



# BMJ Open Qualitative study exploring the well-being experiences of paediatric critical care consultants working in the UK during the COVID-19 pandemic

Isabelle Butcher <sup>1</sup>, Sumayyah Saeed,<sup>2</sup> Rachael Morrison,<sup>3</sup> Peter Donnelly,<sup>4</sup> Rachel Shaw <sup>5</sup>

**To cite:** Butcher I, Saeed S, Morrison R, *et al.* Qualitative study exploring the well-being experiences of paediatric critical care consultants working in the UK during the COVID-19 pandemic. *BMJ Open* 2022;**12**:e063697. doi:10.1136/bmjopen-2022-063697

► Prepublication history for this paper is available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2022-063697>).

Received 08 April 2022  
Accepted 02 August 2022



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

<sup>1</sup>Department of Psychiatry, University of Oxford, Oxford, UK

<sup>2</sup>School of Psychology, Aston University, Birmingham, UK

<sup>3</sup>Paediatric Intensive Care, Birmingham Children's Hospital NHS Foundation Trust, Birmingham, UK

<sup>4</sup>Paediatric Intensive Care Unit, The Royal Hospital for Children, Glasgow, UK

<sup>5</sup>College of Health & Life Sciences and Institute of Health & Neurodevelopment, Aston University, Birmingham, UK

## Correspondence to

Dr Rachel Shaw;  
[r.l.shaw@aston.ac.uk](mailto:r.l.shaw@aston.ac.uk)

## ABSTRACT

**Objectives** The aim of this study was to examine the well-being experiences of consultants working in paediatric critical care (PCC) settings in the UK during the COVID-19 pandemic.

**Design** Qualitative design using individual interviews and thematic analysis.

**Setting** PCC.

**Participants** Eleven medical consultants working in PCC in a range of PCC settings/transport teams in the UK from nine units participated. Participants ranged in years of experience as a consultant from four to 23 years.

**Methods** A set of open semistructured questions were used to elicit information about participants' experiences of workplace well-being. Interviews were audiorecorded and transcribed.

**Findings** Thematic analysis identified six themes and data saturation was reached. These were as follows: (1) positive and negative impact of working during COVID-19, (2) job satisfaction and public scrutiny in the unique environment of PCC, (3) supporting the workforce through modified shift work, (4) perceptions of support and recognition offered from the hospital management, (5) successful coping strategies are personal and adaptive, and (6) importance of civility and good teamwork

**Conclusion** Findings show that consultants' well-being is challenged in a number of ways and that the solutions to the problem of burn-out are multifaceted. Action is required from individual consultants, clinical teams, hospital management and national regulatory bodies. Our work corroborates the recent General Medical Council report highlighting doctors' core needs for well-being: autonomy, belonging, competence. Burn-out is a long-term problem, requiring sustainable solutions. Future research needs to develop and evaluate the effectiveness of evidence-based interventions to improve consultants' well-being. Trials of effectiveness need to present evidence that will persuade hospital management to invest in their consultants' well-being within the economic context of reduced budgets and limited PCC workforce.

## INTRODUCTION

Working in paediatric critical care (The authors note that PIC and PCC are used interchangeably, for this study PCC is used to encompass high dependency units (HDU),

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ A key strength to this research is its exploratory, interpretative design. With very little previous research describing the quality of consultants' experiences of burn-out and compassion fatigue, this study offers unique insight.
- ⇒ Individual interviews were conducted with consultants, which were led by their lived experience and what mattered to them, rather than being led by pre-determined theory.
- ⇒ We applied Yardley's quality criteria to ensure the research was undertaken to the highest possible standards.
- ⇒ Consultants participated from nine paediatric critical care units and data saturation was reached in the analysis. Nevertheless, it would be beneficial for future research to be conducted in other UK units and internationally to triangulate the findings to determine if they are transferable to other units.

and transport teams) (PCC) is stimulating and rewarding; however, healthcare professionals working in PCC are exposed daily to traumatic events and stressful situations. This study was designed to explore consultants' experiences of well-being and factors at work that challenge it. The workload within PCC is often consultant led and consultant delivered with a significant on call requirement. It is this intensity of work, which can lead to emotional and moral distress.<sup>1 2</sup> Therefore, it is unsurprising that research globally has shown that individuals working in PCC experience high rates of burn-out, compassion fatigue and symptoms associated with post-traumatic stress disorder.<sup>3</sup> Continual exposure to patient and family distress can be emotionally taxing for healthcare professionals working in PCC.

Prior to the COVID-19 pandemic, there has been a surge of evidence highlighting that poor well-being among PCC staff is a persistent



problem. To date, the literature has largely focused on nursing staff and trainee medical professionals.<sup>4 5</sup> The COVID-19 pandemic has unsurprisingly had wide reaching impact on the health and well-being of healthcare professionals due to the additional stressors and uncertainties experienced.<sup>6–10</sup> Furthermore, there is a lack of research that is focused on lived experience. There is also a paucity of evidence with consultants in PCC who face unique challenges; they are required to manage staff and support a wider team, as well as having to make critical clinical decisions, often as the most senior member of a team. To date, the research has predominantly focused on measuring the pathologies of burn-out, post-traumatic stress, compassion fatigue and moral distress using standardised measures.<sup>2 11</sup> While this research is important<sup>12 13</sup> it does not give a ‘full’ picture of healthcare professionals’ experiences at work, for example, how their burn-out makes them feel or how they perceive it impacts on their ability to perform. Furthermore, research to date has focused on measuring the size of the problem rather than exploring lived experiences to determine what might help improve PCC staff well-being.<sup>14</sup>

The paucity of research focusing on medical consultants working in PCC means little is known about this important staff group. This study aimed to explore UK PCC consultants’ experiences of well-being with a view to understanding how it may be improved.

The research questions were:

1. What challenges to their workplace well-being do PCC consultants experience?
2. What factors support PCC consultants’ well-being at work?

## METHOD

### Design

This study adopted an exploratory, interpretative qualitative design because of its aim to elicit lived experiences of PCC consultants’ well-being. This design allows individuals to freely articulate their thoughts, without the researcher being prescriptive. This means data collection is more dynamic, with the participant leading on what matters to them, rather than the researcher making assumptions.<sup>15 16</sup> The consolidated Consolidated criteria for Reporting Qualitative research<sup>17</sup> guidance was followed in the reporting of the study.

### Sample

This study was set within PCC units in the UK. Eligible participants were consultants in UK PCC units and/or transport teams.

Convenience and purposive sampling were adopted to ensure that all consultants at each unit had the opportunity to participate if they would like to as well as ensuring representation in the sample from consultants with different years of experiences.

### Procedure

The study was advertised through the PCC Society and on social media during April to June 2021 and volunteers

were invited to contact the research team. Interviews were conducted during May to June 2021. This study formed part of one author’s (SS) MSc Health Psychology.

Once participants had contacted the researcher, they were sent a participant information sheet and consent form, which could be completed electronically via Qualtrics. Participants were then invited to take part in an online semistructured interview. All interviews were conducted by independent researchers (SS and IB), who had no previous experience of PCC and was not connected to any of the participating units, Trusts or Health Boards. The topic guide was informed by existing literature as well as discussions with an advanced nurse practitioner (RM), a medical consultant (PD) and a health psychologist (RS). The topic guide included a set of topics and questions but allowed participants to clearly articulate their thoughts and experiences. Prior to being used the topic guide was discussed with PCC colleagues to ensure it flowed and topics were appropriate. SS was trained in conducting qualitative interviews by IB and RS to ensure that appropriate questioning, intonation and prompts were used.

Following completion of the interview, participants were sent a debrief form which signposted them to organisations that offer support to improve healthcare professional well-being. Recruitment ceased once data saturation had been reached. All interviews were audio-recorded, transcribed and stored on a secure online drive. Identifiable information was removed to protect participants’ confidentiality. Each participant was sent their transcript within 2 weeks of taking part to enable them to omit and/or change information in the transcript to ensure they were happy for it to be used. Clinical colleagues in the research team did not have access to the transcripts to further protect participants’ confidentiality.

A distress protocol was used to ensure appropriate safeguarding was in place should any issues of concern for participants or their colleagues be raised. No such issues were raised.

Each interview lasted between 30 min and 1 hour and 30 min.

### Demographic data

Self-report information on the following demographic variables was obtained: age, gender, ethnicity, years of experience as a consultant in PCC.

### Thematic data analysis

Data were analysed using inductive thematic analysis which offers a flexible and in-depth method guided by participants’ accounts rather than any predetermined assumptions.<sup>18</sup> A six-step approach to analysing the data was used as outlined below using Braun and Clarke’s methodology.<sup>18</sup> SS and IB led the analysis. All authors took part in steps 4–6.

1. Data were transcribed verbatim by the researcher (SS).
2. The transcripts were read and re read by members of the research (SS and IB) team to enable familiarisation

with the data. Interviews were electronically placed into NVivo qualitative software to enable the data to be organised systematically.

3. Systematic line-by-line coding was conducted to identify common themes within the data (SS and IB).
4. The themes were discussed within the whole research team to identify key common themes across the interviews enabling a thematic map to be constructed. Any differences in themes were discussed by all authors.
5. The themes were finalised, defined and names generated.
6. The final themes were checked with all members of the research team.

### Quality and rigour

To ensure that rigour was maintained throughout, the research team followed Yardley's<sup>19</sup> quality criteria for qualitative research ensuring the study was sensitive to the context being studied, the methods were rigorous, our reporting of the study was transparent and coherent, and the impact of the work was conveyed.

It is acknowledged that each author's experience inevitably shapes data analysis.<sup>20</sup> The researchers (SS and IB) were not previously known to any of the participants. It is important to note that the lead author (IB) is a female psychology postdoctoral researcher with experience in conducting research with individuals with severe mental illness. SS is a female MSc student with experience in conducting qualitative interviews. RM is a female advanced nurse practitioner with over 25 years' experience of working in the National Health Service (NHS). PD is a male medical consultant in PCC with over 13 years' experience of working in the NHS. RM and PD currently work in (different) PCC units and have published qualitative and quantitative research over the last ten years within the critical care research field. RS is a female health psychologist with expertise in qualitative methodology and healthcare intervention development and evaluation. She has over 20 years' experience of conducting applied clinical research with a range of populations in primary and secondary care and in the community.

### Patient and public involvement

Key stakeholders were involved in the conceptualisation of the study. Through the PCC Society, medical and nursing staff in UK PCC units were able to provide feedback on the design of the study, research questions and methods used. Findings were presented to PCC Society and feedback gathered, which has informed the writing of this manuscript.

## FINDINGS

Eleven PCC consultants took part, all of whom work in PCC units with consultant led services and on call commitments. Individuals ranged in age from 42 to 56. Of these, five were male and six were female. The years

### Box 1 Themes identified

#### Themes

1. Positive and negative impact of working during COVID-19.
2. Job satisfaction and public scrutiny in the unique environment of PCC.
3. Supporting the workforce through modified shift work.
4. Perceptions of support and recognition offered from hospital management.
5. Successful coping strategies are personal and adaptive.
6. Importance of civility and staff retention for good teamwork.

of experience as a PCC consultant ranged from 4 to 23. Participants were recruited from 9 UK PCC units.

The nine PCC units that participants worked in varied in terms of size and patient cohort. They included cardiac intensive care units (ICUs), general ICUs and mixed specialties units.

Thematic analysis generated six themes representing consultants' experiences of well-being (see box 1). Despite working in a highly stimulating and challenging environment all PCC consultants who took part were able to reflect on their experiences and what might improve their well-being.

### Theme 1: positive and negative impact of working during COVID-19

PCC consultants in this study recalled the anxiety they felt at the beginning of the pandemic, which for some, interrupted their sleep and pervaded thoughts about their working practice.

at the very beginning where there was a great unknown [...] there was a lot of anxiety and a lot of fear [...] trying to figure out how we could cope and adapt to that...[I never have] problems getting to sleep and I was lying in bed worrying, waking up early and worrying, erm, waking up and trying to prepare and plan [Participant 1009]

For others, it affected their close personal relationships by preventing well-established childcare routines, for instance, or making it impossible to pursue 'normal' activities typically undertaken to boost one's well-being.

there's a few things that really did impact my wellbeing, I think. The inability to have grandparents come and just spend some time with the kids, and to you know provide a bit of respite and childcare. [...] The inability to see friends, socially which is you know my world...the normal stuff that I do that maintains my wellbeing- that's been a big impact. And, you know the other thing has been my [partner] has been working from home, er for the last sort of 18 months now nearly, which you know is not [their] choice and you know we've had to adapt to that as well [Participant 1001]

One of the key changes experienced by consultants in this study between the first and second waves of the



pandemic was a shift from a sense of public goodwill in the first wave toward a feeling of frustration in the second. This frustration was brought about, among other things, by members of the public not wearing masks and not adhering to social distancing rules on public transport.

there was a lot of good feeling and public support in the first wave and by the second wave you know I was going on the train and people were not wearing their masks and you know would just drive me absolutely potty. And if you asked them to put their mask on...it only ever led to confrontation and it was just ugh this is just misery, utter misery [Participant 1004]

A key change for consultants working in PCC during the COVID-19 pandemic was having to respond to the significant demand to care for critically ill adults with COVID-19. Some PCC units were repurposed to accommodate adult COVID-19 patients and in other areas PCC staff were redeployed to local adult ICUs to meet the demand. For some, this was a sudden change and one which meant working with a very different patient group.

in the first wave were given [extremely short] notice to close down our PICU, move all our patients out and then transform into an adult intensive care unit, which we did...My smallest patient in the last month has been 600 grams. My patients, during covid-COVID-19, were typically greater than 120 kilograms. So, a very different population [Participant 1004]

It is clear that PCC consultants experienced anxiety in response to the pandemic, which for some, was coupled with significant changes to their practice. The pandemic was almost a double hit for participants due to the changes at work taking away those opportunities for informal communication with colleagues and being unable to see friends and family outside of work.

Nevertheless, participants were also able to clearly identify unexpected positive consequences of the COVID-19 pandemic. In particular, they appreciated the flexibility with remote attendance at meetings, rather than having to go to the hospital on days off.

Yeah, it made me much happier [...] instead of like dragging yourself in for pointless [...] meetings [...] you're like well why don't we do this all online so you can now live your life, attend the meetings you need to attend without attending you know [Participant 1005]

This may not sound so significant, but it was important to PCC consultants in this study. Often it was necessary to schedule activities such as meetings in their non-clinical time, which often included their days off. Remote attendance provided some respite and was less intrusive on their life outside of work.

## Theme 2: job satisfaction and public scrutiny in the unique environment of PCC

While the pandemic threw up new challenges, it was clear that PCC consultants are used to working in an environment which is both stimulating and challenging; that is often where their sense of job satisfaction comes from. However, some of these challenges can be significant and bring about moral distress. Consultants' experiences of moral distress often were connected to the unique environment of PCC, which deals with emergent and critical care of infants and children. This brings with it a degree of public scrutiny from families of critically ill children, but also society more generally. Some PCC consultants in this study felt the weight of public expectation due to increased media coverage and scrutiny of the care they provide.

I think society has changed [...] the very, widely publicised cases that have been in the news and things so it's sort of become doctors vs parents. And it's awful because [...] we all want the right thing for the child. [...] I can't put myself in the parent shoes in that situation, because no one wants their child to suffer for no reason. And I think that's, that's the biggest challenge what we do day in day out. Um, I think you know the easy thing do is send a child to intensive care, but it doesn't mean that it's the right thing. Because in 5 minutes I can put a tube down I can put lots of lines in, the hard thing is the very long conversation about really what is right [...] for that child and that family ...and [...] it's not something that happens once in a blue moon that happens every week, sometimes three times a week, and that must be happening across every PICU in the UK. [Participant 1003]

Sometimes making these incredibly complex, life and death decisions, requires court appearances for consultants (and others), which come with a significant sense of duty to the patient.

Before I go to the court for any coroner's inquest I feel that oh my god I wish I didn't have to do this...I go anyway regardless [...] it's not dread I don't how to describe that feeling but it's er not a nice feeling but I just tell myself I have to do this, finally I'm doing this for the child...I also remind myself that it's my duty to do this and be present [Participant 1010]

Alongside this, is the increased complexity of patients now seen in PCC.

60% of the children that come through the doors through PICU in the UK, are life limited. And over the last year in our unit that has become 90–100% [...] so that is challenging. [Participant 1002]

These extracts demonstrate the moral distress sometimes experienced by PCC consultants. Not only are there difficult decisions to be made, but they feel 'hamstrung' (Participant 1002) due to the demands of patient

confidentiality, set against the increased media coverage of individual cases sometimes instigated by families.

We can't discuss cases...but actually once the families start releasing that information then you can because I say it's not us that's done that [Participant 1002]

Nevertheless, while participants recognised these challenges, all individuals without hesitation were able to identify what gives them satisfaction as a PCC consultant. For some this was teaching other healthcare professionals, for others it was interacting with the patients and their families.

Definitely spending time with families, you know supporting families through ... the hardest times of their lives and making a difference to them. Erm... I think that's probably the most satisfying thing [Participant 1003]

The other thing I get a lot of satisfaction from personally is teaching the junior doctors. You know they get a real buzz of learning to do the practical things or learning how to deal with a new sick patient, and I really enjoy that aspect of it. [Participant 1005]

Participants were able to share their own experiences of moral distress and how in recent years their respective units have seen a shift in the population that they are treating, due to the complexity of patient cases now seen in PCC. Individuals also reflected that working in PCC involves working under public scrutiny. Despite these sometimes excessively high expectations from the public about what is possible in PCC, participants were able to clearly express that being a PCC consultant came with high levels of job satisfaction; the unique challenges faced in PCC are also what provide stimulation and fulfilment.

### Theme 3: supporting the workforce through modified shift work

PCC consultants in this study described growing challenges related to staffing, managing shift work and the ageing workforce.

I think better resourcing [is needed] so that we don't feel like we are not doing a good job because we feel like you know... sometimes there are 24 patients on the unit built for 18 and there still are only two consultants and you just can't do the job you want to do" [Participant 1008]

This volume of work is contrasted against the restricted availability of the workforce and the organisation of that workforce, in terms of shift management.

The consultant below highlights the potential impact of consultant fatigue, which in their assessment, could be prevented by different shift patterns.

A rota that doesn't involve a 24-hour shift where potentially I could be awake for the entire time and you could kill someone at hour 23, and you'd feel bad about that...but the risk of being tired and knowing

that you made that mistake because you were tired ... You know we all make mistakes all the time, [...] some mistakes can't be prevented, if you can prevent a mistake, then you should and I think that fatigue is something that should be prevented, because it's so well recognised [Participant 1006]

This becomes increasingly important as PCC consultants age. Some participants voiced a concern that as one gets older it becomes harder to maintain the same pace at work one had when newly qualified which leads them toward wanting to work in a different way.

I think that's something that needs to be looked at, such as succession planning and planning for all the older and more experienced consultants and how you can use their skills within a department and that maybe doing slightly less acute stuff and actually valuing that contribution as much as valuing the person who is up all night [Participant 1007]

There are clearly systemic challenges faced by PCC consultants in this study relating to the available workforce and the changes in demographics of that workforce. These are issues requiring hospital management input. The next theme identifies other issues the PCC consultants in this study wished to raise about support provided by their respective management teams.

### Theme 4: perceptions of support and recognition offered from hospital management

All consultants in this study perceived that well-being support provided by their hospital management teams was inadequate. Participants reflected on the creative well-being opportunities offered to staff such as the provision of yoga sessions, which were not always accessible to PCC consultants due to their location and timing.

Of course, HR provide yoga on a [week day] [...] it's not practical for most of us who have you know a clinician job, okay, so, I can't just disappear from the ICU to go and do downface dog for an hour. That's not reasonable... [Participant 1003]

Given the challenges to their well-being endured during the height of the COVID-19 pandemic described above, it was clear that PCC consultants in this study were not satisfied that the well-being support provided was fit for purpose.

Putting on a yoga class is probably not what people need, what they need is .... you know we've just lost a lot of patients it's been really sad and what should be done is management to come in and say that must have been really tough what could we do to help? [Participant 1003]

Yoga and similar activities were not accessible to PCC consultants. Furthermore, they were perceived



as a quick fix which did not provide the recognition of their effort consultants felt was due to them following the challenges of their working experiences during the pandemic. This was experienced as a lack of understanding by hospital management about what was required to improve and sustain the well-being of individuals working in PCC. While there was appreciation for the investment in psychological support for PCC staff, some consultants felt this was not what they needed.

The organisation will ... signpost you to the eyeballs to [laughs] you know, I don't know, occupational health, psychological blah, blah... and you know what I'm not interested [Participant 1014]

The following extract provides a good summary of the issues highlighted in this theme.

The [hospital management] look for all the kind of shiny gimmicky ways to just show that they care, without actually addressing the problem [...] the latest one is all about access to psychology and things, erm actually a lot of the problems people are facing, are related to workload and are related to work pressure and system pressure and things like that... Erm, so but at least then as an organisation, you can say that you care, and you try... so it does feel a little bit like lip service sometimes, to be honest [Participant 1006]

It seems that what is required by PCC consultants from hospital management is recognition for their services during the pandemic, recognition of the systemic challenges due to workforce limitations and sustainable well-being support that is appropriate and accessible to those working on clinical shifts.

Theme 5: successful coping strategies are personal and adaptive

As indicated in the previous theme, PCC consultants in this study wanted approaches to improve their well-being that were appropriate and accessible to them. Many were able to describe their own informal strategies to ensure that they maintain good well-being. These included the use of humour, exercise, having an out of work routine and talking with family. PCC consultants described how the sense of humour they use is unique to their place of work, and sometimes is what helps in stressful work situations.

I don't get angry at work, and I don't get depressed or cry at work...I tend to just cruise on there and get the best done and um make some inappropriate jokes and comments...and that's about it really [Participant 1001]

Hobbies outside of work were described as beneficial by some individuals.

I mean outside of the unit it is basically having a full set of things that make me happy...so um spending time with my kids makes me happy.... I've started to

learn the cello with my daughter...I also have an allotment and I'll be honest I mainly kill things but it's still quite fun and haha I have grown asparagus this year... [Participant 1009]

Others were a little more philosophical about it and suggested that the most successful adaptive strategy for them was the realisation that '*I can't control everything*' [Participant 1010].

I am a Christian, I have faith which helps me incredibly because I think there's a purpose er so a child dying for me is not a failure...you know 2 children with the exact same condition that I treated exactly the same and one recovers and the other one dies, it's not my success, it's not my failure. I've played my part to the best of my ability. Yeah, and it's not in my hands so those things, bother me but don't burden me [Participant 1013]

This range of accounts highlights the importance of finding one's own personal strategies for maintaining well-being, both while at work and outside of work.

Indeed, it was clear from participants' accounts that PCC consultants in this study found that when they experienced stressors both in and outside of work, their well-being was further challenged.

It's like when you're a boxer and you're in the boxing ring and the guy's punching your face and that's work, and you get to the end of the round, and you go home. And when you get to your corner, your trainer turns around and starts punching you in the face as well then it's life isn't very fair at those points...And you can see it all starts to fall apart a little bit and you know.... [Participant 1001]

This theme has demonstrated the importance of adaptive strategies for managing well-being and that they need to be personalised to the individual. Furthermore, it has highlighted that when there are combined stressors from work and outside of work, well-being can be significantly compromised. Some PCC consultants need support in establishing barriers between work and home life. Moreover, there needs to be a mechanism to communicate those life events outside of work which can affect one's ability to function at work. This requires good working relationships.

#### Theme 6: importance of civility and staff retention for good teamwork

As above, PCC consultants recognised the importance of civility within the PCC team. Creating close relationships with colleagues facilitates better communication and honesty which can help in situations like those above, when there are multiples stressors.

It is like a team bonding looking after each other and having a chat with other people, where you find out what's going on in their lives, and whether there are other stresses [Participant 1009]

Furthermore, working in PCC was described as dependent on teamwork, where professionals from different backgrounds come together to achieve one goal.

ICU is not about individuals without the team and our nursing team are phenomenal, erm, so we need them on the work we do. [Participant 1005]

The significance of the team was highlighted further by some due to the ‘*huge exodus*’ [Participant 1005] of nursing staff they are currently experiencing.

We’ve got a huge sort of exodus of nursing staff at the moment...and that means that there’s uncertainty in turnover in the nursing staff now, we have no control over that...suddenly there’s more work for everybody else to do as we try [...] to get to know somebody new, [it’s] like moving through treacle [Participant 1003]

This poor staff retention has repercussions across the unit with PCC consultants taking on extra shifts or avoiding taking leave because they do not want to let their colleagues down. This remains the case despite consultants knowing they need time away from work.

I have considered taking time out from work but felt that I couldn’t do that because of the impact on my colleagues.... we’ve all been through the same experience. So er, so that’s where we are. [Participant 1003]

PCC consultants in this study recognised the important and positive impact of civility and good teamwork. Working closely together and supporting each other was one of the strategies used to manage the challenges faced by poor staff retention. Burn-out was raised in this discussion as something experienced due to the challenges in the workforce, but was clearly something that consultants were able to share with colleagues.

[We’re a] big group of consultants and good group of nursing team and we are very honest and open about [burnout]...able to talk about it and hold up our hands and say we’re feeling a bit the same and trying to help each other [Participant 1008]

Civil relationships within PCC teams on the unit were described as central to good teamwork, which was being challenged by poor staff retention, especially among nursing staff. This theme relates to others reported. Growing the workforce requires system-level change and investment. As stated by some PCC consultants in this study, this is not within their gift to change, so instead they focus on maintaining those civil relationships which create a supportive culture on the unit.

In summary, the themes presented have identified the factors which challenge consultants’ own well-being and that of others working in PCC. They have presented the positive factors which can help to create a well-being-supportive culture in PCC. The first theme identified the challenges PCC consultants experienced during the COVID-19 pandemic. The remaining themes cover issues that pre-existed the pandemic and which focus on

issues relating to the unique environment of PCC, how the workforce is structured, stressors in and out of work, adaptive strategies for maintaining well-being and the importance of civility and good teamwork in maintaining good quality care. PCC consultants’ recommendations for solutions focused on the need to grow and develop the structure of the workforce and how shift work is organised, including the tapering of on-call shifts as staff age. They wanted recognition from hospital management and instead of short-term provision of well-being activities, they wanted more sustainable psychological support, for example, from psychologists, to be available, ideally without need for referral.

## DISCUSSION

PCC consultants’ accounts have shown us that their well-being can be challenged in a number of ways and that multifaceted strategies are required to improve staff well-being. Not surprisingly, consultants’ well-being was challenged during the height of the COVID-19 pandemic, but there were positives drawn from that experience too. The key challenges to consultants’ well-being focused around systemic issues relating to shift patterns, the ageing workforce, high turnover of nursing staff. These challenges to well-being sometimes manifested as compassion fatigue and/or burn-out but consultants felt able to be honest about this and share their experiences with colleagues. There is little evidence on the nature of compassion fatigue or how we might remedy it. Indeed, a recent review by Sinclair *et al* recommended further examination and reconceptualisation of the concept.<sup>21</sup>

The challenges to well-being identified in this study are consistent with existing literature, for example, it is widely documented that working shifts becomes increasingly harder the older one gets.<sup>22–26</sup> Furthermore, regardless of their age, consultants did not see themselves in an acute clinical role ‘forever’ with some considering more time spent in education or research. This is not a surprise, and these findings support the recommendations outlined by the British Medical Association,<sup>27</sup> which include (but are not limited to): (1) ensuring staff are able to change parts of their role through job planning; (2) consultants are able to work flexibly and where possible remotely; (3) consultants who are going through the menopause should be adequately supported and (4) consultants should feel supported and included in a workplace where mental and physical well-being are prioritised. These findings also support those from previous surveys conducted by the Royal College of Physicians that illustrated that shift patterns were a factor in consultants’ decisions to retire early.<sup>28 29</sup> Evidence indicates that at the age of 55, nights become more challenging with greater recovery time needed post nights. This finding suggests that greater consideration needs to be paid to the impact that shift work and being ‘on call’ can have on staff well-being. Hospital management needs to consider alternative options for consultants as they age,



to ensure their expertise is valued but their well-being is not compromised.

Working in COVID-19 has and continues to have a huge impact on healthcare professionals' well-being.<sup>30–34</sup> Notwithstanding the uncertainty and anxiety during the pandemic, participants in this study identified some positive factors such as being able to work (non-clinically) remotely. Participants reflected on the pandemic in a balanced manner, which is especially powerful because these interviews were conducted during the pandemic.

It is widely evident that working in PCC brings unique challenges but participants in this study were able to identify quickly without hesitation what gives them satisfaction as a PCC consultant, suggesting that despite the stressful environment, these individuals' enthusiasm and the satisfaction gained from the job is what enables them to continue to work in PCC.

The importance of having a good support network outside of work was deemed to be integral to ensuring optimal well-being is maintained. For some this included gardening, for others it meant spending time with their families and for others this was provided by their own personal faith belief system. It is widely evidenced that having good support networks and recreational activities outside of work can ensure good well-being is maintained.<sup>35–36</sup> Recent research surrounding social prescribing has identified benefits of 'prescribing' social activities and local groups in the alleviation of symptoms associated with depression.<sup>37–38</sup>

Working in PCC requires one to work as part of a team<sup>39</sup> and recognition of the wider team<sup>40–42</sup> was especially important for consultants in this study. The nursing team was considered crucial and the impact that having a nursing workforce that is 'unstable' and changeable has on their own well-being was emphasised. However, individuals also expressed feelings of not wanting to cause more work for colleagues which resulted in them taking on extra shifts or not taking a break from work when it was needed. This sense of duty and care for one another is highly evidenced in occupations,<sup>43–44</sup> particularly when the teams are cohesive and this data indicates there is a clear sense of comradery within the consultant staff group in each unit.

Interestingly, participants reported unprompted that the support offered by their hospital management was insufficient and not appropriate for their needs. Staff stated that well-being offers were inaccessible due to clinical shift patterns. Consultants want more and need more than sign posting to internal or external services. While some recognise this is challenging there was a sense that support offered by Trusts and Boards was insincere and not sustainable for PCC staff.

This was a relatively small and in-depth study which focused on UK PCC units. A key strength of this study is that the individuals who participated ranged in their experience as a PCC consultant which gave representation across levels of consultant expertise. Further work in overseas PCC units is required to triangulate our findings

and determine whether they are transferable to other settings. Yardley's<sup>19</sup> quality criteria helped ensure the study design was appropriate to answer the research questions and it guided reflection following completion of the study. On reflection, authors were content that all criteria were met.

### Clinical implications

The problem of burn-out among doctors has been recognised by the UK government<sup>45</sup> and the General Medical Council (GMC) and the issue of poor well-being has been prioritised in the NHS Health and Well-being Framework.<sup>46</sup> Despite this acknowledgement of the problem, there remains very little action at a national or organisational level to provide evidence-based interventions to support the well-being of staff generally, and nothing to date which focuses on PCC consultants. Our research has indicated that current well-being offerings from hospital management do not meet the needs of consultants. Furthermore, they are designed to help support staff in crisis rather than prevent those crises from happening.

Individual and systemic interventions are required to develop resilient systems within which individuals feel psychologically secure to express their concerns and vulnerabilities and are supported to improve their well-being. The GMC report<sup>46</sup> and this study supports the psychological theory of self-determination<sup>47</sup> as a way of understanding the basic psychological elements of well-being, that is, what is required for consultants to experience well-being at work. These are: autonomy, belonging and competence. In line with the GMC report, this study identified that consultants need to be felt heard, to be given a voice to express what would improve their well-being (autonomy); teamwork and a nurturing culture foster an environment in which consultants are able to flourish (belonging); and the workload needs to be realistic and achievable in order for consultants to feel competent (competence).

More specifically, this study has identified an urgent need for PCC units and hospital management to work alongside senior policy makers to ensure that each member of the workforce is valued regardless of their age and that an individual's well-being is not compromised, while also not compromising the care provided to patients. Hospital management teams and PCC units need to work together to ensure that well-being opportunities are accessible and available to all staff regardless of the shift patterns they work. While consultants recognised the need to improve their well-being, they were unsure how to achieve this. There was clear disdain for the offer of yoga; something more substantial was required. Where there was a psychologist on the PCC unit, this was greatly appreciated, but a desire for a drop-in service 24–7 was expressed. Perhaps the inclusion of a conversation about well-being, where consultants are invited to discuss their experiences of burn-out and moral distress, would be welcomed. This

could form part of doctors' appraisal process and even GMC registration.

In addition, there urgently now needs to be focused attention on the longer-term planning for the ageing consultant workforce. In line with the GMC and British Medical Association (BMA) guidance this study recommends a review of current rota and shift patterns and the piloting of new systems which would enable consultants to continue to practise as they age, while accommodating their need to work fewer on-call shifts, and their desire to mentor junior staff coming through. This may reduce the number of consultants choosing to retire early because they can no longer cope with the work schedules.

### Future research

Future research needs to look toward implementing and evaluating evidence-based interventions designed to improve staff well-being. Psychological measures will be required to determine the impact of those interventions on staff burn-out and well-being. Furthermore, the impact of improved PCC consultant well-being needs to be measured in terms of staff retention, sickness, and numbers leaving the specialty and the profession.<sup>28 29</sup>

### CONCLUSION

To conclude, the findings from this study clearly indicate that consultants working in PCC face a number of challenges to their well-being. Current offerings to improve well-being do not meet consultants' needs. There are some identifiable factors which need to be tackled, for example, rotas and shift patterns, especially considering the ageing consultant workforce. Our study supports the findings of the GMC report and other research which has identified the ABC of doctors' core needs: autonomy, belonging and competence. Evidence-based interventions to improve consultant well-being need to be developed and systematically evaluated to determine how to improve consultant well-being and reduce the levels of burn-out and compassion fatigue among PCC consultants.

**Acknowledgements** The study authors wish to thank the Paediatric Critical Care Society for supporting this project. The authors also wish to thank the clinicians in each unit who helped recruit participants for this project. Finally, the study authors wish to thank each participant that kindly took part.

**Contributors** RM, PD, RS and SS conceptualised the study. RS managed the project as academic supervisor to SS. RM and PD provided clinical supervision. IB supported RS in project management. SS collected the data. SS and IB led the data analysis with contributions from all other authors. IB led the writing of the manuscript with contributions from all other authors. RS is guarantor of the manuscript.

**Funding** There was no funding for this study as it was undertaken as part of an MSc Health Psychology project at Aston University. IB's time was funded by Birmingham Women's and Children's NHS Foundation Trust Paediatric Intensive Care Charity funds through the sWell project, a single site project investigating staff wellbeing in paediatric intensive care at Birmingham Children's Hospital, Birmingham, UK (Ref: 37-6-124).

**Competing interests** None declared.

**Patient and public involvement** Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

**Patient consent for publication** Not applicable.

**Ethics approval** This study involves human participants and was approved by Aston University Research Ethics Committee (ref: Psych 200248747). Participants gave informed consent to participate in the study before taking part.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data availability statement** All available data from the study are included in the article. We did not seek consent from participants to make transcripts available because of possible threats to their anonymity.

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

### ORCID iDs

Isabelle Butcher <http://orcid.org/0000-0003-2915-8269>

Rachel Shaw <http://orcid.org/0000-0002-0438-7666>

### REFERENCES

- Colville G. Paediatric intensive care nurses report higher empathy but also higher burnout than other health professionals. *Evid Based Nurs* 2017.
- Colville GA, Smith JG, Brierley J, et al. Coping with staff burnout and work-related posttraumatic stress in intensive Care. *Pediatric Critical Care Medicine* 2017;18:e267-73.
- !!! INVALID CITATION !!!3-5.
- Barr P. The five-factor model of personality, work stress and professional quality of life in neonatal intensive care unit nurses. *J Adv Nurs* 2018;74:1349-58.
- Bursch B, Emerson ND, Arevian AC, et al. Feasibility of online mental wellness self-assessment and feedback for pediatric and neonatal critical care nurses. *J Pediatr Nurs* 2018;43:62-8.
- Burnett H, Gibson P, Pinto C. Not Just Big Kids: Paediatric Intensive Care Nurses' Experience of Working in Adult Intensive Care during the COVID-19 Pandemic in A UK Hospital. *J Nurs Pract* 2020;3:143-7.
- Bates A, Ottaway J, Moyses H, et al. Psychological impact of caring for critically ill patients during the Covid-19 pandemic and recommendations for staff support. *J Intensive Care Soc* 2021;22:312-318.
- Rodríguez IS, Santos PCP, Delgado AF, et al. Burnout in pediatric critical care medicine: more challenging days during the COVID-19 pandemic. *Rev Assoc Med Bras* 2020;66:1016-7.
- Galanis P, Vraka I, Fragkou D, et al. Nurses' burnout and associated risk factors during the COVID-19 pandemic: a systematic review and meta-analysis. *J Adv Nurs* 2021;77:3286-3302.
- Greenberg N, Weston D, Hall C. The mental health of critical care and anaesthetic staff during COVID-19. *medRxiv* 2020.
- Colville G. Paediatric intensive care nurses report higher empathy but also higher burnout than other health professionals. *Evid Based Nurs* 2018;21:25.
- Jones GAL, Colville GA, Ramnarayan P, et al. Psychological impact of working in paediatric intensive care. A UK-wide prevalence study. *Arch Dis Child* 2020;105:470-5.
- Rodríguez-Rey R, Palacios A, Alonso-Tapia J, et al. Burnout and posttraumatic stress in paediatric critical care personnel: prediction from resilience and coping styles. *Aust Crit Care* 2019;32:46-53.
- Colville GA, Smith JG, Brierley J, et al. Coping with staff burnout and work-related posttraumatic stress in intensive care. *Pediatr Crit Care Med* 2017;18:e267-73.
- Greenhalgh T, Taylor R. How to read a paper: papers that go beyond numbers (qualitative research). *BMJ* 1997;315:740-3.
- Paley J, Lilford R. Qualitative methods: an alternative view. *BMJ* 2011;342:d424.
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;19:349-57.
- Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3:77-101.
- Yardley L. Dilemmas in qualitative health research. *Psychol Health* 2000;15:215-28.
- Willig C. Interpretation and analysis. *The SAGE handbook of qualitative data analysis* 2014;481.



- 21 Sinclair S, Raffin-Bouchal S, Venturato L, *et al.* Compassion fatigue: a meta-narrative review of the healthcare literature. *Int J Nurs Stud* 2017;69:9–24.
- 22 Blok MM, de Looze MP. What is the evidence for less shift work tolerance in older workers? *Ergonomics* 2011;54:221–32.
- 23 van de Ven HA, van der Klink JJJ, Vetter C, *et al.* Sleep and need for recovery in shift workers: do chronotype and age matter? *Ergonomics* 2016;59:310–24.
- 24 Harrington JM. Health effects of shift work and extended hours of work. *Occup Environ Med* 2001;58:68–72.
- 25 Brown JP, Martin D, Nagaria Z, *et al.* Mental health consequences of shift work: an updated review. *Curr Psychiatry Rep* 2020;22:7.
- 26 Ferguson BA, Lauriski DR, Huecker M, *et al.* Testing alertness of emergency physicians: a novel quantitative measure of alertness and implications for worker and patient care. *J Emerg Med* 2020;58:514–9.
- 27 Association BM. *Consultant workforce shortages and solutions: now and in the future*, 2020.
- 28 RCo P. *Later careers: stemming the drain of expertise and skills from the profession*, 2017.
- 29 RCo P. *Consultant physician wellbeing survey*, 2017.
- 30 Ornell F, Halpern SC, Kessler FHP, *et al.* The impact of the COVID-19 pandemic on the mental health of healthcare professionals. *Cad Saude Publica* 2020;36:e00063520.
- 31 Giusti EM, Pedroli E, D'Aniello GE, *et al.* The psychological impact of the COVID-19 outbreak on health professionals: a cross-sectional study. *Front Psychol* 2020;11.
- 32 Lamb D, Gnanapragasam S, Greenberg N. The psychosocial impact of the COVID-19 pandemic on 4,378 UK healthcare workers and ancillary staff: initial baseline data from a cohort study collected during the first wave of the pandemic. *medRxiv* 2021.
- 33 Danet AD. Psychological impact of COVID-19 pandemic in Western frontline healthcare professionals. *A systematic review. Medicina Clinica* 2021.
- 34 Ffrench-O'Carroll R, Feeley T, Tan MH, Magner C, *et al.* Psychological impact of COVID-19 on staff working in paediatric and adult critical care. *Br J Anaesth* 2021;126:e39–41.
- 35 Roe J, Aspinall P. The restorative benefits of walking in urban and rural settings in adults with good and poor mental health. *Health Place* 2011;17:103–13.
- 36 Haslam C, Cruwys T, Haslam SA, *et al.* Groups 4 health: evidence that a social-identity intervention that builds and strengthens social group membership improves mental health. *J Affect Disord* 2016;194:188–95.
- 37 Carnes D, Sohanpal R, Frostick C, *et al.* The impact of a social prescribing service on patients in primary care: a mixed methods evaluation. *BMC Health Serv Res* 2017;17:1–9.
- 38 Husk K, Elston J, Gradinger F, *et al.* Social prescribing: where is the evidence? *Br J Gen Pract* 2019;69:6–7.
- 39 Reader TW, Cuthbertson BH. *Teamwork and leadership in the critical care unit*. The organization of critical care: Springer, 2014: 127–35.
- 40 Sherwood G, Thomas E, Bennett DS, *et al.* A teamwork model to promote patient safety in critical care. *Crit Care Nurs Clin North Am* 2002;14:333–40.
- 41 Brown MS, Ohlinger J, Rusk C, *et al.* Implementing potentially better practices for multidisciplinary team building: creating a neonatal intensive care unit culture of collaboration. *Pediatrics* 2003;111:e482–8.
- 42 Shaw DJ, Davidson JE, Smilde RI, *et al.* Multidisciplinary team training to enhance family communication in the ICU. *Crit Care Med* 2014;42:265–71.
- 43 Murden F, Bailey D, Mackenzie F, *et al.* The impact and effect of emotional resilience on performance: an overview for surgeons and other healthcare professionals. *Br J Oral Maxillofac Surg* 2018;56:786–90.
- 44 Xyrichis A, Ream E. Teamwork: a concept analysis. *J Adv Nurs* 2008;61:232–41.
- 45 HaSC C. Workforce burnout and resilience in the NHS and social care. *House of Commons* 2021:1–65.
- 46 West M, Coia D. Caring for doctors, caring for patients. *General Medical Council* 2019.
- 47 Van den Broeck A, Ferris DL, Chang C-H, *et al.* A review of self-determination theory's basic psychological needs at work. *J Manage* 2016;42:1195–229.