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A qualitative study exploring the wellbeing experiences of Paediatric Critical Care consultants working in the UK

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RUNNING HEADER: WELLBEING EXPERIENCES OF PCC CONSULTANTS

A qualitative study exploring the wellbeing experiences of Paediatric Critical Care consultants working in the UK

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Abstract

Objectives: The aim of this study was to examine the wellbeing experiences of consultants working in Paediatric Critical Care (PCC) settings within the United Kingdom (UK).
Design: Qualitative design
Setting: Paediatric critical care
Participants: 11 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.
Interventions: A set of open semi-structured questions were used to elicit information about participants' experiences of compassion fatigue and burnout, and their wellbeing more broadly. Interviews were audio recorded and transcribed. Data were analysed thematically.
Results: Thematic analysis identified eight themes. These were; i) *positive and negative impact of working during COVID19,* ii) *job satisfaction and scrutiny in the unique environment of PCC*, iii) *the value of supporting an ageing workforce through modified shift work,* iv) *support and recognition from the Trust/Board*, v) *the use of personal and adaptive coping strategies*, vi) *importance of civility and good team work*, vii) *recognition of the effect of stressors in and out of work* and viii) *recommendations for future solutions to enhance optimal wellbeing for PCC consultants.*
Conclusion: We have provided insight into PCC consultants' burnout and wellbeing experiences. Increasing difficulties with on-call and night shifts as one ages were reported. Action on shift patterns is needed to protect and retain this expert workforce. Consultants felt Trusts/Boards could do more to provide accessible wellbeing interventions, tailored to their needs. Where funded PCC psychology posts existed, they were greatly appreciated. Our work corroborates the recent General Medical Council report highlighting doctors' core needs for wellbeing: autonomy, belonging, competence. Burnout is a long-term problem, requiring sustainable solutions. Evidence-based interventions to improve consultants' wellbeing need to be evaluated to determine how we can best support this PCC workforce.

Key words: intensive care units, pediatric; consultants; burnout, professional; occupational stress; compassion fatigue; qualitative research

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Strengths and Limitations

- A key strength to this research is its exploratory design. With very little previous research describing the quality of consultants' experiences of burnout and compassion fatigue, this study offers unique insight.
- Individual interviews were conducted with consultants, which were led by their own experiences and what mattered to them, rather than being led by predetermined theory.
- We applied Yardley's quality criteria to ensure the research was undertaken to the highest possible standards.
- Although we have representation from nine paediatric intensive care units across the UK, we acknowledge this may be perceived as a small sample by some. Further research in other units and across the international field of paediatric critical care would help strengthen the findings.

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Introduction

Working in paediatric critical care[1] (PCC) is a stimulating and rewarding environment in which to work however healthcare professionals working in PCC are exposed daily to traumatic events and stressful situations. In addition, the workload within PCC is often both consultant led and consultant delivered with a significant on call requirement. Working in PCC can be stressful due to the intensity of the work, emotional and moral distress.[1 2] It is unsurprising therefore that research globally has shown that individuals working in PCC experience high rates of burnout, compassion fatigue and symptoms associations with posttraumatic stress disorder (PTSD)[3-5]. Continual exposure to patient and family distress can be emotionally taxing for healthcare professionals working in PCC.

In recent years there has been a surge of evidence highlighting that poor wellbeing amongst staff working in PCC is a persistent problem. The literature to date has largely focused on nursing staff and trainee medical professionals.[6 7] Furthermore within the current research field there is a lack of research that is solution focused. This research is compelling and highlights the issues that these healthcare professionals face working in PCC. There is 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 burnout, posttraumatic stress, compassion fatigue and moral distress using standardised measures[2 8]. Whilst this research is important[3 9] it does not give a 'full' picture of healthcare professionals' experiences at work, e.g. how their burnout makes them feel or how they perceive it impacts on their ability to perform. Furthermore, research to

[1] The authors note that PIC and PCC are used interchangeably, for this study PCC is used to encompass high dependency units (HDU), and transport teams.

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date has focused on measuring the size of the problem rather than looking toward finding solutions with little research solution focused. [10]

The paucity of research focusing on medical consultants working in PCC means we know very little about this important group. This study aimed to explore UK PCC consultants' experiences of burnout and compassion fatigue with a view to understanding how their wellbeing may be improved.

Method

Design

This study adopted an exploratory, qualitative design to elicit responses to questions around participants' experiences of burnout, compassion fatigue, and wellbeing. 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.[11 12] The consolidated criteria for reporting qualitative research (COREQ[13]) guidance was followed in the reporting of the study.

Sample

This study was set within paediatric critical care units in the UK. Eligible participants were consultants in PCC units and/or Transport teams in the UK.

Convenience and purposive sampling were adopted to ensure that all consultants at each UK PCC 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.

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Procedure

The study received ethical approval from Aston University Research Ethics Committee and permission was granted by the President of the Paediatric Critical Care Society to invite their members to participate. 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. This study formed part of one author's (SS) MSc award.

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 semi-structured interview. All interviews were conducted by an independent researcher (SS), who had no previous experience of PCC and was not connected to any of the participating units, Trust or Health Boards. The interview schedule was informed by existing literature as well as discussions with an advanced nurse practitioner (RM), a medical consultant (PD), and a health psychologist (RS). SS was trained in conducting qualitative interviews by IB and RS to ensure that appropriate questioning, intonation, and prompts used were appropriate.

Following completion of the interview, participants were sent a debrief form which signposted them to organisations that offer additional support to improve healthcare professional wellbeing. 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' anonymity. Each participant was sent their anonymized transcript within two weeks of taking part in the study to enable them to omit and/or change information in the transcript to ensure they were happy for it to be used as part

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of the analysis of this study. Clinical colleagues in the research team did not have access to the transcripts to further protect participants' anonymity.

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

Demographic data

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

Thematic data analysis

Data was analysed using inductive thematic analysis which offers a flexible process enabling the exploration of rich data efficiently.[14] An inductive approach was taken meaning theme generation was led by the participants' accounts rather than any predetermined assumptions. A six-step approach to analysing the data was used as outlined below using Braun and Clarke's methodology[14]. SS and IB collected the data and led the analysis of the raw data; both were independent of any PCC units. All the 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).

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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 completion of this study, the research team followed Yardley's[15] 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. As above, we also consulted COREQ[13] to ensure the reporting of the study was appropriate.

It is acknowledged that each author's experiences inevitably shape data anlsysis.[16] 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 twenty-five years' experience of working in the National Health Service (NHS). PD is a male medical consultant in PCC with over twenty years of 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 twenty years' experience of conducting applied clinical research with a range of populations in primary and secondary care and in the community.

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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 report.

Results

Eleven PCC consultants took part in this study from April to June 2021 All 11 consultants who participated work in PCC units that are consultant led services with on call commitments. Individuals ranged in age from 42 to 56. Of these 11 individuals, five were male and six were female. The years of experience as a PCC consultant ranged from 4 to 23 years. Participants were recruited from 9 UK-based PCC units.

The nine PCC units that these participants were varied in terms of size and patient cohort. They included both cardiac intensive care units, general intensive care units and mixed units. specialities. Each interview lasted between thirty minutes and one hour and 30 minutes.

Thematic analysis generated eight themes representing consultants' experiences of burnout, compassion fatigue, and wellbeing (see Table 1).

Themes
1. Positive & negative impact of working during COVID 19
2. Job satisfaction & scrutiny in the unique environment of PCC
3. The value of supporting an ageing workforce through modified shift

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work
4. What support and recognition are needed from the Trust/Board?
5. Successful coping strategies are personal & adaptive
6. Importance of civility & staff retention for good teamwork
7. Recognition of the cumulative effect of stressors in and out of work
8. Recommendations identified for future solutions to enhance wellbeing

Table 1: Themes identified

Theme 1: Positive and negative impact of working during COVID 19

Within this theme participants were able to clearly identify unexpected positive consequences of the COVID-19 pandemic. Additionally, participants reflected on the negative repercussions of COVID-19. The positive reflections included the time that it gave them with their own immediate families, for example. The negative consequences of the pandemic included the added pressures of working in intensive care when wearing personal protective equipment (PPE) and the anxiety created through the uncertainty of the wider context of the pandemic.

"Yeah, it made me much happier…. because like you didn't have to go to work anymore, all of a sudden, instead of like dragging yourself in for pointless rubbish, you know meetings or whatever, all of a sudden 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]

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"There was a lot of uncertainty about how you would feel if your loved one was being cared for by a PICU intensivist who didn't know what they were doing versus an adult intensivist. So, we might be you know overstepping our remits in terms of our training and such." [Participant 1003]

"We used to meet in person, and we used to have our consultant meetings at each other's houses and all meet up and have dinner and chat through things and again that not has happened since March a year ago." [Participant 1009]

Theme 2: Job satisfaction & scrutiny in the unique environment of PCC

Participants recognised that working in PCC is an environment that brings its own challenges. Participants were also able to articulate 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 you know the… the hardest times of their lives and making a difference to them. Erm… I think that's probably the most satisfying thing" [Participant 1003]

"Erm, when our patients get better is the truthful answer [gives me the most satisfaction]. When a patient is really sick, and you feel like you have made a difference…. 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.

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Individuals also reflected that working in PCC involves working under the scrutiny of the public. Individuals noted that the expectations society has are so great that often the media do not appreciate the good work that PCC units offer to their patients. Furthermore, participants were able to clearly express that being a PCC consultant requires the scrutiny of one's actions not only by society and the media but also in court.

"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%. Um and we have had fewer and fewer of fit and well children. Um so that is challenging." [Participant 1002]

"As clinicians we are slightly hamstrung because we have patient confidentiality... 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]

"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…That is the bit 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]

Theme 3: The value of supporting an ageing workforce through modified shift work

Individuals recognised that working as a PCC consultant is harder as one ages and that modifications are needed. Individuals furthermore explored that the environment and one's own perception of PCC changes the older one gets; individuals were able to state that the ability to experience compassion increases with age. Additionally, participants voiced a concern that as one gets older it becomes harder to work at the pace that one was doing when

they were a newly qualified consultant. Individuals reflected on their desire to work in a different way to when they were younger.

"I think that's something that needs to be looked at, such as session 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]

"I think at 55 onwards there should be a deliberate process to tapering services, I think it's a combination of tapering on-call and then coming off it, maybe at 58……I don't think they [the NHS Trust/Board] know how to manage the older senior colleagues [in PCC]." [Participant 1014]

Theme 4: What support and recognition are needed from the Trust/Board?

The eleven participants highlighted that the support that their respective Health Trusts/Boards provide is not adequate. Participants reflected on the creative wellbeing opportunities offered to staff such as the provision of yoga sessions. Staff also reflected that these are not always accessible to the PCC consultants due to the location and timing of the wellbeing sessions.

"Of course, HR provide yoga on a [week day] or whatever they like 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]

"Putting on a yoga class is probably not what people need, what they need is people…. 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? What we get instead is oh well why have all these people died, haha you know, and you know if you looked at this group of patients, they were going to die" [Participant 1003]

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Participants felt that there was a lack of understanding between their Trust/Board and the wellbeing of an individual working in PCC. Staff commented that what is offered by the Trust/Board is often a quick solution that is not sustainable.

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

Some participants reflected that perhaps Trusts/Boards were not providing the appropriate support and options with regard to staff wellbeing particularly to those staff working in PCC.

"The [Trust/Board] look for all the kind of shiny gimmicky ways to just show that they care, without actually addressing the problem and, so then you'll have [Trust/Board]-wide initiatives being placed to, erm, for example, 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]

Theme 5: Successful coping strategies are personal & adaptive

Despite the highly pressured environment in which they work, participants were able to voice their own informal strategies to ensure that they maintain good wellbeing. These included the use of humour, exercise, having an out of work routine and family to talk to you. Having a personal faith was also valued by some participants.

"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,

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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]

"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 buts it's still quite fun and haha I have grown asparagus this year…" [Participant 1009]

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]

Theme 6: Importance of civility & staff retention for good teamwork

Working on PCC, staff recognised the important and positive impact of good teamwork. This teamwork enables staff to support one another through the covering of shifts. Staff also reflected that working as a team can be hard when you are managing a team that includes a range of healthcare professionals.

"[We're a] big group of consultants and good group of nursing team and we are very honest and open about that [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]

"Also, the teamwork in the unit. 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]

Staff also reflected that working as a team can be hard when you are managing a team that includes a range of healthcare professionals. Individuals also articulated problems that can arise from having a team that is short staffed.

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"It's not the patients it's not particularly the nurses or even though they can be a little bit of a pain in the neck sometimes, erm it's your consultant colleagues trying to… trying to manage them is usually the most, worst part of your life." [Participant 1005]

"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]

So, at the moment we are very short staffed. We have er… first on call that covers intensive care erm, so it's a 1 in 7 rota. But there is one gap in that rota, so we are already picking that up as a locum for example, this month I would do 10 nights, and on calls, erm, and next month I am doing 8. So, that's on top of your already heavy working week. You're already existing on calls and you're going to have to pick up, erm 3 or 4 on calls a month, over that so it just grinds you down." [Participant 1006]

Participants reflected and explored the impact that nurse retention has on a PCC consultants' own wellbeing. This indicates that nurse retention has an impact on other healthcare professionals' wellbeing.

"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 and train somebody newer and we try and to get to know somebody new, teams that worked well before don't work as well for a little while….and everything 's just like moving through treacle" [Participant 1003]

Theme 7: Recognition of the cumulative effect of stressors in and out of work

Individuals reflected on the difficulties that can emerge when an individual's work life is hard as well as their life outside of PCC. This combination of stressors compromises an

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357 individual's wellbeing. Individuals voiced that it is often difficult to know what is going on in
358 someone's life outside of work.

359 *"It's like when you're a boxer and you're in the boxing ring and the guys punching your face*
360 *and that's work, and you get to the end of the round, and you go home. And when you get to*
361 *your corner, your trainer turns around and starts punching you in the face as well then it's*
362 *life isn't very fair at those points…And you can see it all starts to fall apart a little bit and*
363 *you know….know much pressure you are under at home at the moment it would add a huge*
364 *amount to the overall picture"* [Participant 1001]

365 ***Theme 8: Recommendations identified for future solutions to enhance***
366 ***wellbeing***

367 Participants were able to consider what solutions they perceived as needing to be
368 implemented when considering the wellbeing of consultants in PCC. Individuals reflected
369 that there needs to be a change in the rota, they need access to ad hoc psychological support
370 on the unit, as and when needs arise. Individuals reflected on the role that the wider
371 organisation should play in ensuring that they are kept well. Consultants expressed the need
372 for clear and accessible wellbeing interventions and support systems from the wider
373 Trust/Board to be available to them.

374 *A rota that doesn't include a 24-hour shift where potentially I could be awake for the entire*
375 *time and you could kill someone at hour 23, and you'd feel bad about that…"* [Participant
376 1005]

377 *"Just ease, ease of access having them [the psychologists on the unit] and not having to*
378 *phone somebody and taking that step of booking in to speak to somebody"* [Participant 1004]

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"*The next project is to try and reach to the grumpy old sods like me and try and get them to participate personally rather than just being involved in processes to make sure that everyone else is supported and happy but actually join in so that you can miss out the blind spots"* [Participants 1001]

"*Self-referral to occupational health without the referral of a manager that would be important"* [Participant 1003]

Discussion

The findings from this unique study provide a clear description of consultants' experiences of working in PCC, focusing especially on how their wellbeing can be challenged by their work. The challenges identified are consistent with the existing literature, for example it is widely documented that working shifts becomes increasingly harder the older one gets[17-21]. It is of particular interest to note that participants were able to pinpoint how this could be improved, with participants suggesting not having 24-hour shifts and better planning for consultants as they age. Regardless of their age, consultants considered that they do not see themselves in this role 'forever' with some participants considering alternative options such as more time spent in education or research. This is not a surprise, and these findings support the recommendations outlined by the British Medical Association [22]. These findings also support those from previous surveys conducted by Royal College of Physicians that illustrated that shift patterns were a factor in consultants' decisions to retire early [23 24]. This finding suggests that greater consideration should continue to be paid to the impact that shift work and taking 'on call' shifts can have on a staff member's wellbeing. Individual Trusts and Hospital Boards should consider alternative options for consultants as they age, to ensure that their expertise is valued but that their wellbeing is not compromised because of their age. This data

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402 indicates that at the age of fifty-five, nights become more challenging with greater recovery
403 time needed post nights.
404
405 Working in COVID 19 has and continues to have a huge impact on healthcare professionals'
406 wellbeing[25-29]. For many healthcare professionals globally, COVID 19 brought uncertainty
407 and anxiety. Nevertheless, as well as the negative aspects of the pandemic, participants in this
408 study articulated some positive factors that were a result of the COVID 19 pandemic, for
409 example being able to attend meetings from home and not travelling into work when not
410 working clinically. Participants therefore were able to reflect on the pandemic to date in a
411 balanced manner, which is especially powerful because these interviews were conducted
412 during the pandemic.
413
414 It is widely evident that working in PCC brings its own challenges that are perhaps not
415 evident in other areas of healthcare. Participants in this study were able to consider what
416 gives them satisfaction as a PCC consultant, for some that included teaching their peers and
417 for others that was supporting the patients and their families. It is pertinent to note that all
418 participants were able to answer this question without hesitation, suggesting that despite the
419 stressful environment, these individuals' enthusiasm and the satisfaction gained from the job
420 is what enables them to continue to work in PCC.
421
422 The importance of having a good support network outside of work was deemed to be integral
423 to ensuring optimal wellbeing is maintained. For some this included gardening, for others it
424 meant spending time with their families and for others this was provided by their own
425 personal faith belief system. It is widely evidenced that having good support networks and
426 recreational activities outside of work can ensure good wellbeing is maintained[30 31]. Recent

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research surrounding social prescribing has identified benefits of 'prescribing' social activities and local groups in the alleviation of symptoms associated with depression[32 33].

Working in PCC requires one to work as part of a team[34]. For the participants in this study, they were able to clearly articulate the importance of the wider team in PCC[35-37]. Consultants were able to identify that the nursing team is crucial and the impact that having a nursing workforce that is 'unstable' and changeable can have on their own wellbeing. However, individuals also identified that the support for the team can also have an impact on their wellbeing as it can result in feelings of not wanting to cause more work for colleagues. This then results in individuals taking on extra shifts or not taking a break from work when perhaps they need the opportunity to be away from work. This sense of duty and care for one another is highly evidenced in occupations [38 39], 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 were able to vocalise without being prompted that the support that is offered by the wider NHS Trusts and Health Boards is insufficient and not appropriate for their needs. Staff stated that the services they offer are inaccessible due to shift patterns and needing to be on the unit. Participants were also aware of the efforts that their respective Trusts and Boards put into wellbeing but highlighted that perhaps outside of PCC, the work that PCC does remains unclear meaning the services they provide are not appropriate. Consultants want more and need more than sign posting to organisations. 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.

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452 One of the limitations of this study is the small sample size, and not every UK PCC unit was
453 represented. However, findings resonated with members of PCC Society and other research
454 in UK PCC units. Further work in UK and overseas PCC units is required to confirm our
455 findings. A key strength of this study is that the individuals who participated ranged in their
456 experience as a PCC consultant and this ensured the sample was representative across levels
457 of consultant expertise.

458

459 **Clinical Implications**

460 The problem of burnout among doctors has been recognised by the UK government [40] and the
461 General Medical Council (GMC) and the issue of poor wellbeing has been prioritised in the
462 NHS Health and Wellbeing Framework[41]. Despite this acknowledgement of the problem,
463 there remains very little research taking a solution-focused approach to provide evidence-
464 based interventions to support the wellbeing of staff generally, and nothing to date which
465 focuses on PCC consultants. Our research has indicated that current wellbeing offerings from
466 Health Trusts/Boards do not meet the needs of consultants. Furthermore, they are designed to
467 help support staff in crisis rather than prevent those crises from happening.

468

469 Individual and systemic interventions are required to develop resilient *systems* within which
470 *individuals* feel psychologically secure to express their concerns and vulnerabilities and are
471 supported to improve their wellbeing. The GMC report[41] and this study supports the
472 psychological theory of self-determination[42] as a way of understanding the basic
473 psychological elements of wellbeing, i.e. what is required for consultants to experience
474 wellbeing at work. These are: *autonomy*, *belonging* and *competence*. In line with the GMC
475 report, this study identified that consultants need to be felt heard, to be given a voice to
476 express what would improve their wellbeing (*autonomy*); teamwork and a nurturing culture

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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 Health Trusts/Boards 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 wellbeing is not compromised, whilst also not compromising the care provided to patients. Trusts/Boards and PCC units need to work together to ensure that wellbeing opportunities are accessible and available to all staff regardless of the shift patterns they work. While consultants recognised the need to improve their wellbeing, 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 wellbeing, where consultants are invited to discuss their experiences of burnout 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 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 wellbeing. Psychological measures will be required to determine the impact of those interventions on staff burnout and wellbeing. Furthermore, the impact of improved PCC consultant wellbeing needs to be measured in terms of staff retention, sickness, and numbers leaving the speciality and the profession [23 24].

Conclusion

To conclude, the findings from this study clearly indicate that consultants working in PCC face a number of challenges to their wellbeing. Current offerings to improve wellbeing do not meet consultants' needs. There are some identifiable factors which need to be tackled, e.g. 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 wellbeing need to be developed and systematically evaluated to determine how to improve consultant wellbeing and reduce the levels of burnout and compassion fatigue among PCC consultants.

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Contributor statement

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

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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.

Competing interests

There are no conflicts of interest.

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Data sharing statement

All data that is available is included in article.

Ethics agreement statement

This study involves human participants and was approved by the Aston University Research Ethics Committee (ref: Psych 200248747).

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COREQ (COnsolidated Criteria for Reporting Qualitative research) Checklist

Developed from: *Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International journal for quality in health care, 19(6), 349-357.*

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.

Topic	**Item Number**	**Guide Questions/Descriptions**	**Comments**	**Page Number reported on**
Domain 1: Research team and reflexivity				
Personal characteristics				
Interviewer/facilitators	1	Which author/s conducted the interview or focus group?	SS conducted the interviews	4
Credentials	2	What were the researchers' credentials? E.g., PhD, MSc	SS is an MSc student, RS is a health psychologist, RM is an advanced nurse practitioner, PD is a medical consultant in critical care and IB is a psychology researcher with a PhD and MSc.	4, 5,6
Occupation	3	What was their occupation at the time of the study?	SS is an MSc student, RS is a health psychologist, RM is an advanced nurse practitioner, PD is a medical consultant in critical care and IB is a psychology researcher with a PhD and MSc.	4,5, 6
Gender	4	Was the researcher male or female?	PD is male, IB, SS, RM, and RS are female	6
Experience and training	5	What experience or training did the researcher have?	SS who conducted the interviews received appropriate training in conducting qualitative interviews through RS and IB	4
Relationship with participants				
Relationship established	6	Was a relationship established prior to study commencement?	SS established rapport and potential participants through initial consent electronically and information process prior to individuals taking part in the interview	4

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Participant knowledge of the interviewer	7	What did the participants know about the researcher? E.g., personal goals, reasons for doing the study	The participants were all aware that SS was a MSc student at Aston University and this study was part of this MSc.	4
Interviewer characteristics	8	What characteristics were reported about the interviewer/facililtor?	SS had no experience in conducting research on PCC	4
Domain 2: Study design				
Theoretical framework				
Methodological orientations and theory	9	What methodological orientations was stated to underpin the study?	Inductive thematic analysis was used to examine the data	5
Participant selection				
Sampling	10	How were participants selected? E.g., purposive, convenience, consecutive, snowball	Convenience and purposive sampling	3
Method of approach	11	How were participants approached? E.g., face to face, telephone, mail	Online on social media, and through word of mouth	4
Sample size	12	How many participants?	11	7
Nonparticipation	13	How many people refused to participate or dropped out?	N/A	n/a
Setting				
Setting of data collection	14	Where was the data collected? E.g., home, clinic, workplace	Data was collected over video technology and the participants took part from their place of work and their homes.	4
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	In all interviews only the participants were present. For those conducted in place of work there may have been people present in the room, but all participants used headphones if this occurred therefore only participants could hear the interviewer.	4
Descriptive of sample	16	What are the important characteristics of the sample?	All participants had to be currently working as consultant in a PCC unit within the U.K and had to be willing to take part in an online interview	3
Data collection				
Interview guide	17	Were questions, prompts, guides provided by the authors?	The topic guide was constructed by PD, RM , RS, SS based on their own clinical experiences and on the current research field.	4
Repeat interviews	18	Were repeat interviews carried out?	N/A	n/a

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Audio/visual recording	19	Did the research use audio or visual recording to collect data?	Yes, audio and visual platforms were used to collect data.	4
Field notes	20	Were field notes made during and/after the interview or focus group?		
Duration	21	What was the duration of the interviews?	Thirty minutes to 1hr 30 minutes	7
Data saturation	22	Was data saturation discussed?	Yes, and data collection finished once data saturation had been reached	4
Transcript returned	23	Were transcripts returned to participants for comments and correction?	Yes, all transcripts where participants agreed to see their transcripts, were returned to participants prior to data analysis	4
Domain 3: analysis and findings				
Data analysis				
Number of data coders	24	How many data coded the data?	Initially IB coded the data, RM, PD, RS, SS commented on the analysis as the different stages independently.	5
Description of the coding tree	25	Did authors provide a description of the coding tree?	The authors did not provide a conceptual description of the coding tree.	n/a
Derivation of themes	26	Were themes identified in advance or derived from the data?	Themes, as is the framework, for conducting inductive thematic analysis were derived from the data solely.	5,6
Software	27	What software if applicable was used to manage the data?	IB used NVivo to manage the data	5
Participant checking	28	Did participants provide feedback on the findings?	No.	n/a
Reporting				
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? E.g., a participant number?	Yes, participant quotes were used to illustrate the themes that were found in the data. This is a crucial part of thematic analysis.	8- 16
Data and findings consistent	30	Was there consistency between the data presented and the findings?	Yes, and this was achieved by ensuring that each theme was illustrated with a relvant quotation. Throughout the study in the results section, quotations from a number of participants are present	8-16
Clarity of major themes	31	Were major themes clearly presented in the findings?	These are clearly highlighted in a table but	8-16

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			also depictured within the text.	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	The results section and discussion focus on the eight major themes. There are no minor themes as the major themes illustrate the themes that occurred within these.	8-16

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A qualitative study exploring the wellbeing experiences of Paediatric Critical Care consultants working in the UK during the COVID-19 pandemic

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A qualitative study exploring the wellbeing experiences of Paediatric Critical Care consultants working in the UK during the COVID-19 pandemic

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Abstract

Objectives: The aim of this study was to examine the wellbeing experiences of consultants working in Paediatric Critical Care (PCC) settings within the United Kingdom (UK).
Design: Qualitative design
Setting: Paediatric critical care
Participants: 11 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 semi-structured questions were used to elicit information about participants' experiences of compassion fatigue and burnout, and their wellbeing more broadly. Interviews were audio recorded and transcribed.
Findings: Thematic analysis identified six themes. These were: i) *positive and negative impact of working during COVID-19,* ii) *job satisfaction and public scrutiny in the unique environment of PCC*, iii) *supporting the workforce through modified shift work,* iv) *perceptions of support and recognition offered from the hospital management,* v) *successful coping strategies are personal and adaptive*, and vi) *importance of civility and good teamwork*
Conclusion: We have provided insight into PCC consultants' wellbeing experiences. Increasing difficulties with on-call and night shifts as one ages were reported. Action on shift patterns is needed to protect and retain this expert workforce. Consultants stated that hospital management teams could do more to provide accessible wellbeing interventions, tailored to their needs. Where funded PCC psychology posts existed, they were greatly appreciated. Our work corroborates the recent General Medical Council report highlighting doctors' core needs for wellbeing: autonomy, belonging, competence. Burnout is a long-term problem, requiring sustainable solutions. Evidence-based interventions to improve consultants' wellbeing need to be evaluated to determine how we can best support this PCC workforce.

Key words: intensive care units, pediatric; consultants; burnout, professional; COVID-19; qualitative research

Strengths and Limitations

- A key strength to this research is its exploratory design. With very little previous research describing the quality of consultants' experiences of burnout and compassion fatigue, this study offers unique insight.
- Individual interviews were conducted with consultants, which were led by their own experiences and what mattered to them, rather than being led by predetermined 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 therefore in this study, not all units were represented. Further research in other units and across the international field of paediatric critical care would help strengthen the findings.

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Introduction

Working in paediatric critical care[1] (PCC) is stimulating and rewarding however healthcare professionals working in PCC are exposed daily to traumatic events and stressful situations. In addition, the workload within PCC is often consultant led and consultant delivered with a significant on call requirement. Working in PCC can be stressful due to the intensity of the work, emotional and moral distress.[1 2] It is unsurprising therefore that research globally has shown that individuals working in PCC experience high rates of burnout, compassion fatigue and symptoms associations with posttraumatic stress disorder (PTSD)[3-5]. Continual exposure to patient and family distress can be emotionally taxing for healthcare professionals working in PCC.

In recent years prior to COVID-19 pandemic there has been a surge of evidence highlighting that poor wellbeing amongst staff working in PCC is a persistent problem. The literature to date has largely focused on nursing staff and trainee medical professionals.[6 7] The COVID-19 pandemic has unsurprisingly had wide reaching impact on the health and wellbeing of healthcare professionals due to the additional stressors and uncertainties experienced. [8-12] Furthermore within the current research field there is a lack of research that is solution focused. This research is compelling and highlights the issues that these healthcare professionals face working in PCC. There is 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 burnout, posttraumatic stress, compassion fatigue and moral distress using standardised measures[2 13].

[1] The authors note that PIC and PCC are used interchangeably, for this study PCC is used to encompass high dependency units (HDU), and transport teams.

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Whilst this research is important[3 14] it does not give a 'full' picture of healthcare professionals' experiences at work, e.g. how their burnout 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 looking toward finding solutions with little research solution focused. [15]

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 burnout and compassion fatigue with a view to understanding how their wellbeing may be improved.

The research questions were:

1. What challenges to their workplace wellbeing do PCC consultants experience?
2. What factors support PCC consultants' wellbeing at work?

Method

Design

This study adopted an exploratory, qualitative design to elicit responses to questions around participants' experiences of burnout, compassion fatigue, and wellbeing. 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.[16 17] The consolidated criteria for reporting qualitative research (COREQ[18]) guidance was followed in the reporting of the study.

Sample

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This study was set within paediatric critical care units in the UK. Eligible participants were consultants in PCC units and/or Transport teams in the UK.

Convenience and purposive sampling were adopted to ensure that all consultants at each UK PCC 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 received ethical approval from Aston University Research Ethics Committee and permission was granted by the President of the Paediatric Critical Care Society to invite their members to participate. 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. This study formed part of one author's (SS) MSc.

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 semi-structured interview. All interviews were conducted by an independent researcher (SS), who had no previous experience of PCC and was not connected to any of the participating units, Trust 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 was semi structured in with a set of topics and questions but was conducted in a manner that allowed participants to clearly articulate their thoughts and experiences. Prior to being sued the interview guide was shown and discussed with colleagues working in critical care to ensure it flowed and the topics were appropriate. SS was trained in conducting qualitative interviews

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by IB and RS to ensure that appropriate questioning, intonation, and prompts used were appropriate.

Following completion of the interview, participants were sent a debrief form which signposted them to organisations that offer additional support to improve healthcare professional wellbeing. 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' anonymity. Each participant was sent their anonymized transcript within two weeks of taking part in the study to enable them to omit and/or change information in the transcript to ensure they were happy for it to be used as part of the analysis of this study. Clinical colleagues in the research team did not have access to the transcripts to further protect participants' anonymity.

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

Each interview lasted between thirty minutes and one hour and 30 minutes.

Demographic data

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

Thematic data analysis

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Data was analysed using inductive thematic analysis which offers a flexible process enabling the exploration of rich data efficiently.[19] An inductive approach was taken meaning theme generation was led by the participants' accounts rather than any predetermined assumptions. A six-step approach to analysing the data was used as outlined below using Braun and Clarke's methodology[19]. SS and IB collected the data and led the analysis of the raw data; both were independent of any PCC units. All the 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 completion of this study, the research team followed Yardley's[20] 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.

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It is acknowledged that each author's experiences inevitably shape data analysis.[21] 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 twenty-five years' experience of working in the National Health Service (NHS). PD is a male medical consultant in PCC with over thirteen 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 twenty 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 report.

Findings

Eleven PCC consultants took part in this study from April to June 2021. All 11 consultants who participated work in PCC units that are consultant led services with on call commitments. Individuals ranged in age from 42 to 56. Of these 11 individuals, five were

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male and six were female. The years of experience as a PCC consultant ranged from 4 to 23 years. Participants were recruited from 9 UK-based PCC units.

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

Thematic analysis generated six themes representing consultants' experiences of burnout, compassion fatigue, and wellbeing (see Table 1). Despite working in a highly stimulated and challenging environment all PCC consultants who took part where able to reflect on what solutions need to be implemented to promote consultant wellbeing.

Table 1: Themes identified

Themes
1. Positive & negative impact of working during COVID-19
2. Job satisfaction & 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 & adaptive
6. Importance of civility & staff retention for good teamwork

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.

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"at the very beginning where there was a great unknown, and we were all watching what was coming…there was a lot of anxiety and a lot of fear through that, erm 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 wellbeing.

"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. And they don't do it a lot, but that has definitely impacted. 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]

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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 Intensive Care Units (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, 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…. because like you didn't have to go to work anymore, all of a sudden, instead of like dragging yourself in for pointless rubbish, you know meetings or whatever, all of a sudden 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,

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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 & 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 experiences of moral distress. Consultants shared their experiences of moral distress, which 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. Some PCC consultants in this study felt the weight of public expectation due to increased media coverage, and thus, scrutiny of the care they provide.

I think society has changed on all the sort of you know the very, widely publicised cases that have been in the news and things so it's sort of become doctors versus parents. And it's awful because well you actually want the same thing. We all want the right thing for the child, and it might not be you know immediate. But you know nobody wants who lose a child and 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 and, and you know for that child and that family ..and I have that every week. It's not something that happens once in a blue

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moon that happens every week sometimes, sometimes three times a week. on 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…That is the bit 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%. Um and we have had fewer and fewer of fit and well children. Um 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, whilst 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.

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"Definitely spending time with families, you know supporting families through you know the… 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. 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 2 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 then making a mistake, knowing that you made that mistake because you were tired not because you didn't have the knowledge or you didn't realise what was going on. You know we all make mistakes all the time, um but some mistakes can be prevented, and some mistakes can't be prevented, and 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 work at the pace that one was doing when they were newly qualified. Individuals reflected on their desire to work in a different way to when they were younger.

"I think that's something that needs to be looked at, such as session 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 supported provided by their respective management teams.

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Theme 4: Perceptions of support and recognition offered from hospital management

All consultants in this study perceived that wellbeing support provided by their hospital management teams was inadequate. Participants reflected on the creative wellbeing 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] or whatever they like 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 wellbeing 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 wellbeing support provided were fit for purpose.

> *"Putting on a yoga class is probably not what people need, what they need is people…. 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? What we get instead is oh well why have all these people died, haha you know, and you know if you looked at this group of patients, they were going to die"* [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 they 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 wellbeing 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 extracts 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 and, so then you'll have [Trust/Board]-wide initiatives being placed to, erm, for example, 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 was is required by PCC consultants from hospital management is recognition for their services during the pandemic and sustainable wellbeing support that is appropriate to them and accessible to those working on clinical shifts.

Theme 5: Successful coping strategies are personal & adaptive

As indicated in the previous theme, PCC consultants in this study wanted approaches to improve their wellbeing that were appropriate and accessible to them. Many were able to describe their own informal strategies to ensure that they maintain good wellbeing. 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.

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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 buts 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 wellbeing, both while at work and when 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 wellbeing 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

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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….how much pressure you are under at home at the moment it would add a huge amount to the overall picture" [Participant 1001]

This theme has demonstrated the importance of adaptive strategies for managing wellbeing 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, wellbeing 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 & 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 under looking after each other and having a chat with other people, where you find out what 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.

"the teamwork in the unit. 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]

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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 and train somebody newer and we try and to get to know somebody new, teams that worked well before don't work as well for a little while….and everything 's just 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 even though consultants in this study spoke of how they feel 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. Burnout was raised in this discussion as something experienced due to the challenges in the workforce, but was clearly something that staff in this consultant's workplace 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

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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 wellbeing and that of others working in PCC. They have also presented the positive factors which can help to create a wellbeing-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 wellbeing 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 wellbeing activities, they wanted more sustainable psychological support, e.g. from psychologists, to be available, ideally without need for referral.

Discussion

The findings from this unique study provide a clear description of consultants' experiences of working in PCC, focusing especially on how their wellbeing can be challenged by their work. One such challenge highlighted in this study is the possibility for consultants to experience compassion fatigue due to workload pressures and burnout. There is little evidence on the

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nature of compassion fatigue or how we might remedy this, as found by Sinclair and colleagues in a recent review which recommended further examination and re-conceptualisation of the concept[22].

The challenges to wellbeing identified in this study are consistent with the existing literature, for example it is widely documented that working shifts becomes increasingly harder the older one gets[23-27]. It is of particular interest to note that participants were able to pinpoint how this could be improved, with participants suggesting not having 24-hour shifts and better planning for consultants as they age. Regardless of their age, consultants considered that they do not see themselves in this role 'forever' with some participants considering alternative options such as more time spent in education or research. This is not a surprise, and these findings support the recommendations outlined by the British Medical Association: [28] which include (but are not limited to): i) ensuring staff are able to change parts of their role through job planning; ii) consultants are able to work flexibly and where possible remotely; iii) consultants who are going through the menopause should be adequately supported; and iv) consultants should feel supported and included in a workplace where mental and physical wellbeing are prioritised. These findings also support those from previous surveys conducted by Royal College of Physicians that illustrated that shift patterns were a factor in consultants' decisions to retire early [29 30]. This finding suggests that greater consideration should continue to be paid to the impact that shift work and taking 'on call' shifts can have on a staff member's wellbeing. Individual Trusts and Hospital Boards should consider alternative options for consultants as they age, to ensure that their expertise is valued but that their wellbeing is not compromised because of their age. This data indicates that at the age of fifty-five, nights become more challenging with greater recovery time needed post nights.

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Working in COVID-19 has and continues to have a huge impact on healthcare professionals' wellbeing[31-35]. For many healthcare professionals globally, COVID-19 brought uncertainty and anxiety. Nevertheless, as well as the negative aspects of the pandemic, participants in this study articulated some positive factors that were a result of the COVID-19 pandemic, for example being able to attend meetings from home and not travelling into work when not working clinically. Participants therefore were able to reflect on the pandemic to date 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 its own challenges that are perhaps not evident in other areas of healthcare. Participants in this study were able to consider what gives them satisfaction as a PCC consultant, for some that included teaching their peers and for others that was supporting the patients and their families. It is pertinent to note that all participants were able to answer this question without hesitation, 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 wellbeing 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 wellbeing is maintained[36 37]. Recent research surrounding social prescribing has identified benefits of 'prescribing' social activities and local groups in the alleviation of symptoms associated with depression[38 39].

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Working in PCC requires one to work as part of a team[40]. For the participants in this study, they were able to clearly articulate the importance of the wider team in PCC[41-43]. Consultants were able to identify that the nursing team is crucial and the impact that having a nursing workforce that is 'unstable' and changeable can have on their own wellbeing. However, individuals also identified that the support for the team can also have an impact on their wellbeing as it can result in feelings of not wanting to cause more work for colleagues. This then results in individuals taking on extra shifts or not taking a break from work when perhaps they need the opportunity to be away from work. This sense of duty and care for one another is highly evidenced in occupations [44 45], 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 were able to vocalise without being prompted that the support that is offered by the wider NHS Trusts and Health Boards is insufficient and not appropriate for their needs. Staff stated that the services they offer are inaccessible due to shift patterns and needing to be on the unit. Participants were also aware of the efforts that their respective Trusts and Boards put into wellbeing but highlighted that perhaps outside of PCC, the work that PCC does remains unclear meaning the services they provide are not appropriate. Consultants want more and need more than sign posting to organisations. 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.

One of the limitations of this study is the small sample size, and not every UK PCC unit was represented. However, findings resonated with members of PCC Society and other research in UK PCC units. Further work in UK and overseas PCC units is required to confirm our

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findings. A key strength of this study is that the individuals who participated ranged in their experience as a PCC consultant and this ensured the sample was representative across levels of consultant expertise.

Clinical Implications

The problem of burnout among doctors has been recognised by the UK government [46] and the General Medical Council (GMC) and the issue of poor wellbeing has been prioritised in the NHS Health and Wellbeing Framework[47]. Despite this acknowledgement of the problem, there remains very little research taking a solution-focused approach to provide evidence-based interventions to support the wellbeing of staff generally, and nothing to date which focuses on PCC consultants. Our research has indicated that current wellbeing 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 wellbeing. The GMC report[47] and this study supports the psychological theory of self-determination[48] as a way of understanding the basic psychological elements of wellbeing, i.e. what is required for consultants to experience wellbeing 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 wellbeing (*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*).

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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 wellbeing is not compromised, whilst also not compromising the care provided to patients. Hospital management teams and PCC units need to work together to ensure that wellbeing opportunities are accessible and available to all staff regardless of the shift patterns they work. While consultants recognised the need to improve their wellbeing, 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 wellbeing, where consultants are invited to discuss their experiences of burnout 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 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 wellbeing. Psychological measures will be required to

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determine the impact of those interventions on staff burnout and wellbeing. Furthermore, the impact of improved PCC consultant wellbeing needs to be measured in terms of staff retention, sickness, and numbers leaving the speciality and the profession [29 30].

Conclusion

To conclude, the findings from this study clearly indicate that consultants working in PCC face a number of challenges to their wellbeing. Current offerings to improve wellbeing do not meet consultants' needs. There are some identifiable factors which need to be tackled, e.g. 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 wellbeing need to be developed and systematically evaluated to determine how to improve consultant wellbeing and reduce the levels of burnout and compassion fatigue among PCC consultants.

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Contributor statement

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

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all other authors. IB led the writing of the manuscript with contributions from all other authors.

Competing interests

There are no conflicts of interest.

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Data sharing statement

All data that are available is included in article.

Ethics agreement statement

This study involves human participants and was approved by the Aston University Research Ethics Committee (ref: Psych 200248747).

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COREQ (COnsolidated Criteria for Reporting Qualitative research) Checklist

Developed from: *Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International journal for quality in health care, 19(6), 349-357.*

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.

Topic	Item Number	Guide Questions/Descriptions	Comments	Page Number reported on
Domain 1: Research team and reflexivity				
Personal characteristics				
Interviewer/facilitators	1	Which author/s conducted the interview or focus group?	SS conducted the interviews	4
Credentials	2	What were the researchers' credentials? E.g., PhD, MSc	SS is an MSc student, RS is a health psychologist, RM is an advanced nurse practitioner, PD is a medical consultant in critical care and IB is a psychology researcher with a PhD and MSc.	4, 5,6
Occupation	3	What was their occupation at the time of the study?	SS is an MSc student, RS is a health psychologist, RM is an advanced nurse practitioner, PD is a medical consultant in critical care and IB is a psychology researcher with a PhD and MSc.	4,5, 6
Gender	4	Was the researcher male or female?	PD is male, IB, SS, RM, and RS are female	6
Experience and training	5	What experience or training did the researcher have?	SS who conducted the interviews received appropriate training in conducting qualitative interviews through RS and IB	4
Relationship with participants				
Relationship established	6	Was a relationship established prior to study commencement?	SS established rapport and potential participants through initial consent electronically and information process prior to individuals taking part in the interview	4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

Participant knowledge of the interviewer	7	What did the participants know about the researcher? E.g., personal goals, reasons for doing the study	The participants were all aware that SS was a MSc student at Aston University and this study was part of this MSc.	4
Interviewer characteristics	8	What characteristics were reported about the interviewer/facililtor?	SS had no experience in conducting research on PCC	4
Domain 2: Study design				
Theoretical framework				
Methodological orientations and theory	9	What methodological orientations was stated to underpin the study?	Inductive thematic analysis was used to examine the data	5
Participant selection				
Sampling	10	How were participants selected? E.g., purposive, convenience, consecutive, snowball	Convenience and purposive sampling	3
Method of approach	11	How were participants approached? E.g., face to face, telephone, mail	Online on social media, and through word of mouth	4
Sample size	12	How many participants?	11	7
Nonparticipation	13	How many people refused to participate or dropped out?	N/A	n/a
Setting				
Setting of data collection	14	Where was the data collected? E.g., home, clinic, workplace	Data was collected over video technology and the participants took part from their place of work and their homes.	4
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	In all interviews only the participants were present. For those conducted in place of work there may have been people present in the room, but all participants used headphones if this occurred therefore only participants could hear the interviewer.	4
Descriptive of sample	16	What are the important characteristics of the sample?	All participants had to be currently working as consultant in a PCC unit within the U.K and had to be willing to take part in an online interview	3
Data collection				
Interview guide	17	Were questions, prompts, guides provided by the authors?	The topic guide was constructed by PD, RM , RS, SS based on their own clinical experiences and on the current research field.	4
Repeat interviews	18	Were repeat interviews carried out?	N/A	n/a

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Audio/visual recording	19	Did the research use audio or visual recording to collect data?	Yes, audio and visual platforms were used to collect data.	4
Field notes	20	Were field notes made during and/after the interview or focus group?		
Duration	21	What was the duration of the interviews?	Thirty minutes to 1hr 30 minutes	7
Data saturation	22	Was data saturation discussed?	Yes, and data collection finished once data saturation had been reached	4
Transcript returned	23	Were transcripts returned to participants for comments and correction?	Yes, all transcripts where participants agreed to see their transcripts, were returned to participants prior to data analysis	4
Domain 3: analysis and findings				
Data analysis				
Number of data coders	24	How many data coded the data?	Initially IB coded the data, RM, PD, RS, SS commented on the analysis as the different stages independently.	5
Description of the coding tree	25	Did authors provide a description of the coding tree?	The authors did not provide a conceptual description of the coding tree.	n/a
Derivation of themes	26	Were themes identified in advance or derived from the data?	Themes, as is the framework, for conducting inductive thematic analysis were derived from the data solely.	5,6
Software	27	What software if applicable was used to manage the data?	IB used NVivo to manage the data	5
Participant checking	28	Did participants provide feedback on the findings?	No.	n/a
Reporting				
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? E.g., a participant number?	Yes, participant quotes were used to illustrate the themes that were found in the data. This is a crucial part of thematic analysis.	8- 16
Data and findings consistent	30	Was there consistency between the data presented and the findings?	Yes, and this was achieved by ensuring that each theme was illustrated with a relvant quotation. Throughout the study in the results section, quotations from a number of participants are present	8-16
Clarity of major themes	31	Were major themes clearly presented in the findings?	These are clearly highlighted in a table but	8-16

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			also depictured within the text.	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	The results section and discussion focus on the eight major themes. There are no minor themes as the major themes illustrate the themes that occurred within these.	8-16

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A qualitative study exploring the wellbeing experiences of Paediatric Critical Care consultants working in the UK during the COVID-19 pandemic

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Abstract

Objectives: The aim of this study was to examine the wellbeing experiences of consultants working in Paediatric Critical Care (PCC) settings in the United Kingdom (UK) during the COVID-19 pandemic.
Design: Qualitative design using individual interviews and thematic analysis.
Setting: Paediatric critical care.
Participants: 11 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 semi-structured questions were used to elicit information about participants' experiences of workplace wellbeing. Interviews were audio recorded and transcribed.
Findings: Thematic analysis identified six themes and data saturation was reached. These were: i) *positive and negative impact of working during COVID-19,* ii) *job satisfaction and public scrutiny in the unique environment of PCC*, iii) *supporting the workforce through modified shift work,* iv) *perceptions of support and recognition offered from the hospital management,* v) *successful coping strategies are personal and adaptive*, and vi) *importance of civility and good teamwork*
Conclusion: Findings show that consultants' wellbeing is challenged in a number of ways and that the solutions to the problem of burnout 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 wellbeing: autonomy, belonging, competence. Burnout is a long-term problem, requiring sustainable solutions. Future research needs to develop and evaluate the effectiveness of evidence-based interventions to improve consultants' wellbeing. Trials of effectiveness need to present evidence that will persuade hospital management to invest in their consultants' wellbeing within the economic context of reduced budgets and limited PCC workforce.

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Key words: intensive care units, pediatric; consultants; burnout, professional; COVID-19; qualitative research

Strengths and Limitations

- A key strength to this research is its exploratory, interpretative design. With very little previous research describing the quality of consultants' experiences of burnout 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 predetermined 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.

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Introduction

Working in paediatric critical care[1] (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 wellbeing 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.[1 2] It is unsurprising therefore that research globally has shown that individuals working in PCC experience high rates of burnout, compassion fatigue and symptoms associations with posttraumatic stress disorder (PTSD)[3]. 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 wellbeing amongst PCC staff is a persistent problem. The literature to date has largely focused on nursing staff and trainee medical professionals.[4 5] The COVID-19 pandemic has unsurprisingly had wide reaching impact on the health and wellbeing of healthcare professionals due to the additional stressors and uncertainties experienced. [6-10] 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 burnout, posttraumatic stress, compassion fatigue and moral distress using standardised measures[2 11]. Whilst this research is important[12 13] it does not give

[1] The authors note that PIC and PCC are used interchangeably, for this study PCC is used to encompass high dependency units (HDU), and transport teams.

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a 'full' picture of healthcare professionals' experiences at work, e.g. how their burnout 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 wellbeing. [14]

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 wellbeing with a view to understanding how it may be improved.

The research questions were:

1. What challenges to their workplace wellbeing do PCC consultants experience?
2. What factors support PCC consultants' wellbeing at work?

Method

Design

This study adopted an exploratory, interpretative qualitative design because of its aim to elicit lived experiences of PCC consultants' wellbeing. 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.[15 16] The consolidated criteria for reporting qualitative research (COREQ[17]) 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.

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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 received ethical approval from Aston University Research Ethics Committee and permission was granted by the President of the Paediatric Critical Care Society to invite their members to participate. 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 semi-structured 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.

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Following completion of the interview, participants were sent a debrief form which signposted them to organisations that offer support to improve healthcare professional wellbeing. 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 two 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 minutes and one hour and 30 minutes.

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

1. Data were transcribed verbatim by the researcher (SS).

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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[19] 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.[20] 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 twenty-five years' experience of working in the National Health Service (NHS). PD is a male medical consultant in PCC with over thirteen years' experience of working in the NHS. RM and PD currently work in (different) PCC units and have

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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 twenty 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 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, general intensive care units and mixed specialties units.

Thematic analysis generated six themes representing consultants' experiences of wellbeing (see Table 1). Despite working in a highly stimulating and challenging environment all PCC

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consultants who took part were able to reflect on their experiences and what might improve their wellbeing.

Table 1: Themes identified

Themes
1. Positive & negative impact of working during COVID-19
2. Job satisfaction & 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 & adaptive
6. Importance of civility & staff retention for good teamwork

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 wellbeing.

> *"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*

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227 *respite and childcare. [..] The inability to see friends, socially which is you know my*
228 *world…the normal stuff that I do that maintains my wellbeing- that's been a big impact. And,*
229 *you know the other thing has been my [partner] has been working from home, er for the last*
230 *sort of 18 months now nearly, which you know is not [their] choice and you know we've had*
231 *to adapt to that as well"* [Participant 1001]

232 One of the key changes experienced by consultants in this study between the first and second
233 waves of the pandemic was a shift from a sense of public goodwill in the first wave toward a
234 feeling of frustration in the second. This frustration was brought about, among other things,
235 by members of the public not wearing masks and not adhering to social distancing rules on
236 public transport.

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

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

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

250 It is clear that PCC consultants experienced anxiety in response to the pandemic, which for
251 some, was coupled with significant changes to their practice. The pandemic was almost a

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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 & 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

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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 versus 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]

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298 These extracts demonstrate the moral distress sometimes experienced by PCC consultants.
299 Not only are there difficult decisions to be made, but they feel *"hamstrung"* (Participant
300 1002) due to the demands of patient confidentiality, set against the increased media coverage
301 of individual cases sometimes instigated by families.

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

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

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

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

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

321

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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 2 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]

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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 wellbeing support provided by their hospital management teams was inadequate. Participants reflected on the creative wellbeing 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 wellbeing 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 wellbeing 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]

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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 wellbeing 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 wellbeing support that is appropriate and accessible to those working on clinical shifts.

Theme 5: Successful coping strategies are personal & adaptive

As indicated in the previous theme, PCC consultants in this study wanted approaches to improve their wellbeing that were appropriate and accessible to them. Many were able to describe their own informal strategies to ensure that they maintain good wellbeing. 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 buts 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 wellbeing, both while at work and outside of work.

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

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

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

430

431 ***Theme 6: Importance of civility & staff retention for good teamwork***

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

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

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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. Burnout 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.

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"[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 wellbeing and that of others working in PCC. They have presented the positive factors which can help to create a wellbeing-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 wellbeing 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 wellbeing activities, they wanted more sustainable psychological support, e.g. from psychologists, to be available, ideally without need for referral.

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Discussion

PCC consultants' accounts have shown us that their wellbeing can be challenged in a number of ways and that multifaceted strategies are required to improve staff wellbeing. Not surprisingly, consultants' wellbeing was challenged during the height of the COVID-19 pandemic, but there were positives drawn from that experience too. The key challenges to consultants' wellbeing focused around systemic issues relating to shift patterns, the ageing workforce, high turnover of nursing staff. These challenges to wellbeing sometimes manifested as compassion fatigue and/or burnout 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 and colleagues recommended further examination and re-conceptualisation of the concept[21].

The challenges to wellbeing 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[22-26]. 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: [27] which include (but are not limited to): i) ensuring staff are able to change parts of their role through job planning; ii) consultants are able to work flexibly and where possible remotely; iii) consultants who are going through the menopause should be adequately supported; and iv) consultants should feel supported and included in a workplace where mental and physical wellbeing 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 [28 29]. Evidence indicates that at the age of fifty-five, nights become more challenging with greater recovery time needed post

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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 wellbeing. Hospital management needs to consider alternative options for consultants as they age, to ensure their expertise is valued but their wellbeing is not compromised.

Working in COVID-19 has and continues to have a huge impact on healthcare professionals' wellbeing[30-34]. 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 wellbeing 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 wellbeing is maintained[35 36]. Recent research surrounding social prescribing has identified benefits of 'prescribing' social activities and local groups in the alleviation of symptoms associated with depression[37 38].

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Working in PCC requires one to work as part of a team[39] And recognition of the wider team[40-42] 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 wellbeing 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 [43 44], 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 wellbeing 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 [20] 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.

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Clinical Implications

The problem of burnout among doctors has been recognised by the UK government [45] and the General Medical Council (GMC) and the issue of poor wellbeing has been prioritised in the NHS Health and Wellbeing Framework[46]. 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 wellbeing of staff generally, and nothing to date which focuses on PCC consultants. Our research has indicated that current wellbeing 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 wellbeing. The GMC report[46] and this study supports the psychological theory of self-determination[47] as a way of understanding the basic psychological elements of wellbeing, i.e. what is required for consultants to experience wellbeing 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 wellbeing (*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 wellbeing is not compromised, whilst also not compromising the care provided to patients. Hospital

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management teams and PCC units need to work together to ensure that wellbeing opportunities are accessible and available to all staff regardless of the shift patterns they work. While consultants recognised the need to improve their wellbeing, 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 wellbeing, where consultants are invited to discuss their experiences of burnout 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 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 wellbeing. Psychological measures will be required to determine the impact of those interventions on staff burnout and wellbeing. Furthermore, the impact of improved PCC consultant wellbeing needs to be measured in terms of staff retention, sickness, and numbers leaving the speciality and the profession [28 29].

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Conclusion

To conclude, the findings from this study clearly indicate that consultants working in PCC face a number of challenges to their wellbeing. Current offerings to improve wellbeing do not meet consultants' needs. There are some identifiable factors which need to be tackled, e.g. 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 wellbeing need to be developed and systematically evaluated to determine how to improve consultant wellbeing and reduce the levels of burnout and compassion fatigue among PCC consultants.

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Contributor statement

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.

Competing interests

There are no conflicts of interest.

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636 Birmingham Children's Hospital, Birmingham, UK (Ref: 37-6-124).

637 **Data sharing statement**

638 All data that are available is included in article.

639 **Ethics agreement statement**
640 This study involves human participants and was approved by the Aston University Research
641 Ethics Committee (ref: Psych 200248747).
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COREQ (COnsolidated Criteria for Reporting Qualitative research) Checklist

Developed from: *Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International journal for quality in health care, 19(6), 349-357.*

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.

Topic	Item Number	Guide Questions/Descriptions	Comments	Page Number reported on
Domain 1: Research team and reflexivity				
Personal characteristics				
Interviewer/facilitators	1	Which author/s conducted the interview or focus group?	SS conducted the interviews	4
Credentials	2	What were the researchers' credentials? E.g., PhD, MSc	SS is an MSc student, RS is a health psychologist, RM is an advanced nurse practitioner, PD is a medical consultant in critical care and IB is a psychology researcher with a PhD and MSc.	4, 5,6
Occupation	3	What was their occupation at the time of the study?	SS is an MSc student, RS is a health psychologist, RM is an advanced nurse practitioner, PD is a medical consultant in critical care and IB is a psychology researcher with a PhD and MSc.	4,5, 6
Gender	4	Was the researcher male or female?	PD is male, IB, SS, RM, and RS are female	6
Experience and training	5	What experience or training did the researcher have?	SS who conducted the interviews received appropriate training in conducting qualitative interviews through RS and IB	4
Relationship with participants				
Relationship established	6	Was a relationship established prior to study commencement?	SS established rapport and potential participants through initial consent electronically and information process prior to individuals taking part in the interview	4

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Participant knowledge of the interviewer	7	What did the participants know about the researcher? E.g., personal goals, reasons for doing the study	The participants were all aware that SS was a MSc student at Aston University and this study was part of this MSc.	4
Interviewer characteristics	8	What characteristics were reported about the interviewer/facililtor?	SS had no experience in conducting research on PCC	4
Domain 2: Study design				
Theoretical framework				
Methodological orientations and theory	9	What methodological orientations was stated to underpin the study?	Inductive thematic analysis was used to examine the data	5
Participant selection				
Sampling	10	How were participants selected? E.g., purposive, convenience, consecutive, snowball	Convenience and purposive sampling	3
Method of approach	11	How were participants approached? E.g., face to face, telephone, mail	Online on social media, and through word of mouth	4
Sample size	12	How many participants?	11	7
Nonparticipation	13	How many people refused to participate or dropped out?	N/A	n/a
Setting				
Setting of data collection	14	Where was the data collected? E.g., home, clinic, workplace	Data was collected over video technology and the participants took part from their place of work and their homes.	4
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	In all interviews only the participants were present. For those conducted in place of work there may have been people present in the room, but all participants used headphones if this occurred therefore only participants could hear the interviewer.	4
Descriptive of sample	16	What are the important characteristics of the sample?	All participants had to be currently working as consultant in a PCC unit within the U.K and had to be willing to take part in an online interview	3
Data collection				
Interview guide	17	Were questions, prompts, guides provided by the authors?	The topic guide was constructed by PD, RM , RS, SS based on their own clinical experiences and on the current research field.	4
Repeat interviews	18	Were repeat interviews carried out?	N/A	n/a

Audio/visual recording	19	Did the research use audio or visual recording to collect data?	Yes, audio and visual platforms were used to collect data.	4
Field notes	20	Were field notes made during and/after the interview or focus group?		
Duration	21	What was the duration of the interviews?	Thirty minutes to 1hr 30 minutes	7
Data saturation	22	Was data saturation discussed?	Yes, and data collection finished once data saturation had been reached	4
Transcript returned	23	Were transcripts returned to participants for comments and correction?	Yes, all transcripts where participants agreed to see their transcripts, were returned to participants prior to data analysis	4
Domain 3: analysis and findings				
Data analysis				
Number of data coders	24	How many data coded the data?	Initially IB coded the data, RM, PD, RS, SS commented on the analysis as the different stages independently.	5
Description of the coding tree	25	Did authors provide a description of the coding tree?	The authors did not provide a conceptual description of the coding tree.	n/a
Derivation of themes	26	Were themes identified in advance or derived from the data?	Themes, as is the framework, for conducting inductive thematic analysis were derived from the data solely.	5,6
Software	27	What software if applicable was used to manage the data?	IB used NVivo to manage the data	5
Participant checking	28	Did participants provide feedback on the findings?	No.	n/a
Reporting				
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? E.g., a participant number?	Yes, participant quotes were used to illustrate the themes that were found in the data. This is a crucial part of thematic analysis.	8- 16
Data and findings consistent	30	Was there consistency between the data presented and the findings?	Yes, and this was achieved by ensuring that each theme was illustrated with a relvant quotation. Throughout the study in the results section, quotations from a number of participants are present	8-16
Clarity of major themes	31	Were major themes clearly presented in the findings?	These are clearly highlighted in a table but	8-16

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			also depictured within the text.	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	The results section and discussion focus on the eight major themes. There are no minor themes as the major themes illustrate the themes that occurred within these.	8-16

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