 1: The five themes identified

Trauma and PTSD

Participant accounts clearly identified a paradox for many working on the frontline during Covid-19. Their work was both immensely rewarding and profoundly traumatic. However, the costs frequently outweighed the emotional benefits. Many talked about feeling “broken” (Doctor, 197) by what was described as “the horror that is Covid-19” (Nurse, 491). This language of annihilation was used to depict how “we ended up smashing ourselves and our trainees to pieces to get a vaguely safe rota” (Doctor, 322). The working environment was brutal, and staff reported regularly feeling inadequate and overwhelmed: “I felt so inadequate and tried my very best to make sure these poor patients had anticipatory medication. Staff were in tears and I watched a group of cardiology nurses cry as they tried to cope with patients with severe Covid”. (Nurse, 737-737). The impact of working on the frontline in this pandemic was described as “affecting staff mentally, emotionally, psychologically and physically” (Nurse, 303-304). Symptoms of post-traumatic stress were common, with descriptions of intrusive, vivid and traumatic thoughts or memories, as well as emotional numbing:

“I think what I really feel is quite numb” (Nurse, 802)
“I think about it all the time. I think about all those people that died in the beginning alone. And I also really think about the patients that we discharged who are with us for 50 odd days who will never ever get back to what they were like before.” (Physiotherapist, 38-40)

“Nothing will ever prepare a person for having to tell a family their loved ones have died over the phone or standing there holding an ipad as they watch their dad pass away via a video link.” (Nurse 492-493)

Participants also reported a wider impact on their life and relationships whether in the short-term “I’m actually hiding from my family a little bit.” (Nurse, 803); “My partner is now, uh, moved out. So, uh, it’s had a huge impact on my life.” (Doctor, 615-616) or thoughts of the future: “I think I will be reevaluating my career path after this.” (Nurse, 223).

Patient trauma was also highlighted, with devastating descriptions of psychological trauma among surviving ITU patients:

“They don’t sleep. They have nightmares. They think that you know, one man doesn’t sleep because he’s worried that if he goes to sleep he’ll never wake up again. Another man still thinks sometimes that his family are dead or that he, you know, his family sold him to some sort of slave trader, you know, those delirium kind of nightmares just haven’t gone away.” (Physiotherapist, 57-61)

The ‘shock’ of the virus

Frontline medical staff described how they had “never seen so many...so many people who were so sick.” (Physiotherapist, 4-5); “some of the sickest I’ve ever seen.” (Nurse, 467-468). Staff were shocked by the physical and psychological brutality of the virus; separating families in their most desperate hour.

“They were the most sick people I’ve ever seen and there are so many people dying and we weren’t allowing any visitors. The thought of people saying ‘bye to relatives via Skype just absolutely broke me every single day, and I cried and cried and cried about it when I got home.” (Physio, 8-11).

Staff were often shocked by who was vulnerable to the virus. One participant described how “we are getting our eyes opened because this disease does not discriminate.” (Other, 777). Indeed, some were shocked just how many young or middle-aged people were affected: “And young people! Not as the media would portray these elderly vulnerable with underlying medical conditions.” (Doctor, 171-172).
Covid-19 does, however, disproportionately affect older people and this rendered many senior clinicians as highly vulnerable and consequently impacted on workforce availability:

“We were told of course that it should be the most senior person intubating, but also that they were the people probably at highest risk! And so I can see the look almost a fear in the eyes of some of my consulting colleagues.” (Doctor, 182-184)

There was broad agreement that services were “unprepared” for Covid-19, personally and organisationally:

“I certainly wasn’t prepared for the horror that is Covid-19, anyone that says they were is a liar.” (Nurse, 490-491)

“Before the government announced anything we pulled together a team as we realised we could quickly be getting cases but were not prepared for it.” (Nurse, 904-907)

Living and working through this pandemic was described as “a world disaster. Hopefully once in a lifetime experience.” (Doctor, 429), but also a shared experience that patients and frontline staff had faced together:

“I found myself on a night shift on ITU with a gentleman on everything. ‘Kid, you shouldn’t be here, and I shouldn’t be here’. And how weird and strange it was that we were both here!” (Nurse, 807-809)

Staff sacrifice and dedication

The dedication of staff and commitment to fulfil their duty of care was described as “Herculean...the extra work and hours that have been put in to support the NHS.” (Nurse, 930-931). This is in spite of the practical and emotional challenges faced:

“My clinical colleagues have been unbelievable. Adaptable, honest, efficient, true to patient need. Facing fear head on. Maintaining polite lines of conversation despite internally screaming at management types that it’s too little, too late.” (Doctor, 449-451)
"We have bent over backwards to flex towards patient need. At less than 6hr notice not infrequently. Many of us now have Covid but there hasn’t been a shift unfilled. We want to step up to demand, for our patients and organisation. Yet.... HR are demoralising us.” (Doctor, 193-196)

Fears of infection were influenced by experiences of caring for the most unwell patients. People felt that while the risk of infection “was something that was inevitable.” (Doctor, 886). Many were terrified and traumatised:

“If I’m not crying because I’m scared of getting ill or infecting my loved ones, then I’m awake at 3am after hearing families sob their hearts out because they cannot hold their loved ones in their last moments.” (Nurse, 493-496).

Importantly, the unprecedented and unique challenges of Covid-19 meant that new ways of working have to be adopted and standards may be compromised:

“You have to change the way they are nursed, they don’t respond to things in the usual way or within usual time limits. This is hard when you’ve spent years learning now best to do something, it’s like you’re new to ITU again.” (Nurse, 467-470)

“They can’t work within their values. They can’t do the care they want to provide. And I’ve been talking to them [staff] a lot about seeing that feeling as ‘moral injury’ because that’s what they’re experiencing.” (Doctor, 895-897)

At the heart of testimonies, however, were descriptions of patient focussed care with many describing being “proud of myself” (Nurse, 594) and how “my patients are hugely important to me, at these times more than ever. I have a personal responsibility to them” (Doctor, 427-428). This dedication was also seen in the descriptions of “a kind of survivor guilt” (Doctor, 645) when forced into redeployment due to health risks. Herein staff were left feeling “worthless and guilty about not doing my bit for the NHS.” (Doctor, 708).

Collateral damage
Participant accounts were punctuated by regular descriptions of the repercussions, or ‘collateral damage’ of Covid-19. This ranged from the “inevitable” (Doctor, 886) nature of contracting the virus, to inappropriate levels of risk forced upon staff:

“We wanted to make changes but were not heard. We’ve had staff die on our wards. I was reprimanded for wearing gloves and a pathetic ‘pinnie [apron] on the ward before one member of staff member died, because it wasn’t approved policy yet and we would worry patients.” (Doctor, 451-454)

There were frequent concerns relating to marginalised and vulnerable groups, with reports of inadequate risk assessments as well as a description of inappropriate ‘do not resuscitate’ instruction both highlighted:

“The response of my organisation to the employees of BAME origin has left me feeling bitter. In fact; appalled. My colleagues deserve so much more than a prefilled risk assessment, sent awaiting a signature. Surely inviting a person to discuss is the first point of any risk conversation. WHY WOULD THIS EVER BE OVERLOOKED?! We have lost three staff... How many more!” (Doctor, 208-212)

“My work is with people with learning disabilities and I have seen how they have been marginalised even more than they have been prior to the advent of the pandemic. I have been asked on more than one occasion to clarify DNAR status when I believe that this is inappropriate.” (other, 580-583)

Significantly the health repercussions of continued lockdown, as cases of Covid-19 declined, were indicated as being serious and far reaching for people with mental health issues:

“Only two patients on ITU have Covid. The rest are people at deaths door from suicide attempts. All have a history of mental illness, all known to mental health services. All having had a sequential deterioration over the lockdown period with reduction in mental health support services, community projects, peer support, drop ins etc. What I am seeing is the tip of the iceberg: those whose suicide attempts are not successful but bad enough to need ITU. What of all the others who are managed on non-critical care beds? What of those who are
turned around quickly in A and E in order to minimise admissions. We are beginning to get a picture of the knock-on effects of this pandemic.” (Doctor, 134-141)

Some participants felt that responses to Covid-19 and the subsequent reorganisation of services had led to some poor decision-making which was affecting patient care broadly, with “people coming in with very serious problems which were being missed” (Doctor, 500-503). Relatedly, inadequate assessment of risk for patients and their places of discharge was also described, highlighting the context of services already struggling to cope before the pandemic:

Something that usually takes years in the NHS happened over night with not enough realisation at the top of organisations quite what was happening. The government encouraged discharges to care homes with no testing system in place, saying it was low risk (Nurse, 913-918) #

Where's the support going to come from for these people? There are no Community Services! You know, we're discharging people to their homes and there's no physio. There's no OT. There's no carers. There's no psychological support. [...] You know that there was never any of their stuff for people that have had lengthy ITU days before; this is not a new thing but there's just so many of them now (Physiotherapist, 68-73)

It seemed impossible for these concerns to be raised without it being regarded as critical and unhelpful for morale:

“I also think is a problem that people are able to accept that we are providing substandard care to everyone other than those with Covid. It, um I don’t know what the solution is. It’s very hard knowing how to raise this. Not so much a whistleblowing as it was, just a public safety issue. But people are working hard. People are getting tired now and the last thing they need is for people to turn around and say, ‘Oh, by the way, you’re all crap’.” (Doctor, 513-517).

Hierarchy of power and inequality

There was a widely reported disconnect between senior management and frontline staff, with clinicians’ views and requests frequently reported as being disregarded:
"We weren’t prepared. We were not ready. Immediately before the first wave hit our Hospital, we’d been begging Hospital management staff to cancel elective surgery because we started to see cases and we knew what was coming. They ignored our requests.” (Doctor, 158-160)

“I’d like to be able to say, ‘in hindsight, we would have done differently’. The fact is, us clinicians knew all along at the time. And our voices were quashed in a sea of management meetings, who frankly were rearranging deckchairs rather than encouraging us to make the changes we needed to make. Exec. teams must be led by clinicians and supported by managers. Not vice versa. I’m angry because I believe we were not heard.” (Doctor, 455-460)

Participants felt that risk was disproportionately assigned to the frontline and that those who were most vulnerable were not adequately protected:

“I work with others that have a lot to lose. Either from ethnicity, age, comorbidity. And yet they show up day after day. Certain senior colleagues have vanished under one guise or another. What gets my goat is their instructions, advice and criticisms from afar. They are largely white. Sadly, more men than women too.” (Doctor, 412-415)

“Covid-19 has exposed innumerable inequalities. I thought I was aware. I am not. I’m learning that organisations are powerful. How do the BAME frontline workers get heard?!“ (Doctor, 212-213)

“If anything, please can we take from this, that a white middle class manager, working from HOME has absolutely NO PLACE in assigning risk to any front-line staff seeing febrile and sick unscreened patients daily. That has happened to BAME employees in my organisation.” (Doctor, 417-420)

Many participants felt abandoned by their organisation and “poorly supported trainees felt like being left as sacrificial fodder” (Doctor, 722-724). Frequently frustrations and conflict emerged between staff groups, notably where GPs “won’t see anyone but us nurse practitioners are expected to” (Nurse, 126-127).

While some participants did report cohesive and supportive team working and management, the majority described a sense of abandonment by management and described anger that “the government failed us all” (Nurse, 929). This lack of support, combined with high levels of trauma.
created a sense of feeling hopeless and left many staff feeling disillusioned about their career and organisation:

“I’ve never felt more detached from senior management. After this is over, I’m going to seriously reflect on whether I feel this is an organisation I want to work for and with. I’m seeing it in a different light. I no longer think this is for me.” (Doctor, 291-294).

“The “talk” of management has been great, especially as staff died. Their actions however have been pitiful. In fact, insulting to those that have died as both patients and staff. Yet I have very limited faith anyone will personally realise, what they could have done which would have helped (Doctor, 421-424)

There was a sense of staff waiting for government guidance which was “non-existent but then came thick and fast - as soon as you implemented something everything changed again” (Nurse, 913-914) and this fuelled anxieties about best practice. More broadly, staff felt a personal mistrust of government. One particular “flash-point” for these views emerged around publicity regarding a senior government advisor, Dominic Cummings, who apparently broke lockdown rules:

“We want proper credible leadership which listens to experts, values its staff and its population. I don’t think I have ever been so angry with a government as this one over their behaviour over Covid-19” and Cummings in particular (Doctor, 144-146)

“Families were giving up so much! And in fact, this one [paediatric oncology patient] may have limited time left …. Was giving up so much! And this man [Dominic Cummings] is allowed to break rules with impunity and treat the public with such disregard and such contempt that they feel like they can get away with it. Really?! ...um I think the experiences I’ve had the last few weeks have been very, very different to any I’ve had before. And it feels quite personal when Dominic Cummings is being defended on TV by the Prime Minister.” (Doctor, 382-387)

Discussion

To a large extent, the results speak for themselves, and require no embellishment. While the health care workers who told their stories did experience intense positive emotions, caring for Covid-19 patients brought a significant emotional toll and strained relationships between immediate front-line staff, their families, management, and even government. There is a sense that in the beginning of the epidemic staff were driven by adrenalin and optimism, but over time this dissipated to be replaced by
exhaustion, numbness, and dread expectation of a ‘second wave’. The stories reflect not only the personal horror of caring for profoundly ill patients who were not responding to treatment, they also reflect wider societal concerns. In particular, the failure to test older people being discharged to care homes, and the now unfolding evidence of the need to provide long-term care for many people discharged from hospital: a key future challenge for the NHS, particularly at a time when there needs to be ‘catch up’ in the care of other patient groups whose treatment has been delayed as a consequence of Covid-19. Finally, the Dominic Cummings ‘affair’ has been seen as a key turning point in the population response to the epidemic. It resulted a loss of trust in government and reductions in levels of protective behaviour. The anger towards his behaviour and the Government’s response to it was palpable.

The responses to these stories are complex and multi-factorial, not always easy to implement in a rapidly changing context at a local level. But some can be addressed. Clearly, there is a need for staff having proper and effective protection and working rotas that permit time off and rest. However, at a more systemic level, the voices of workers at the front-line need to be heard. There are clear rifts between ‘workers’ and ‘management’, senior and junior colleagues, and those with more or less power within the system. This means that essential clinical expertise in how the organisation should respond to the crises has been lost. While these may not be novel findings in the NHS, they are amplified at a time of crisis, and cannot be ignored. Pathways of communication between each group, and sub-groups within them such as people from BAME backgrounds or those with legitimate personal health concerns, need to be established or re-established and respected.

As with all studies, the data needs to be viewed within the limitations of the study. Firstly, the National Health Service comprises over 1 million staff, including over 112,000 doctors and 310,000 nurses and the data reported purport to represent all views. Secondly, sampling strategy whilst disseminated widely, was initiated through two doctors’ accounts and this may have led to the sample being doctor “top-heavy”. Furthermore, there is likely to be a degree of sampling bias since Twitter use and, in particular, active engagement with Twitter is likely to be restricted to a particular cohort of the healthcare profession. Finally, whilst every effort was made to simplify the “Covidconfidential” website, engagement still required a degree of effort and it is possible that the views expressed represented the more extreme experiences leading to the most motivated participating.

Despite these limitations, there was strong concordance between experiences suggesting these concerns, whilst extreme, are likely to be true and we ignore these reported data at our peril. Behind many well publicised healthcare scandals, opportunities to address serious concerns have been missed by those who have dismissed concerns on the grounds they have been raised by a small number of vocal individuals. It is also important to consider that loyalty and fears of
legal/organisational repercussions may result in understandable silences among many NHS workers. This suppression denies access to honest descriptions from staff from which many important lessons can be learned. This confidential and anonymous method of data collection enable us to bypass that censorship and as such, the data collected here holds valuable information which cannot be ignored.

What is also evident is that workers have been highly traumatised and there a significant proportion of testimonies which included plans or potential plans for leaving the organisation and professions after the pandemic. This reflects not only the extent of trauma but also points to significant concerns for the retention of staff within organisations. Accordingly, health care providers need to consider how to mitigate this impact. Such mitigation needs to start at the workplace. Staff should be confident that their needs are being respected and feel safe within the working environment. In addition, the toll of continuous engagement with Covid-19 may be mitigated by rotating staff in and out of caring for Covid-19 patients where possible, and holidays becoming mandatory. Psychological care should be easily accessible in a timely manner should this be required.

References


Author statement

Bennett: lead author of submitted paper, study design.
Hunter: led analysis, contributed to study design and final submission.
Johnson: website design, set-up, and contributed to final submission
Noble: contributed to study design, analysis and final submission.
Jones: contributed to study design, analysis and final submission.
CONSENT TO PARTICIPATE FORM

COVID CONFIDENTIAL: exploring the psychological benefits of storytelling in the trauma of COVID-19

Before taking part in the study, please read the information below. If you agree to all the statement, please click YES at the end of the form, and this will take you to the study. If you click NO, this will take you out of the study.

- I confirm that I have read and understand the information provided about this study
- I understand that my participation is voluntary and I can withdraw at any time during the study
- I understand the nature of the research and have any questions I have about it have been addressed
- I agree to anonymous audio-recordings of my COVID-story being stored, transcribed, and then destroyed
- I have been informed that the information I provide will be safe-guarded.
- I am happy for the information I provide to be used (anonymously) in academic papers and other formal research outputs.
- I have been given the opportunity to download a permanent version of the study information

If you agree with ALL the above statements, please [click] here to start the study

If you do not agree with all the above statements, please [click] here to leave the study.
**PARTICIPANT INFORMATION SHEET: AT ENTRY TO STUDY**

[Link takes to first page]

**A brief intervention to reduce distress following thrombosis**

We would like to invite you to take part in a study exploring the psychological impact of telling trauma stories being conducted by Prof Paul Bennett, Dr Stephen Johnston and Dr Rachael Hunter from the University of Swansea, Dr David Jones from Cwm Taff Health Board, and Professor Simon Noble from Cardiff University Medical School.

**What is the purpose of the research?**

Living and working with COVID-19 is undoubtedly stressful, and coping with that stress can be difficult. Talking with colleagues, family members or friends may not be possible due to lockdown or not wanting to burden them with the knowledge and experiences you have had. Formal ‘therapy’ may also be unwanted and difficult to access.

We are therefore looking at simple ways to help people cope with any emotional difficulties they may experience at this time. Formal ‘clinical debriefing’ in which people talk with health care professionals about the traumas they face in work presents significant challenges. Who is there to listen? What can you say or disclose – or not disclose?

Nevertheless, there may be advantages in talking about your experiences, in an uncensored and unstructured manner - and in doing so anonymously, at a time when you feel this would be most helpful.

We are exploring whether this is, indeed, the case.

We would like to invite you to take part in a study, in which you securely and anonymously tell your COVID story: your experiences, emotions, concerns, fears, as well as joyous or transforming experiences in the care of people with COVID-19. In doing so, we have two purposes:

1. To identify whether this process provides some form of immediate emotional benefit
2. To develop a bank of the experiences of people at the heart of the COVID crisis, free from censorship and the need for political or social ‘correctness’.

**What happens if I agree to take part?**

If you take part in the study, you will be asked to:

1. answer some simple demographic questions (we appreciate you may not want to answer all or any of these, and this is not a requirement to take part)
2. record your ‘story’ verbally in as unrehearsed and unstructured manner as you want. We encourage you to explore your emotional reaction to events as well as events themselves as far as you feel comfortable, as this may form part of the benefit of this process.
3. Complete a small number of questions relating to your experience of the intervention.

Completion of questions should take less than five minutes. The time you spend telling your story is up to you.

**Are there any risks associated with taking part?**
The research has been approved by the College of Human and Health Sciences Research Ethics Committee, Swansea University. While we hope the process of telling your story will be beneficial, there are risks that this may result in strong emotions and upset. The study is truly anonymous, and we cannot provide individual psychological support to participants. So, please be aware of this before taking part. Links to potential sources of support are available throughout the study, and you can stop your participation at any time you wish.

Now the legal bit....

**Data Protection and Confidentiality**

Your data will be processed in accordance with the Data Protection Act 2018 and the General Data Protection Regulation 2016 (GDPR). All information collected will be kept strictly confidential. Your data will only be viewed by the research team.

All electronic data will be stored as a password-protected computer file on a mainframe computer at Swansea University. All stories will be transcribed, any potentially identifying details (hospital, ward, names of colleagues etc) removed. The audio-recording will then be deleted. Any paper records will be stored in a locked filing cabinet in the chief researcher’s office.

Due to the anonymous data collection process it will not be possible to identify and remove your data at a later date, should you decide to withdraw from the study.

**What will happen to the information I provide?**

An analysis of the information will form part of our report at the end of the study and may be presented to interested parties and published in scientific journals and related media. *Note that all information presented in any reports or publications will be anonymous and unidentifiable.*

**Is participation voluntary and what if I wish to later withdraw?**

Your participation is entirely voluntary. If you choose to withdraw from the study while taking part, you can stop and remove the recording. The anonymous nature of the study will not allow us to remove your data at a later date.

**Data Protection Privacy Notice**

The data controller for this project will be Swansea University. The University Data Protection Officer provides oversight of university activities involving the processing of personal data, and can be contacted at the Vice Chancellors Office. Your personal data will be processed for the purposes outlined in this information section. Standard ethical procedures will require you provide your consent to participate in this study by completing the online consent form that follows this information. The legal basis we will rely on to process your personal data is necessary for the performance of a task carried out in the public interest. This public interest justification is approved by the College of Human and Health Sciences Research Ethics Committee, Swansea University.

**How long will your information be held?**

Data will be preserved and accessible **for a minimum of 20 years after completion of the research.**
What are your rights?

You have a right to access your personal information, to object to the processing of your personal information, to rectify, to erase, to restrict and to port your personal information. Please visit the University Data Protection webpages for further information in relation to your rights.

Any requests or objections should be made in writing to the University Data Protection Officer:

University Compliance Officer (FOI/DP), Vice-Chancellor’s Office, Swansea University, Singleton Park, Swansea, SA2 8PP

Email: dataprotection@swansea.ac.uk

How to make a complaint

If you are unhappy with the way in which your personal data has been processed you may in the first instance contact the University Data Protection Officer using the contact details above.

If you remain dissatisfied, then you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner’s Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF

www.ico.org.uk

What if I have other questions?

If you have further questions about this study, please do not hesitate to contact the lead researcher, Prof Paul Bennett at profpdbennett@gmail.com

Please [click] here to see a consent to participate form.

Please [click] here if you do not want to participate.
**COREQ (COnsolidated criteria for REporting Qualitative research) Checklist**

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain 1: Research team and reflexivity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personal characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interviewer/facilitator</td>
<td>1</td>
<td>Which author/s conducted the interview or focus group?</td>
<td>n/a</td>
</tr>
<tr>
<td>Credentials</td>
<td>2</td>
<td>What were the researcher’s credentials? E.g. PhD, MD</td>
<td>n/a</td>
</tr>
<tr>
<td>Occupation</td>
<td>3</td>
<td>What was their occupation at the time of the study?</td>
<td>n/a</td>
</tr>
<tr>
<td>Gender</td>
<td>4</td>
<td>Was the researcher male or female?</td>
<td>n/a</td>
</tr>
<tr>
<td>Experience and training</td>
<td>5</td>
<td>What experience or training did the researcher have?</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Relationship with participants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship established</td>
<td>6</td>
<td>Was a relationship established prior to study commencement?</td>
<td>n/a</td>
</tr>
<tr>
<td>Participant knowledge of the interviewer</td>
<td>7</td>
<td>What did the participants know about the researcher? e.g. personal goals, reasons for doing the research</td>
<td>n/a</td>
</tr>
<tr>
<td>Interviewer characteristics</td>
<td>8</td>
<td>What characteristics were reported about the interviewer/facilitator? E.g. Bias, assumptions, reasons and interests in the research topic</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Domain 2: Study design</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theoretical framework</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methodological orientation and Theory</td>
<td>9</td>
<td>What methodological orientation was stated to underpin the study? E.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</td>
<td>4</td>
</tr>
<tr>
<td><strong>Participant selection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sampling</td>
<td>10</td>
<td>How were participants selected? E.g. purposive, convenience, consecutive, snowball</td>
<td>4</td>
</tr>
<tr>
<td>Method of approach</td>
<td>11</td>
<td>How were participants approached? E.g. face-to-face, telephone, mail, email</td>
<td>4</td>
</tr>
<tr>
<td>Sample size</td>
<td>12</td>
<td>How many participants were in the study?</td>
<td>4</td>
</tr>
<tr>
<td>Non-participation</td>
<td>13</td>
<td>How many people refused to participate or dropped out? Reasons?</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting of data collection</td>
<td>14</td>
<td>Where was the data collected? E.g. home, clinic, workplace</td>
<td>4</td>
</tr>
<tr>
<td>Presence of non-participants</td>
<td>15</td>
<td>Was anyone else present besides the participants and researchers?</td>
<td>n/a</td>
</tr>
<tr>
<td>Description of sample</td>
<td>16</td>
<td>What are the important characteristics of the sample? E.g. demographic data, date</td>
<td>4</td>
</tr>
<tr>
<td><strong>Data collection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview guide</td>
<td>17</td>
<td>Were questions, prompts, guides provided by the authors? Was it pilot tested?</td>
<td>4</td>
</tr>
<tr>
<td>Repeat interviews</td>
<td>18</td>
<td>Were repeat interviews carried out? If yes, how many?</td>
<td>n/a</td>
</tr>
<tr>
<td>Audio/visual recording</td>
<td>19</td>
<td>Did the research use audio or visual recording to collect the data?</td>
<td>4</td>
</tr>
<tr>
<td>Field notes</td>
<td>20</td>
<td>Were field notes made during and/or after the interview or focus group?</td>
<td>n/a</td>
</tr>
<tr>
<td>Duration</td>
<td>21</td>
<td>What was the duration of the inter views or focus group?</td>
<td>4</td>
</tr>
<tr>
<td>Data saturation</td>
<td>22</td>
<td>Was data saturation discussed?</td>
<td>no</td>
</tr>
<tr>
<td>Transcripts returned</td>
<td>23</td>
<td>Were transcripts returned to participants for comment and/or discussion?</td>
<td>no</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>Domain 3: analysis and findings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of data coders</td>
<td>24</td>
<td>How many data coders coded the data?</td>
<td>4</td>
</tr>
<tr>
<td>Description of the coding tree</td>
<td>25</td>
<td>Did authors provide a description of the coding tree?</td>
<td>4</td>
</tr>
<tr>
<td>Derivation of themes</td>
<td>26</td>
<td>Were themes identified in advance or derived from the data?</td>
<td>4</td>
</tr>
<tr>
<td>Software</td>
<td>27</td>
<td>What software, if applicable, was used to manage the data?</td>
<td>n/a</td>
</tr>
<tr>
<td>Participant checking</td>
<td>28</td>
<td>Did participants provide feedback on the findings?</td>
<td>n/a</td>
</tr>
<tr>
<td>Reporting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quotations presented</td>
<td>29</td>
<td>Were participant quotations presented to illustrate the themes/findings?</td>
<td>5-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Was each quotation identified? e.g. participant number</td>
<td></td>
</tr>
<tr>
<td>Data and findings consistent</td>
<td>30</td>
<td>Was there consistency between the data presented and the findings?</td>
<td>5-12</td>
</tr>
<tr>
<td>Clarity of major themes</td>
<td>31</td>
<td>Were major themes clearly presented in the findings?</td>
<td>5-12</td>
</tr>
<tr>
<td>Clarity of minor themes</td>
<td>32</td>
<td>Is there a description of diverse cases or discussion of minor themes?</td>
<td>no</td>
</tr>
</tbody>
</table>


Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.
COVID CONFESSIONS: a qualitative exploration of health care workers experiences of working with covid-19

<table>
<thead>
<tr>
<th>Journal:</th>
<th>BMJ Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuscript ID</td>
<td>bmjopen-2020-043949.R1</td>
</tr>
<tr>
<td>Article Type:</td>
<td>Original research</td>
</tr>
<tr>
<td>Date Submitted by the Author:</td>
<td>11-Nov-2020</td>
</tr>
<tr>
<td>Complete List of Authors:</td>
<td>Bennett, Paul; Swansea University, Psychology Noble, S; Cardiff University, Marie Curie Research Centre Johnston, Stephen; Swansea University, Psychology Jones, David; Prince Charles Hospital Hunter, Rachael; Swansea University, Psychology</td>
</tr>
<tr>
<td>Primary Subject Heading:</td>
<td>Health services research</td>
</tr>
<tr>
<td>Secondary Subject Heading:</td>
<td>Mental health</td>
</tr>
<tr>
<td>Keywords:</td>
<td>COVID-19, Human resource management &lt; HEALTH SERVICES ADMINISTRATION &amp; MANAGEMENT, MENTAL HEALTH</td>
</tr>
</tbody>
</table>

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml
I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd (“BMJ”) its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.

The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge (“APC”) for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.

Other than as permitted in any relevant BMJ Author’s Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.
COVID CONFESSIONS: a qualitative exploration of health care workers experiences of working with covid-19

Paul Bennett
Simon Noble
Stephen Johnston
David Jones
Rachael Hunter

1 Corresponding author:
Prof. Paul Bennett PhD
Department of Psychology
Swansea University
Singleton Park
Swansea
SA2 8PP
UK
Email: p.d.bennett@swansea.ac.uk

2 Marie Curie Research Centre,
Division of Population Medicine,
Cardiff University,
Cardiff,
UK

3 Department of Psychology
Swansea University
Swansea
UK

4 Dept Anaesthetics and Critical Care
Prince Charles Hospital
Merthyr Tydfil
UK
Abstract

Objectives: to gain insight into the experiences and concerns of front-line national health service (NHS) workers while caring for patients with covid-19

Design: Qualitative analysis of data collected through an anonymous website (www.covidconfidential) provided a repository of uncensored covid-19 experiences of frontline NHS workers, accessed via a link advertised on the twitter feed of two high profile medical tweeters and their re-tweets.

Setting: community of NHS workers who accessed this social media.

Participants: 54 health care workers, including doctors, nurses and physiotherapists, accessed the website and left a ‘story’.

Results: Stories ranged from one word to 10 minutes in length. Thematic analysis identified common themes, with a central aspect being the experience and psychological consequence of trauma. Specific themes were: (i) the shock of the virus, (ii) staff sacrifice and dedication, (iii) collateral damage ranging from personal health concerns to the long-term impact on, and care of, discharged patients, and (iv) a hierarchy of power and inequality within the health care system.

Conclusions: Covidconfidential gave an outlet for unprompted and uncensored stories of health care workers in the context of covid-19. As well as trauma, stories reflecting perceptions of poor management, inequalities of power between management and front-line workers, across professions, and across ethnicities identified concerns that need addressing as a matter of urgency.

Article summary

Strengths and limitations of this study

- The covidconfidential website provided a safe context in which participants could offload stories of the care of covid-19 patients with no fear of personal or professional consequences.
- The unprompted nature of the process ensured that the stories told were most important to participants.
- Recruitment via twitter resulted in a biased sample, largely comprising medical personnel and twitter users.
Funding statement
This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors'

Competing interests
No author has any competing interests in relation to this research.

Key words
Covid-19 qualitative health care workers trauma

Word count
4124 words
Introduction

There are limited qualitative data describing health care professionals’ experiences during the covid-19 pandemic. One small Chinese study by Liu et al. reported core experiences to include duty of care, exhaustion due to heavy workloads and protective gear, fear of becoming infected and infecting others, feeling powerless to handle patients’ conditions, and managing relationships. Social support was vital to managing their emotions. In a larger study of Flemish primary care doctors, Verhoeven et al. found high levels of concern over becoming infected, the emphasis on managing respiratory issues at the cost of non-covid-19 problems, and the mental health consequences for vulnerable individuals. Sethi et al.’s study of 290 Pakistani health professionals found unprecedented workload and overstretched health facilities to be the dominant issues.

The present study provided a simple online resource, advertised through Twitter, for frontline health care professionals to tell their covid-story. The study was partly intended to provide a means of expressing and potentially moderating any distress participants may have experienced in the care of covid-19 patients, but also actively encouraged the expression of more positive experiences. The emotional consequences of this process have been reported elsewhere. Here, we report the stories told by participants.

Methods

Ethical consent for the study was granted by the ethics committee of the Department of Psychology, Swansea University: approval number 4484.

Patient and public involvement

The study did not involve patients. However, participant perspective was provided by co-author Dr David Jones, a consultant in Intensive Care Medicine with a significant Twitter profile. His experiences of covid-19 care and using social media to access healthcare professionals’ views was invaluable in the design, conduct and reporting of this project.

Data collection

Data was collected between 14th March to 30th August 2020, during the first wave of covid-19. Participants were recruited via Twitter, initially through the tweets of two doctors (intensive care and
palliative care consultants) involved in the project who had a cumulative following of 38,000 users. Targeted tweets regarding the project were also sent to medical Twitter “influencers”, with requests for retweeting and further dissemination. The tweets invited NHS colleagues to take part in a study in which they could record their experiences of care of patients with covid-19 both as a potential means of dealing with stress and as a way of anonymously recording their experiences.

At the covidconfidential webpage, participants were invited to ‘securely and anonymously tell your COVID story: your experiences, emotions, concerns, fears, as well as joyous or transforming experiences in the care of people with covid-19’ and informed that their ‘stories’ may be published in anonymous terms. They then completed a digital consent form and minimal demographic questionnaire (work role, gender and age), before recording their story verbally or in written form using the videosask.com website, which provided transcripts of verbal stories. There was a 5-minute time limit for recording. One participant repeated this process to record 10 minutes of story. All audio recordings were deleted once transcribed.

To ensure ethical requirements, the Participant Information Sheet noted that as a consequence of the anonymous nature of the study, we could not identify any people experiencing distress as a consequence of participation or their experiences or refer them to support. In addition, participants were asked to complete a brief measure of immediate emotional change following this process, and these data were monitored at intervals through the study to safeguard against consistent negative effects of the storytelling. No adverse responses were recorded. Finally, potential sources of support were signposted at the end of the study.

Analysis

Transcripts of all audio and written data were analysed using the inductive thematic analysis of Braun and Clarke. In this, transcripts were read repeatedly to ensure accuracy and enable the identification and generation of relevant initial codes and textual units for features and patterns in the data. Extracts and phrases were used to identify potential themes, with relevant data (‘quotes’) gathered within identified themes. Initial analysis was conducted by RH and the data were systematically reviewed by PB and others in the team to ensure that a name, definition, and exhaustive set of data were identified to support each category. Regular reflective discussions were conducted (RH/PB) throughout the study in keeping with best practice qualitative methodology.
Results

Participants

Fifty-four frontline health care workers in the British national health service (NHS) involved in the care of patients with covid-19 told their story on the study website: covidconfidential.co.uk. Of these, 27 were doctors, 13 nurses, two physiotherapists, one radiographer, one health care assistant, and 10 ‘other’ including managers running services for covid-19 patients. Their average age was 43.3 years (range 21-58 years).  Sixteen were male, 34 female, and four reported themselves as ‘other’ or non-binary. In addition, two doctors, one nurse, and one medical student reported having minimal contact with covid-19 patients. Their accounts are not reported here.

Data availability

Raw transcripts of the data analysed in the study are available from the lead author.

Findings

Thematic analysis was primarily conducted by RH and PB, both of whom are now academic psychologists after having worked in the NHS as clinical psychologists earlier in their careers. This revealed five key themes (see Figure 1). Themes are supported by verbatim quotes which also identify the role of the participant and the line/s at which the quote can be found in the raw data.

The experience of trauma

Participant accounts clearly identified a paradox for many working on the frontline during covid-19. Their work was both immensely rewarding and profoundly traumatic. However, the costs frequently outweighed the emotional benefits. Many talked about feeling “broken” (Doctor, 197) by what was described as “the horror that is covid-19” (Nurse, 491). This language was used to depict how “we
ended up smashing ourselves and our trainees to pieces to get a vaguely safe rota” (Doctor, 322). The working environment felt brutal, and staff reported regularly feeling inadequate and overwhelmed:

“I felt so inadequate and tried my very best to make sure these poor patients had anticipatory medication. Staff were in tears and I watched a group of cardiology nurses cry as they tried to cope with patients with severe covid”. (Nurse, 737-737).

The impact of working on the frontline in this pandemic was described as “affecting staff mentally, emotionally, psychologically and physically” (Nurse, 303-304). Trauma-related symptoms were common, with descriptions of intrusive, vivid and traumatic thoughts or memories, as well as emotional numbing:

“I think what I really feel is quite numb” (Nurse, 802)

“I think about it all the time. I think about all those people that died in the beginning alone. And I also really think about the patients that we discharged who are with us for 50 odd days who will never ever get back to what they were like before.” (Physiotherapist, 38-40)

“Nothing will ever prepare a person for having to tell a family their loved ones have died over the phone or standing there holding an ipad as they watch their dad pass away via a video link.” (Nurse 492-493)

Participants also reported a wider impact on their life and relationships whether in the short-term “I’m actually hiding from my family a little bit.” (Nurse, 803); “My partner is now, uh, moved out. So, uh, it’s had a huge impact on my life.” (Doctor, 615-616) or the future: “I think I will be revaluating my career path after this.” (Nurse, 223).

Patient trauma was also highlighted, with devastating descriptions of psychological trauma among surviving Intensive Therapy Unit (ITU) patients:

“They don’t sleep. They have nightmares. They think that you know, one man doesn’t sleep because he’s worried that if he goes to sleep he’ll never wake up again. Another man still thinks sometimes that his family are dead or that he, you know, his family sold him to some sort of slave trader, you know, those delirium kind of nightmares just haven’t gone away.” (Physiotherapist, 57-61)

The ‘shock’ of the virus
Workers described how they had “never seen so many...so many people who were so sick.” (Physiotherapist, 4-5); “some of the sickest I've ever seen.” (Nurse, 467-468). They were shocked by the physical and psychological brutality of the virus; separating families in their most desperate hour:

“They were the most sick people I've ever seen and there are so many people dying and we weren't allowing any visitors. The thought of people saying ‘bye to relatives via Skype just absolutely broke me every single day, and I cried and cried and cried about it when I got home.” (Physio, 8-11).

Staff were often shocked by who was vulnerable to the virus. One participant described how “we are getting our eyes opened because this disease does not discriminate.” (Other, 777). Indeed, some were shocked just how many young or middle-aged people were affected: “And young people! Not as the media would portray these elderly vulnerable with underlying medical conditions.” (Doctor, 171-172). Covid-19 does, however, disproportionately affect older people and this rendered many senior clinicians as highly vulnerable and consequently impacted on workforce availability:

“We were told of course that it should be the most senior person intubating, but also that they were the people probably at highest risk! And so I can see the look almost a fear in the eyes of some of my consulting colleagues.” (Doctor, 182-184)

There was broad agreement that services were “unprepared” for covid-19, personally and organisationally:

“I certainly wasn't prepared for the horror that is covid-19, anyone that says they were is a liar.” (Nurse, 490-491)

“Before the government announced anything, we pulled together a team as we realised we could quickly be getting cases but were not prepared for it.” (Nurse, 904-907)

Living and working through this pandemic was described as “a world disaster. Hopefully once in a lifetime experience.” (Doctor, 429), but also a shared experience that patients and frontline staff had faced together:
“I found myself on a night shift on ITU (intensive therapy unit) with a gentleman on everything. ‘Kid, you shouldn’t be here, and I shouldn’t be here’. And how weird and strange it was that we were both here!” (Nurse, 807-809)

Staff sacrifice and dedication

The dedication of staff and their commitment to fulfil their duty of care was described as “Herculean…the extra work and hours that have been put in to support the NHS.” (Nurse, 930-931). This is in spite of the practical and emotional challenges faced:

“My clinical colleagues have been unbelievable. Adaptable, honest, efficient, true to patient need. Facing fear head on. Maintaining polite lines of conversation despite internally screaming at management types that it’s too little, too late.” (Doctor, 449-451)

“We have bent over backwards to flex towards patient need. At less than 6hr notice not infrequently. Many of us now have covid but there hasn’t been a shift unfilled. We want to step up to demand, for our patients and organisation. Yet…. HR are demoralising us.” (Doctor, 193-196)

Fears of infection were influenced by experiences of caring for the most unwell patients. People described the risk of infection as “as something that was inevitable.” (Doctor, 886) but many were terrified and traumatised:

“If I’m not crying because I’m scared of getting ill or infecting my loved ones, then I’m awake at 3am after hearing families sob their hearts out because they cannot hold their loved ones in their last moments.” (Nurse, 493-496).

Importantly, the unprecedented and unique challenges of covid-19 meant that new ways of working had to be adopted and standards may be compromised:

“You have to change the way they are nursed, they don’t respond to things in the usual way or within usual time limits. This is hard when you’ve spent years learning now best to do something, it’s like you’re new to ITU again.” (Nurse, 467-470)
“They can’t work within their values. They can’t do the care they want to provide. And I’ve been talking to them [staff] a lot about seeing that feeling as ‘moral injury’ because that’s what they’re experiencing.” (Doctor, 895-897)

At the heart of testimonies, however, were descriptions of patient focussed care with many describing being “proud of myself” (Nurse, 594) and how “my patients are hugely important to me, at these times more than ever. I have a personal responsibility to them” (Doctor, 427-428). This dedication was also seen in the descriptions of “a kind of survivor guilt” (Doctor, 645) when forced into redeployment due to health risks. Herein staff were left feeling “worthless and guilty about not doing my bit for the NHS.” (Doctor, 708).

Collateral damage
Participant accounts were punctuated by regular descriptions of the repercussions, or ‘collateral damage’ of covid-19. This ranged from the “inevitable” (Doctor, 886) nature of contracting the virus, to inappropriate levels of risk forced upon staff:

“We wanted to make changes but were not heard. We’ve had staff die on our wards. I was reprimanded for wearing gloves and a pathetic ‘pinnie [apron] on the ward before one member of staff member died, because it wasn’t approved policy yet and we would worry patients.” (Doctor, 451-454)

There were frequent concerns relating to marginalised and vulnerable groups, with reports of inadequate risk assessments as well as a description of inappropriate ‘do not resuscitate’ instruction both highlighted:

“The response of my organisation to the employees of BAME (black, Asian, and minority ethnic) origin has left me feeling bitter. In fact; appalled. My colleagues deserve so much more than a prefilled risk assessment, sent awaiting a signature. Surely inviting a person to discuss is the first point of any risk conversation. WHY WOULD THIS EVER BE OVERLOOKED?! We have lost three staff... How many more!” (Doctor, 208-212)

“My work is with people with learning disabilities and I have seen how they have been marginalised even more than they have been prior to the advent of the pandemic. I have been
asked on more than one occasion to clarify DNAR status when I believe that this is inappropriate.” (other, 580-583)

Significantly the health repercussions of continued lockdown, as cases of covid-19 declined, were indicated as being serious and far reaching for people with mental health issues:

“All two patients on ITU have Covid. The rest are people at deaths door from suicide attempts. All have a history of mental illness, all known to mental health services. All having had a sequential deterioration over the lockdown period with reduction in mental health support services, community projects, peer support, drop ins etc. What I am seeing is the tip of the iceberg: those whose suicide attempts are not successful but bad enough to need ITU. What of all the others who are managed on non-critical care beds? What of those who are turned around quickly in A and E in order to minimise admissions. We are beginning to get a picture of the knock-on effects of this pandemic.” (Doctor, 134-141)

Some participants felt that responses to covid-19 and the subsequent reorganisation of services had led to some poor decision-making which was affecting patient care broadly, with “people coming in with very serious problems which were being missed” (Doctor, 500-503). Relatedly, inadequate assessment of risk for patients and their places of discharge was also described, highlighting the context of services already struggling to cope before the pandemic:

“Something that usually takes years in the NHS happened over night with not enough realisation at the top of organisations quite what was happening. The government encouraged discharges to care homes with no testing system in place, saying it was low risk (Nurse, 913-918)

Where’s the support going to come from for these people? There are no Community Services! You know, we’re discharging people to their homes and there’s no physio. There’s no OT. There’s no carers. There’s no psychological support. […]. You know that there was never any of their stuff for people that have had lengthy ITU days before; this is not a new thing but there’s just so many of them now (Physiotherapist, 68-73)

It seemed impossible for these concerns to be raised without it being regarded as critical and unhelpful for morale:
“I also think is a problem that people are able to accept that we are providing substandard care to everyone other than those with covid. It, um I don’t know what the solution is. It’s very hard knowing how to raise this. Not so much a whistleblowing as it was, just a public safety issue. But people are working hard. People are getting tired now and the last thing they need is for people to turn around and say, ‘Oh, by the way, you’re all crap’.” (Doctor, 513-517).

Hierarchy of power and inequality

There was a widely reported disconnect between senior management and frontline staff, with clinicians’ views and requests frequently reported as being disregarded:

“We weren’t prepared. We were not ready. Immediately before the first wave hit our Hospital, we’d been begging Hospital management staff to cancel elective surgery because we started to see cases and we knew what was coming. They ignored our requests.” (Doctor, 158-160)

“I’d like to be able to say, ‘in hindsight, we would have done differently’. The fact is, us clinicians knew all along at the time. And our voices were quashed in a sea of management meetings, who frankly were rearranging deckchairs rather than encouraging us to make the changes we needed to make. Exec. teams must be led by clinicians and supported by managers. Not vice versa. I’m angry because I believe we were not heard.” (Doctor, 455-460)

Participants felt that risk was disproportionately assigned to the frontline and that those who were most vulnerable were not adequately protected:

“I work with others that have a lot to lose. Either from ethnicity, age, comorbidity. And yet they show up day after day. Certain senior colleagues have vanished under one guise or another. What gets my goat is their instructions, advice and criticisms from afar. They are largely white. Sadly, more men than women too.” (Doctor, 412-415)

“Covid-19 has exposed innumerable inequalities. I thought I was aware. I am not. I’m learning that organisations are powerful. How do the BAME frontline workers get heard?!“ (Doctor, 212-213)

“If anything, please can we take from this, that a white middle class manager, working from HOME has absolutely NO PLACE in assigning risk to any front-line staff seeing febrile and sick unscreened patients daily. That has happened to BAME employees in my organisation.” (Doctor, 417-420)
Many participants felt abandoned by their organisation and “poorly supported trainees felt like being left as sacrificial fodder” (Doctor, 722-724). Frequently frustrations and conflict emerged between staff groups, notably where GPs “won’t see anyone but us nurse practitioners are expected to” (Nurse, 126-127).

While some participants did report cohesive and supportive team working and management, the majority described a sense of abandonment by management and described anger that “the government failed us all” (Nurse, 929). This lack of support, combined with high levels of trauma created a sense of feeling hopeless and left many staff feeling disillusioned about their career and organisation:

“I’ve never felt more detached from senior management. After this is over, I’m going to seriously reflect on whether I feel this is an organisation I want to work for and with. I’m seeing it in a different light. I no longer think this is for me.” (Doctor, 291-294).

“The “talk” of management has been great, especially as staff died. Their actions however have been pitiful. In fact, insulting to those that have died as both patients and staff. Yet I have very limited faith anyone will personally realise, what they could have done which would have helped (Doctor, 421-424)

There was a sense of staff waiting for government guidance which was “non-existent but then came thick and fast - as soon as you implemented something everything changed again” (Nurse, 913-914) and this fuelled anxieties about best practice. More broadly, staff felt a personal mistrust of government. One particular “flash-point” for these views emerged around publicity regarding a senior government advisor, Dominic Cummings, who apparently broke lockdown rules:

“We want proper credible leadership which listens to experts, values its staff and its population. I don’t think I have ever been so angry with a government as this one over their behaviour over covid-19” and Cummings in particular (Doctor, 144-146)

“Families were giving up so much! And in fact, this one [paediatric oncology patient] may have limited time left .... Was giving up so much! And this man [Dominic Cummings] is allowed to break rules with impunity and treat the public with such disregard and such contempt that they feel like they can get away with it. Really?! ...um I think the experiences I’ve had the last few weeks have
been very, very different to any I've had before. And it feels quite personal when Dominic
Cummings is being defended on TV by the Prime Minister.” (Doctor, 382-387)

Discussion

Key findings were that while the health care workers who told their stories did experience intense
positive emotions, caring for covid-19 patients brought a significant emotional toll, and strained
relationships between immediate front-line staff, their families, management, and even government.
There was a sense that in the beginning of the pandemic, staff were driven by adrenalin and optimism;
but over time this dissipated to be replaced by exhaustion, numbness, and dread expectation of a
‘second wave’. Health care workers could reasonably be considered as ‘second victims’ of covid-19.
The stories reflected not only the personal horror of caring for profoundly ill patients who were not
responding to treatment, but also wider societal concerns including the failure to test older people
being discharged to care homes, and the emerging evidence of ‘long covid’: a key future challenge for
the NHS. Finally, anger over the chief advisor to the UK Prime Minister’s apparent breaking of
lockdown perhaps encapsulated wider fears and anger towards those not adhering to recommended
behavioural guidelines. Other issues were raised by respondents, although not in sufficient numbers
to consistently include as a ‘theme’. On participant, for example, considered the weekly ‘Clap for the
NHS’ to be showing solidarity with, and care for, NHS workers, while another considered it ‘virtue
signalling’ and patronising. There were no consistent positive themes.

Loyalties and fears of legal/organisational repercussions may result in understandable silences
among many NHS workers. This suppression denies access to honest descriptions from staff from
which many important lessons can be learned. This confidential and anonymous method of data
collection enabled us to bypass that censorship and as such, the data collected here provides valuable
insight into the experiences of health care workers at a time of extreme crisis. Nevertheless, the study
sample was small and while the recruiting tweets were disseminated widely, the recipients are likely
to have been restricted to a particular vocal and engaged sub-group of healthcare practitioners. In
addition, those who were motivated to engage with the study may have had a particular story they
wanted to tell. Finally, whilst every effort was made to simplify the covidconfidential website,
engagement still required a degree of effort and it is possible that the views expressed represented
the more extreme experiences leading to the most motivated participation. From a methodological
perspective, without the use of prompts to explore other potential viewpoints, we cannot ensure data
saturation, and exploration of these or future data according to profession, gender and age may
further unravel key issues.
The responses to these stories need be complex and multi-factorial, and not always easy to implement in a rapidly changing context at a local level. But some can be addressed. At a systemic level, the voices of workers at the front-line need to be heard and the effects of stress mitigated. There were clear rifts between ‘workers’ and ‘management’, senior and junior colleagues, and those with more or less power within the system. While these may not be novel findings in the NHS, they are amplified at a time of crisis, and cannot be ignored. Pathways of communication between each group, and sub-groups within them such as people from BAME backgrounds or those with legitimate personal health concerns, need to be established or re-established and respected within units of health care provision. A number of authors have detailed potential responses to mitigate the impact of covid-19 care on health professionals\textsuperscript{7,8} and these will not be further rehearsed here. However, as one example of the wider context of these issues, the NHS Employers website (https://www.nhsemployers.org/) notes that 30 per cent of staff do not feel able to talk openly to their line manager about stress, while 56 per cent of employers said they would like to improve staff wellbeing but did not know how to. The website provides access to the NHS Health and Wellbeing Framework which offers both organisational and individual strategies for change. Wider implementation of these existing strategies may be of significant benefit. We already have the tools to resolve many of these problems; they simply need to be implemented.

References


Author statement

Bennett: lead author of submitted paper, study design, and analysis.

Hunter: led analysis, contributed to study design and final submission.

Johnston: website design, set-up, and contributed to final submission

Noble: contributed to study design, analysis and final submission.

Jones: contributed to study design and final submission.
For peer review only

Trauma experience

Hierarchy of power & inequality

The shock of the virus

Collateral damage

Staff sacrifice & dedication
## COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain 1: Research team and reflexivity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal characteristics</td>
<td>1</td>
<td>Which author/s conducted the interview or focus group?</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>What were the researcher’s credentials? E.g. PhD, MD</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>What was their occupation at the time of the study?</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Was the researcher male or female?</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>What experience or training did the researcher have?</td>
<td>n/a</td>
</tr>
<tr>
<td>Relationship with participants</td>
<td>6</td>
<td>Was a relationship established prior to study commencement?</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>What did the participants know about the researcher? e.g. personal goals, reasons for doing the research</td>
<td>n/a</td>
</tr>
<tr>
<td>Interviewer characteristics</td>
<td>8</td>
<td>What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Domain 2: Study design</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theoretical framework and Theory</td>
<td>9</td>
<td>What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</td>
<td>4</td>
</tr>
<tr>
<td>Participant selection</td>
<td>10</td>
<td>How were participants selected? e.g. purposive, convenience, consecutive, snowball</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>How were participants approached? e.g. face-to-face, telephone, mail, email</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>How many participants were in the study?</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>How many people refused to participate or dropped out? Reasons?</td>
<td>n/a</td>
</tr>
<tr>
<td>Setting</td>
<td>14</td>
<td>Where was the data collected? e.g. home, clinic, workplace</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Was anyone else present besides the participants and researchers?</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>What are the important characteristics of the sample? e.g. demographic data, date</td>
<td>4</td>
</tr>
<tr>
<td>Data collection</td>
<td>17</td>
<td>Were questions, prompts, guides provided by the authors? Was it pilot tested?</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Were repeat interviews carried out? If yes, how many?</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Did the research use audio or visual recording to collect the data?</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Were field notes made during and/or after the inter view or focus group?</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>What was the duration of the inter views or focus group?</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>Was data saturation discussed?</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Were transcripts returned to participants for comment and/or analysis?</td>
<td>no</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td>-----------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>correction?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Domain 3: analysis and findings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Data analysis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of data coders</td>
<td>24</td>
<td>How many data coders coded the data?</td>
<td>4</td>
</tr>
<tr>
<td>Description of the coding tree</td>
<td>25</td>
<td>Did authors provide a description of the coding tree?</td>
<td>4</td>
</tr>
<tr>
<td>Derivation of themes</td>
<td>26</td>
<td>Were themes identified in advance or derived from the data?</td>
<td>4</td>
</tr>
<tr>
<td>Software</td>
<td>27</td>
<td>What software, if applicable, was used to manage the data?</td>
<td>n/a</td>
</tr>
<tr>
<td>Participant checking</td>
<td>28</td>
<td>Did participants provide feedback on the findings?</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Reporting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quotations presented</td>
<td>29</td>
<td>Were participant quotations presented to illustrate the themes/findings?</td>
<td>5-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Was each quotation identified? e.g. participant number</td>
<td></td>
</tr>
<tr>
<td>Data and findings consistent</td>
<td>30</td>
<td>Was there consistency between the data presented and the findings?</td>
<td>5-12</td>
</tr>
<tr>
<td>Clarity of major themes</td>
<td>31</td>
<td>Were major themes clearly presented in the findings?</td>
<td>5-12</td>
</tr>
<tr>
<td>Clarity of minor themes</td>
<td>32</td>
<td>Is there a description of diverse cases or discussion of minor themes?</td>
<td>no</td>
</tr>
</tbody>
</table>


*Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.*
# COVID CONFESSIONS: a qualitative exploration of health care workers experiences of working with covid-19

<table>
<thead>
<tr>
<th>Journal:</th>
<th>BMJ Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuscript ID</td>
<td>bmjopen-2020-043949.R2</td>
</tr>
<tr>
<td>Article Type:</td>
<td>Original research</td>
</tr>
<tr>
<td>Date Submitted by the Author:</td>
<td>24-Nov-2020</td>
</tr>
</tbody>
</table>
| Complete List of Authors: | Bennett, Paul; Swansea University, Psychology  
Noble, S; Cardiff University, Marie Curie Research Centre  
Johnston, Stephen; Swansea University, Psychology  
Jones, David; Prince Charles Hospital  
Hunter, Rachael; Swansea University, Psychology |
| Primary Subject Heading: | Health services research |
| Secondary Subject Heading: | Mental health |
| Keywords: | COVID-19, Human resource management < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, MENTAL HEALTH |
I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd (“BMJ”) its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.

The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge (“APC”) for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.

Other than as permitted in any relevant BMJ Author’s Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.
COVID CONFESSIONS: a qualitative exploration of health care workers experiences of working with covid-19

Paul Bennett¹
Simon Noble²
Stephen Johnston³
David Jones⁴
Rachael Hunter³

¹Corresponding author:
Prof. Paul Bennett PhD
Department of Psychology
Swansea University
Singleton Park
Swansea
SA2 8PP
UK
Email: p.d.bennett@swansea.ac.uk

²Marie Curie Research Centre,
Division of Population Medicine,
Cardiff University,
Cardiff,
UK

³Department of Psychology
Swansea University
Swansea
UK

⁴Dept Anaesthetics and Critical Care
Prince Charles Hospital
Merthyr Tydfil
UK
Abstract

Objectives: to gain insight into the experiences and concerns of front-line national health service (NHS) workers while caring for patients with covid-19

Design: Qualitative analysis of data collected through an anonymous website (www.covidconfidential) provided a repository of uncensored covid-19 experiences of frontline NHS workers, accessed via a link advertised on the Twitter feed of two high profile medical tweeters and their re-tweets.

Setting: Community of NHS workers who accessed this social media.

Participants: 54 health care workers, including doctors, nurses and physiotherapists, accessed the website and left a ‘story’.

Results: Stories ranged from one word to 10 minutes in length. Thematic analysis identified common themes, with a central aspect being the experience and psychological consequence of trauma. Specific themes were: (i) the shock of the virus, (ii) staff sacrifice and dedication, (iii) collateral damage ranging from personal health concerns to the long-term impact on, and care of, discharged patients, and (iv) a hierarchy of power and inequality within the health care system.

Conclusions: Covidconfidential gave an outlet for unprompted and uncensored stories of health care workers in the context of covid-19. In addition to personal experiences of trauma, there were perceptions that many operational difficulties stemmed from inequalities of power between management and front-line workers. Learning from these experiences will reduce staff distress and improve patient care in the face of further waves of the pandemic.

Article summary

Strengths and limitations of this study

- The covidconfidential website provided a safe context in which participants could offload stories of the care of covid-19 patients with no fear of personal or professional consequences.
- The unprompted nature of the process ensured that the stories told were most important to participants.
- Recruitment via Twitter resulted in a biased sample, largely comprising medical personnel and twitter users.
Funding statement
This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors'

Competing interests
No author has any competing interests in relation to this research.

Key words
Covid-19 qualitative health care workers trauma

Word count
4124 words
Introduction

There are limited qualitative data describing health care professionals’ experiences during the covid-19 pandemic. One small Chinese study by Liu et al.¹ reported core experiences to include duty of care, exhaustion due to heavy workloads and protective gear, fear of becoming infected and infecting others, feeling powerless to handle patients’ conditions, and managing relationships. Social support was vital to managing their emotions. In a larger study of Flemish primary care doctors, Verhoeven et al.² found high levels of concern over becoming infected, the emphasis on managing respiratory issues at the cost of non-covid-19 problems, and the mental health consequences for vulnerable individuals. Sethi et al’s study of 290 Pakistani health professionals found unprecedented workload and overstretched health facilities to be the dominant issues³. Whilst these studies will share commonalities, the experiences, perceptions and values of healthcare professionals may differ according to culture, healthcare system and governmental response to the pandemic. We therefore sought to gain insight into the experiences and concerns of front-line national health service (NHS) workers while caring for patients with covid-19.

The study was undertaken through a simple online resource, advertised through Twitter, for frontline health care professionals to tell their covid-story. The study was partly intended to provide a means of expressing and potentially moderating any distress participants may have experienced in the care of covid-19 patients, but also actively encouraged the expression of more positive experiences. The emotional consequences of this process have been reported elsewhere⁴. Here, we report the stories told by participants.

Methods

Ethical consent for the study was granted by the ethics committee of the Department of Psychology, Swansea University: approval number 4484.

Patient and public involvement

The study did not involve patients. However, participant perspective was provided by co-author Dr David Jones, a consultant in Intensive Care Medicine with a significant Twitter profile. His experiences
of covid-19 care and using social media to access healthcare professionals’ views was invaluable in the
design, conduct and reporting of this project.

Data collection

Data was collected between 14th March to 30th August 2020, during the first wave of covid-19. Participants were recruited via Twitter, initially through the tweets of two doctors (intensive care and palliative care consultants) involved in the project who had a cumulative following of 38,000 users. Targeted tweets regarding the project were also sent to medical Twitter “influencers”, with requests for retweeting and further dissemination. The tweets invited NHS colleagues to take part in a study in which they could record their experiences of care of patients with covid-19 both as a potential means of dealing with stress and as a way of anonymously recording their experiences.

At the covidconfidential webpage, participants were invited to ‘securely and anonymously tell your COVID story: your experiences, emotions, concerns, fears, as well as joyous or transforming experiences in the care of people with covid-19’ and informed that their ‘stories’ may be published in anonymous terms. They then completed a digital consent form and minimal demographic questionnaire (work role, gender, and age), before recording their story verbally or in written form using the videoask.com website, which provided transcripts of verbal stories. There was a 5-minute time limit for recording. One participant repeated this process to record 10 minutes of story. All audio recordings were deleted once transcribed.

In keeping with standard ethical practice, a Participant Information Sheet was provided. It highlighted that due to the anonymous nature of the study, we could not identify any people experiencing distress as a consequence of participation or their experiences or refer them to support. In addition, participants were asked to complete a brief measure of immediate emotional change following this process, and these data were monitored at intervals through the study to safeguard against consistent negative effects of the storytelling. No adverse responses were recorded. On completion of recording their stories, participants were directed to a webpage which provided links to potential sources of support.

Analysis
Transcripts of all audio and written data were analysed using the inductive thematic analysis of Braun and Clarke. In this, transcripts were read repeatedly to ensure accuracy and enable the identification and generation of relevant initial codes and textual units for features and patterns in the data. Extracts and phrases were used to identify potential themes, with relevant data (‘quotes’) gathered within identified themes. Initial analysis was conducted by RH and the data were systematically reviewed by PB and others in the team to ensure that a name, definition, and exhaustive set of data were identified to support each category. Regular reflective discussions were conducted (RH/PB) throughout the study in keeping with best practice qualitative methodology.

Results

Participants

Fifty-four frontline health care workers in the NHS involved in the care of patients with covid-19 told their story on the study website: covidconfidential.co.uk. Of these, 27 were doctors, 13 nurses, two physiotherapists, one radiographer, one health care assistant, and 10 ‘other’ including managers running services for covid-19 patients. Their average age was 43.3 years (range 21-58 years). Sixteen were male, 34 female, and four reported themselves as ‘other’ or non-binary. In addition, two doctors, one nurse, and one medical student reported having minimal contact with covid-19 patients. Their accounts are not reported here.

Data availability

Raw transcripts of the data analysed in the study are available from the lead author.

Findings

Thematic analysis was primarily conducted by RH and PB, both of whom are now academic psychologists after having worked in the NHS as clinical psychologists earlier in their careers. This revealed five key themes (see Figure 1). Themes are supported by verbatim quotes which also identify the role of the participant and the line/s at which the quote can be found in the raw data.

Insert figure 1 about here
The experience of trauma

Participant accounts clearly identified a paradox for many working on the frontline during covid-19. Their work was both immensely rewarding and profoundly traumatic. However, the costs frequently outweighed the emotional benefits. Many talked about feeling “broken” (Doctor, 197) by what was described as “the horror that is covid-19” (Nurse, 491). This language was used to depict how “we ended up smashing ourselves and our trainees to pieces to get a vaguely safe rota” (Doctor, 322). The working environment felt brutal, and staff reported regularly feeling inadequate and overwhelmed:

“I felt so inadequate and tried my very best to make sure these poor patients had anticipatory medication. Staff were in tears and I watched a group of cardiology nurses cry as they tried to cope with patients with severe covid”. (Nurse, 737-737).

The impact of working on the frontline in this pandemic was described as “affecting staff mentally, emotionally, psychologically and physically” (Nurse, 303-304). Trauma-related symptoms were common, with descriptions of intrusive, vivid and traumatic thoughts or memories, as well as emotional numbing:

“I think what I really feel is quite numb” (Nurse, 802)

“I think about it all the time. I think about all those people that died in the beginning alone. And I also really think about the patients that we discharged who are with us for 50 odd days who will never ever get back to what they were like before.” (Physiotherapist, 38-40)

“Nothing will ever prepare a person for having to tell a family their loved ones have died over the phone or standing there holding an ipad as they watch their dad pass away via a video link.” (Nurse 492-493)

Participants also reported a wider impact on their life and relationships whether in the short-term “I’m actually hiding from my family a little bit.” (Nurse, 803); “My partner is now, uh, moved out. So, uh, it’s had a huge impact on my life.” (Doctor, 615-616) or the future: “I think I will be reevaluating my career path after this.” (Nurse, 223).

Patient trauma was also highlighted, with devastating descriptions of psychological trauma among surviving Intensive Therapy Unit (ITU) patients:
“They don’t sleep. They have nightmares. They think that you know, one man doesn’t sleep because he’s worried that if he goes to sleep, he’ll never wake up again. Another man still thinks sometimes that his family are dead or that he, you know, his family sold him to some sort of slave trader, you know, those delirium kind of nightmares just haven’t gone away.” (Physiotherapist, 57-61)

The ‘shock’ of the virus

Workers described how they had “never seen so many...so many people who were so sick.” (Physiotherapist, 4-5); “some of the sickest I’ve ever seen.” (Nurse, 467-468). They were shocked by the physical and psychological brutality of the virus; separating families in their most desperate hour:

“They were the most sick people I’ve ever seen and there are so many people dying and we weren’t allowing any visitors. The thought of people saying, ‘bye to relatives via Skype just absolutely broke me every single day, and I cried and cried and cried about it when I got home.” (Physio, 8-11).

Staff were often shocked by who was vulnerable to the virus. One participant described how “we are getting our eyes opened because this disease does not discriminate.” (Other, 777). Indeed, some were shocked just how many young or middle-aged people were affected: “And young people! Not as the media would portray these elderly vulnerable with underlying medical conditions.” (Doctor, 171-172). Covid-19 does, however, disproportionately affect older people and this rendered many senior clinicians as highly vulnerable and consequently impacted on workforce availability:

“We were told of course that it should be the most senior person intubating, but also that they were the people probably at highest risk! And so I can see the look almost a fear in the eyes of some of my consulting colleagues.” (Doctor, 182-184)

There was broad agreement that services were “unprepared” for covid-19, personally and organisationally:

“I certainly wasn’t prepared for the horror that is covid-19, anyone that says they were is a liar.” (Nurse, 490-491)

“Before the government announced anything, we pulled together a team as we realised we could quickly be getting cases but were not prepared for it.” (Nurse, 904-907)
Living and working through this pandemic was described as “a world disaster. Hopefully once in a lifetime experience.” (Doctor, 429), but also a shared experience that patients and frontline staff had faced together:

“I found myself on a night shift on ITU (intensive therapy unit) with a gentleman on everything. ‘Kid, you shouldn’t be here, and I shouldn’t be here’. And how weird and strange it was that we were both here!” (Nurse, 807-809)

Staff sacrifice and dedication

The dedication of staff and their commitment to fulfil their duty of care was described as “Herculean…the extra work and hours that have been put in to support the NHS.” (Nurse, 930-931). This is in spite of the practical and emotional challenges faced:

“My clinical colleagues have been unbelievable. Adaptable, honest, efficient, true to patient need. Facing fear head on. Maintaining polite lines of conversation despite internally screaming at management types that it’s too little, too late.” (Doctor, 449-451)

“We have bent over backwards to flex towards patient need. At less than 6hr notice not infrequently. Many of us now have covid but there hasn’t been a shift unfilled. We want to step up to demand, for our patients and organisation. Yet… HR are demoralising us.” (Doctor, 193-196)

Fears of infection were influenced by experiences of caring for the most unwell patients. People described the risk of infection as “as something that was inevitable.” (Doctor, 886) but many were terrified and traumatised:

“If I’m not crying because I’m scared of getting ill or infecting my loved ones, then I’m awake at 3am after hearing families sob their hearts out because they cannot hold their loved ones in their last moments.” (Nurse, 493-496).

Importantly, the unprecedented and unique challenges of covid-19 meant that new ways of working had to be adopted and standards may be compromised:
“You have to change the way they are nursed, they don’t respond to things in the usual way or within usual time limits. This is hard when you’ve spent years learning now best to do something, it’s like you’re new to ITU again.” (Nurse, 467-470)

“They can’t work within their values. They can’t do the care they want to provide. And I’ve been talking to them [staff] a lot about seeing that feeling as ‘moral injury’ because that’s what they’re experiencing.” (Doctor, 895-897)

At the heart of testimonies, however, were descriptions of patient focussed care with many describing being “proud of myself” (Nurse, 594) and how “my patients are hugely important to me, at these times more than ever. I have a personal responsibility to them” (Doctor, 427-428). This dedication was also seen in the descriptions of “a kind of survivor guilt” (Doctor, 645) when forced into redeployment due to health risks. Herein staff were left feeling “worthless and guilty about not doing my bit for the NHS.” (Doctor, 708).

Collateral damage

Participant accounts were punctuated by regular descriptions of the repercussions, or ‘collateral damage’ of covid-19. This ranged from the “inevitable” (Doctor, 886) nature of contracting the virus, to inappropriate levels of risk forced upon staff:

“We wanted to make changes but were not heard. We’ve had staff die on our wards. I was reprimanded for wearing gloves and a pathetic ‘pinnie [apron] on the ward before one member of staff member died, because it wasn’t approved policy yet and we would worry patients.” (Doctor, 451-454)

There were frequent concerns relating to marginalised and vulnerable groups, with reports of inadequate risk assessments as well as a description of inappropriate ‘do not resuscitate’ instruction both highlighted:

“The response of my organisation to the employees of BAME (black, Asian, and minority ethnic) origin has left me feeling bitter. In fact; appalled. My colleagues deserve so much more than a prefilled risk assessment, sent awaiting a signature. Surely inviting a person to discuss is the first point of any risk conversation. WHY WOULD THIS EVER BE OVERLOOKED?! We have lost three staff... How many more!” (Doctor, 208-212)
“My work is with people with learning disabilities and I have seen how they have been marginalised even more than they have been prior to the advent of the pandemic. I have been asked on more than one occasion to clarify DNAR status when I believe that this is inappropriate.” (other, 580-583)

Significantly the health repercussions of continued lockdown, as cases of covid-19 declined, were indicated as being serious and far reaching for people with mental health issues:

“Only two patients on ITU have Covid. The rest are people at deaths door from suicide attempts. All have a history of mental illness, all known to mental health services. All having had a sequential deterioration over the lockdown period with reduction in mental health support services, community projects, peer support, drop ins etc. What I am seeing is the tip of the iceberg: those whose suicide attempts are not successful but bad enough to need ITU. What of all the others who are managed on non-critical care beds? What of those who are turned around quickly in A and E in order to minimise admissions. We are beginning to get a picture of the knock-on effects of this pandemic.” (Doctor, 134-141)

Some participants felt that responses to covid-19 and the subsequent reorganisation of services had led to some poor decision-making which was affecting patient care broadly, with “people coming in with very serious problems which were being missed” (Doctor, 500-503). Relatedly, inadequate assessment of risk for patients and their places of discharge was also described, highlighting the context of services already struggling to cope before the pandemic:

Something that usually takes years in the NHS happened over night with not enough realisation at the top of organisations quite what was happening. The government encouraged discharges to care homes with no testing system in place, saying it was low risk (Nurse, 913-918)

Where’s the support going to come from for these people? There are no Community Services! You know, we’re discharging people to their homes and there’s no physio. There’s no OT. There’s no carers. There’s no psychological support. […]. You know that there was never any of their stuff for people that have had lengthy ITU days before; this is not a new thing but there’s just so many of them now (Physiotherapist, 68-73)
It seemed impossible for these concerns to be raised without it being regarded as critical and unhelpful for morale:

“I also think is a problem that people are able to accept that we are providing substandard care to everyone other than those with covid. It, um I don’t know what the solution is. It’s very hard knowing how to raise this. Not so much a whistleblowing as it was, just a public safety issue. But people are working hard. People are getting tired now and the last thing they need is for people to turn around and say, ‘Oh, by the way, you’re all crap’.” (Doctor, 513-517).

Hierarchy of power and inequality

There was a widely reported disconnect between senior management and frontline staff, with clinicians’ views and requests frequently reported as being disregarded:

“We weren’t prepared. We were not ready. Immediately before the first wave hit our Hospital, we’d been begging Hospital management staff to cancel elective surgery because we started to see cases and we knew what was coming. They ignored our requests.” (Doctor, 158-160)

“I’d like to be able to say, ‘in hindsight, we would have done differently’. The fact is, us clinicians knew all along at the time. And our voices were quashed in a sea of management meetings, who frankly were rearranging deckchairs rather than encouraging us to make the changes we needed to make. Exec. teams must be led by clinicians and supported by managers. Not vice versa. I’m angry because I believe we were not heard.” (Doctor, 455-460)

Participants felt that risk was disproportionately assigned to the frontline and that those who were most vulnerable were not adequately protected:

“I work with others that have a lot to lose. Either from ethnicity, age, comorbidity. And yet they show up day after day. Certain senior colleagues have vanished under one guise or another. What gets my goat is their instructions, advice and criticisms from afar. They are largely white. Sadly, more men than women too.” (Doctor, 412-415)

“Covid-19 has exposed innumerable inequalities. I thought I was aware. I am not. I’m learning that organisations are powerful. How do the BAME frontline workers get heard?!” (Doctor, 212-213)
“If anything, please can we take from this, that a white middle class manager, working from HOME has absolutely NO PLACE in assigning risk to any front-line staff seeing febrile and sick unscreened patients daily. That has happened to BAME employees in my organisation.” (Doctor, 417-420)

Many participants felt abandoned by their organisation and “poorly supported trainees felt like being left as sacrificial fodder” (Doctor, 722-724). Frequently frustrations and conflict emerged between staff groups, notably where GPs “won’t see anyone but us nurse practitioners are expected to” (Nurse, 126-127).

While some participants did report cohesive and supportive team working and management, the majority described a sense of abandonment by management and described anger that “the government failed us all” (Nurse, 929). This lack of support, combined with high levels of trauma created a sense of feeling hopeless and left many staff feeling disillusioned about their career and organisation:

“I’ve never felt more detached from senior management. After this is over, I’m going to seriously reflect on whether I feel this is an organisation I want to work for and with. I’m seeing it in a different light. I no longer think this is for me.” (Doctor, 291-294).

“The "talk" of management has been great, especially as staff died. Their actions however have been pitiful. In fact, insulting to those that have died as both patients and staff. Yet I have very limited faith anyone will personally realise, what they could have done which would have helped” (Doctor, 421-424)

There was a sense of staff waiting for government guidance which was “non-existent but then came thick and fast - as soon as you implemented something everything changed again” (Nurse, 913-914) and this fuelled anxieties about best practice. More broadly, staff felt a personal mistrust of government. One particular “flash-point” for these views emerged around publicity regarding a senior government advisor, Dominic Cummings, who apparently broke lockdown rules:

“We want proper credible leadership which listens to experts, values its staff and its population. I don’t think I have ever been so angry with a government as this one over their behaviour over covid-19” and Cummings in particular (Doctor, 144-146)

“Families were giving up so much! And in fact, this one [paediatric oncology patient] may have limited time left .... Was giving up so much! And this man [Dominic Cummings] is allowed to break
rules with impunity and treat the public with such disregard and such contempt that they feel like they can get away with it. Really?! ...um I think the experiences I’ve had the last few weeks have been very, very different to any I’ve had before. And it feels quite personal when Dominic Cummings is being defended on TV by the Prime Minister.” (Doctor, 382-387)

Conclusion

This study aimed to gain better understanding of the experiences and concerns of front-line NHS workers while caring for patients with covid-19. Previous qualitative data from China, Belgium and Pakistan highlighted concerns regarding intensity of workloads, concerns regarding infection and overstretched facilities. By using an anonymised online platform, we were able to gain uncensored access to their stories, which may account for the additional themes emerging from our data corpus. Key findings highlighted that while health care workers shared intensely positive experiences, caring for covid-19 patients brought a significant emotional toll, and strained relationships between immediate front-line staff, their families, management, and even government. There was a sense that in the beginning of the pandemic, staff were driven by adrenalin and optimism; but over time this dissipated to be replaced by exhaustion, numbness, and dread expectation of a ‘second wave’. Health care workers could reasonably be considered as ‘second victims’ of covid-19. The stories reflected not only the personal horror of caring for profoundly ill patients who were not responding to treatment, but also wider societal concerns including the failure to test older people being discharged to care homes, and the emerging evidence of ‘long covid’: a key future challenge for the NHS. Finally, anger over the chief advisor to the UK Prime Minister’s apparent breaking of lockdown perhaps encapsulated wider fears and anger towards those not adhering to recommended behavioural guidelines. Other issues were raised by respondents, although not in sufficient numbers to consistently include as a ‘theme’. On participant, for example, considered the weekly ‘Clap for the NHS’ to be showing solidarity with, and care for, NHS workers, while another considered it ‘virtue signalling’ and patronising. There were no consistent positive themes.

Loyalties and fears of legal/organisational repercussions may result in understandable silences among many NHS workers. This suppression denies access to honest descriptions from staff from which many important lessons can be learned. This confidential and anonymous method of data collection enabled us to bypass that censorship and as such, the data collected here provides valuable insight into the experiences of health care workers at a time of extreme crisis.

It is important to acknowledge the limitations of this study. The study sample was small, particularly when considering the NHS employs over 400,000 doctors and nurses and while the
recruiting tweets were disseminated widely, there is likely to be sample bias since not all healthcare workers engage with social media. The recipients are likely to have been restricted to a particular vocal and engaged sub-group of healthcare practitioners and those who were motivated to engage with the study may have had a particular story they wanted to tell. Finally, whilst every effort was made to simplify the covidconfidential website, engagement still required a degree of effort and it is possible that the views expressed represented the more extreme experiences leading to the most motivated participation. From a methodological perspective, without the use of prompts to explore other potential viewpoints, we cannot ensure data saturation, and exploration of these or future data according to profession, gender and age may further unravel key issues.

Any strategic response to these stories would need be complex and multi-factorial, and are not always easy to implement in a rapidly changing context at a local level. But some can be addressed. At a systemic level, the voices of workers at the front-line need to be heard and the effects of stress mitigated. There were clear rifts between ‘workers’ and ‘management’, senior and junior colleagues, and those with more or less power within the system. While these may not be novel findings in the NHS, they are amplified at a time of crisis, and cannot be ignored. Pathways of communication between each group, and sub-groups within them (such as people from BAME backgrounds or those with legitimate personal health concerns) need to be established or re-established and respected within units of health care provision. A number of authors have detailed potential responses to mitigate the impact of covid-19 care on health professionals and these will not be further rehearsed here. However, as one example of the wider context of these issues, the NHS Employers website (https://www.nhsemployers.org/) notes that 30 per cent of staff do not feel able to talk openly to their line manager about stress, while 56 per cent of employers said they would like to improve staff wellbeing but did not know how to. The website provides access to the NHS Health and Wellbeing Framework which offers both organisational and individual strategies for change. Wider implementation of these existing strategies may be of significant benefit. We already have the tools to resolve many of these problems; they simply need to be implemented.

References


Figure 1: The five themes identified in the transcripts

Contributorship statement

Bennett: lead author of submitted paper, study design, and analysis.

Hunter: led analysis, contributed to study design and final submission.

Johnston: website design, set-up, and contributed to final submission

Noble: contributed to study design, analysis and final submission.

Jones: contributed to study design and final submission.

Competing interests: there are no competing interests

Funding: the study was not funded by an external funding body

Data sharing statement: Raw transcripts of the data analysed in the study are available from the lead author.
Trauma experience

Hierarchy of power & inequality

The shock of the virus

Collateral damage

Staff sacrifice & dedication
COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain 1: Research team and reflexivity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personal characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interviewer/facilitator</td>
<td>1</td>
<td>Which author/s conducted the interview or focus group?</td>
<td>n/a</td>
</tr>
<tr>
<td>Credentials</td>
<td>2</td>
<td>What were the researcher’s credentials? E.g. PhD, MD</td>
<td>n/a</td>
</tr>
<tr>
<td>Occupation</td>
<td>3</td>
<td>What was their occupation at the time of the study?</td>
<td>n/a</td>
</tr>
<tr>
<td>Gender</td>
<td>4</td>
<td>Was the researcher male or female?</td>
<td>n/a</td>
</tr>
<tr>
<td>Experience and training</td>
<td>5</td>
<td>What experience or training did the researcher have?</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Relationship with participants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship established</td>
<td>6</td>
<td>Was a relationship established prior to study commencement?</td>
<td>n/a</td>
</tr>
<tr>
<td>Participant knowledge of the interviewer</td>
<td>7</td>
<td>What did the participants know about the researcher? e.g. personal goals, reasons for doing the research</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Domain 2: Study design</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theoretical framework</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methodological orientation and Theory</td>
<td>9</td>
<td>What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</td>
<td>4</td>
</tr>
<tr>
<td><strong>Participant selection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sampling</td>
<td>10</td>
<td>How were participants selected? e.g. purposive, convenience, consecutive, snowball</td>
<td>4</td>
</tr>
<tr>
<td>Method of approach</td>
<td>11</td>
<td>How were participants approached? e.g. face-to-face, telephone, mail, email</td>
<td>4</td>
</tr>
<tr>
<td>Sample size</td>
<td>12</td>
<td>How many participants were in the study?</td>
<td>4</td>
</tr>
<tr>
<td>Non-participation</td>
<td>13</td>
<td>How many people refused to participate or dropped out? Reasons?</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting of data collection</td>
<td>14</td>
<td>Where was the data collected? e.g. home, clinic, workplace</td>
<td>4</td>
</tr>
<tr>
<td>Presence of non-participants</td>
<td>15</td>
<td>Was anyone else present besides the participants and researchers?</td>
<td>n/a</td>
</tr>
<tr>
<td>Description of sample</td>
<td>16</td>
<td>What are the important characteristics of the sample? e.g. demographic data, date</td>
<td>4</td>
</tr>
<tr>
<td><strong>Data collection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview guide</td>
<td>17</td>
<td>Were questions, prompts, guides provided by the authors? Was it pilot tested?</td>
<td>4</td>
</tr>
<tr>
<td>Repeat interviews</td>
<td>18</td>
<td>Were repeat inter views carried out? If yes, how many?</td>
<td>n/a</td>
</tr>
<tr>
<td>Audio/visual recording</td>
<td>19</td>
<td>Did the research use audio or visual recording to collect the data?</td>
<td>4</td>
</tr>
<tr>
<td>Field notes</td>
<td>20</td>
<td>Were field notes made during and/or after the inter view or focus group?</td>
<td>n/a</td>
</tr>
<tr>
<td>Duration</td>
<td>21</td>
<td>What was the duration of the inter views or focus group?</td>
<td>4</td>
</tr>
<tr>
<td>Data saturation</td>
<td>22</td>
<td>Was data saturation discussed?</td>
<td>no</td>
</tr>
<tr>
<td>Transcripts returned</td>
<td>23</td>
<td>Were transcripts returned to participants for comment and/or discussion?</td>
<td>no</td>
</tr>
</tbody>
</table>

Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.