



Basic Research Article



Experiences and views of frontline healthcare workers' family members in the UK during the COVID-19 pandemic: a qualitative study

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ABSTRACT

Background: The COVID-19 pandemic has had a well-documented negative impact on the mental health and wellbeing of frontline healthcare workers (HCWs). Whilst no research has to date been carried out to explore the challenges experienced by the families of HCWs, some previous research has been conducted with military families, demonstrating that family members of deployed military personnel may also be affected seriously and negatively. Objectives: This study aimed to explore the experiences, views, and mental health impact on frontline HCWs' families during the COVID-19 pandemic in the UK and what support the families of frontline HCWs may need.

Method: Close family members and friends of HCWs were interviewed. Transcripts were analysed in line with the principles of reflexive thematic analysis.

Results: We completed fourteen interviews with three siblings, one mother, one friend, and nine spouses of HCWs. Family members were highly motivated to support healthcare workers and felt an intense sense of pride in their work. However, they also experienced increased domestic responsibilities and emotional burden due to anxiety about their loved ones' work. The fact that sacrifices made by family members were not noticed by society, the anxiety they felt about their family's physical health, the impact of hearing about traumatic experiences, and the failure of healthcare organisations to meet the needs of the HCWs all negatively affected the family members.

Conclusions: We have an ethical responsibility to attend to the experiences and needs of the families of healthcare professionals. This study emphasises the experiences and needs of family members of healthcare professionals, which have hitherto been missing from the literature. Further research is needed to hear from more parents, siblings and friends, partners in same sex relationships, as well as children of HCWs, to explore the variety of family members and supporters' experiences more fully.

Experiencias y Perspectivas de los Familiares de los Trabajadores de la Salud de la Primera Línea en el Reino Unido durante la Pandemia COVID-19: Un estudio cualitativo

Antecedentes: La pandemia de COVID-19 ha tenido un impacto negativo bien documentado en la salud mental y bienestar de los trabajadores de la salud de la primera línea (HCWs por sus siglas en ingles). Mientras que hasta la fecha no se han llevado a cabo investigaciones que exploren los desafíos experimentados por las familias de los HCWs, algunas investigaciones previas fueron realizadas con familias de militares, demostrando que los miembros de la familia del personal militar desplegado también pueden ser afectados seria y negativamente. Objetivos: Este estudio apuntó a explorar las experiencias, puntos de vista, y el impacto en la salud mental de las familias de los HCWs de la primera línea durante la pandemia de COVID-19 en el Reino Unido y qué apoyo estas familias podrían necesitar.

Método: Completamos catorce entrevistas con tres hermanos, una madre, un amigo y nueve esposas de HCWs. Los familiares estaban altamente motivados en apoyar a los trabajadores de la salud y sintieron un intenso sentido de orgullo por su trabajo. Sin embargo, también experimentaron un aumento en las responsabilidades domésticas y en la carga emocional debido a la ansiedad sobre el trabajo de sus seres queridos. El hecho de que el sacrificio hecho por los familiares no fuera notado por la sociedad, la ansiedad que sintieron sobre la salud física de su familia, el impacto de escuchar sobre experiencias traumáticas y la falla de las organizaciones de salud en conocer las necesidades de los HCWs, todo ello afectó negativamente a los familiares.

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· COVID19 has impacted families of HCWs as well as workers themselves. They have experienced more anxiety, increased practical burden, significant physical health risks and been exposed vicariously to workers' traumatic experiences. We must ensure HCW families are better supported.

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Conclusiones: Tenemos una responsabilidad ética de abordar las experiencias y necesidades de los familiares de los profesionales de la salud. Este estudio enfatiza las experiencias y necesidades de los familiares de los profesionales de la salud, que hasta ahora no han aparecido en la literatura. Se necesita mayor investigación para escuchar a más padres, hermanos y amigos, parejas en relaciones del mismo sexo, así como de hijos de HCWs, para explorar de forma más completa la variedad de las experiencias de las familias y personas de apoyo.

COVID-19 疫情期间英国一线医护人员家庭成员的经历和观点: 一项定性研究

背景: COVID-19 疫情对一线医护人员 (HCW) 的心理健康和幸福产生了有据可查的负面影响。虽然至今尚未开展任何研究来探讨 HCW 家庭成员所面临的挑战,先前对军人家庭成员进行的一些形式。明报程军人家庭成员也可能受到严重和负围的影响。

目的:本研究旨在探讨英国 COVID-19 疫情期间一线医护人员家庭成员的经历、观点和心理健康影响,以及一线医护人员家人可能需要的支持。

方法:采访了医护人员的亲密家庭成员和朋友。文字稿的分析符合反身主题分析的原则。结果:我们完成了对 HCW 的三个兄弟姐妹、一位母亲、一位朋友和九位配偶的 14 次访谈。家庭成员非常积极地支持医护人员,并对他们的工作感到强烈的自豪感。然而,由于对亲人工作的焦虑,他们也经历了更多的家庭责任和情感负担。家庭成员做出的牺牲没有被社会注意到,他们对家人身体健康的焦虑,听到创伤经历的影响,以及医疗机构未能满足医护人员的需求,这些都对家庭成员产生了负面影响。

结论:我们有关注医护专业人员家庭成员的经历和需求的伦理责任。本研究强调了至今一直在文献中缺失的医护专业人员家庭成员的经历和需求。需要进一步研究以听取更多父母、兄弟姐妹和朋友、同性关系伴侣以及医护人员子女的意见,以更全面地探讨家庭成员和支持者的各种经历。

1. Introduction

The COVID-19 pandemic has had a well-documented negative impact on the mental health and wellbeing of frontline healthcare workers (HCWs). Recent research has shown that nearly 60% of a sample of health and social care workers in the UK met criteria for depression, anxiety, and PTSD symptoms following the first wave of the pandemic (Greene et al., 2021). Additionally, frontline workers may experience burnout, moral injury, and secondary trauma (Billings et al., 2021b; Greenberg, Docherty, Gnanapragasam, & Wessely, 2020).

Social support is a well-established protective factor against mental distress (Brewin, Andrews, & Valentine, 2000) and frontline workers often depend on family support as a key factor to help them to cope with this work (Ozer, Best, Lipsey, & Weiss, 2003). In turn, families are likely to be significantly affected by their family member(s) working in a high-risk frontline occupation during the pandemic. However, at the time of writing and to the best of our knowledge, there is no published research which has examined the impact of health care workers' occupation on their families and what the family's support needs might be.

Whilst we are not aware of any research to date exploring the challenges experienced by the families of HCWs, some previous research has been conducted with military families, demonstrating that family members of military personnel may also be affected seriously and negatively (Davidson, Smith, & Kudler, 1989). For example, children and adolescents of veterans with PTSD have been shown to experience more behavioural and emotional difficulties, and

developmental problems (Selimbasic, Sinanovic, Avdibegovic, & Hamidovic, 2016). Spouses of veterans tend to experience distress (Arzi, Solomon, & Dekel, 2000; Toomey et al., 2019) and spouses of military service members are at increased risk of mental disorders such as depression and anxiety (Eaton et al., 2008), and alcohol and drug use (Booth et al., 2007). Wives of veterans with PTSD have been shown to have more severe depression, anxiety and OCD symptoms compared to wives of veterans without PTSD (Galovski & Lyons, 2004).

In addition to literature on military families, there is also a small body of literature on families of first responders. According to the results of Alrutz, Buetow, Cameron, and Huggard (2020) with 664 partners of emergency responders, 20% of partners struggled with intrusive thoughts about the trauma experienced by their emergency responder family member. Friese (2020) also found that spouses of law enforcement officers tended to experience high levels of stress in addition to sleep deprivation, emotional exhaustion, and relational strain. Some other studies have examined the impact on first responder families of specific crises. Studies conducted after the 11 September, 2001 terrorist attack on the World Trade Centre show that rates of probable PTSD were found to be high among children with emergency medical technician family members (Duarte et al., 2006), and children of first responders were at heightened risk of behavioural problems (Uchida et al., 2018). Spouses of firefighters also reported insomnia and anxiety after 9/11 due to worries about their partners' health and safety (Menendez, Molloy, & Magaldi, 2006).

This literature demonstrates that the families of workers in high-risk occupational roles may also be negatively affected by their loved one's work. Family members of healthcare workers may experience similar stressors to military families and family members of first responders. They too are likely to be worried about the health and safety of their HCW family member. They may also be indirectly exposed to hearing about death and trauma. However, HCW family members may also have unique experiences. Unlike military families, their family member is not deployed overseas for time-limited periods. HCWs continue to live with their families alongside their work and nor are they allocated any dedicated time to decompress and reconnect with their families (Billings et al., 2021a). Unlike the family members of first responders in previous research, the nature of healthcare work during COVID-19 has placed HCWs' families' own health and safety directly at risk. Given the likely impact on HCWs' families and support systems, but as yet unknown nature of this impact, it is imperative to conduct good quality explorative research with this group, to better understand their experiences, views

Supporting family members who are frontline HCWs' key supporters is critically important. If the impact on HCW family members' is not considered, potentially significant mental health problems and needs could go undetected. Further, their ability to support HCWs may be compromised, removing a potentially protective factor for the HCWs' own mental health and wellbeing. To date, there is no published research exploring the experiences and views, or needs, of family members of HCWs. To address this gap, we aimed to explore the experiences, views, and impact on frontline HCWs' families during the COVID-19 pandemic in the UK and what support the families of frontline HCWs may need.

2. Method

2.1. Participants and procedures

The study was approved by the University College London Research Ethics Committee, reference number 20221/001.

Family members and supporters of frontline HCWs (spouse, parent, sibling, or friend) were reached via social media (Twitter and Facebook) and by snowball sampling through healthcare contacts. To increase diversity of perspectives, we included parents, siblings, and friends, as well as spouses. All supporters were considered eligible for the study if they were a key source of support for a HCW who had been working directly in a frontline role treating patients affected by COVID -19 during the pandemic in the UK. Participants either needed to reside in the same household

as the HCW family member, be in close contact with them throughout the pandemic, and/or be in their 'support bubble', defined as 'a support network to link two households' during the pandemic by the UK Government (UK Government, 2020).

A Consent Form and Participant Information Sheet were sent by email to potential participants who expressed interest in the study. All participants provided informed consent prior to taking part in the interview. Interviews were completed by the first author (ST).

Interviews took place remotely via MS Teams and were digitally audio-recorded and then transcribed by the interviewer. The interview guide (see supplementary materials) was prepared in cooperation with our Expert Reference Group comprising experts in psychological trauma. Any identifying information about the participants, their frontline worker family member or their place of work was omitted from the transcript of the interview to protect anonymity.

All procedures were completed according to the ethical standards as agreed in the UCL ethical approval.

2.2. Analysis

Interview transcripts were analysed following the principles of reflexive thematic analysis (Braun & Clarke, 2006; Braun & Clarke, 2019). Braun and Clarke (2006) describe reflexive thematic analysis as independent of theory and epistemology. We chose reflexive thematic analysis as it can enable a rich, detailed, and complex account of data. It also offers researchers flexibility, and the analysis steps are well structured (Braun & Clarke, 2020). In the first step of the analysis, we read and re-read all transcripts to increase familiarity with the data and discussed emerging ideas in the research meetings. In the second step, each author initially analysed two transcripts independently and generated a list of potential initial codes. At research meetings, these codes were reviewed and agreed upon and combined into a provisional coding framework. In the third step, all transcripts were imported to NVivo Pro V12 and coded according to the provisional coding frame. All codes were inductive and generated from the data, rather than being determined a-priori by existing hypotheses. In the fourth step, we reviewed the entire data set as whole, and collapsed and combined a number of codes, to develop overlapped themes. The final version of the themes was refined and improved with feedback from all the authors.

2.3. Ethical issues

This research involved participants potentially talking about distressing personal experiences. Participants were fully informed of the nature of the study in

advance of taking part and participation was entirely voluntary. Participants were reminded of their right to pause, postpone, or terminate the interview at the beginning of the meeting. Information was given signposting to psychological support services as appropriate. We sought to protect the research team from potential emotional distress due to listening to the experiences of the family members with training and regular supervision.

2.4. Quality

We conducted this study according to the Standards for Reporting Qualitative Research Framework (O'Brien, Harris, Beckman, Reed, & Cook, 2014) and specific guidance for quality practice in thematic analysis (Braun & Clarke, 2020).

Six researchers were involved in the coding and analysis part of the study. Following coding and analyses, the researchers discussed their suppositions and 'blind spots' to improve the validity of our analyses.

We do not aim to generalise the results of our study to the families and supporters of all frontline HCWs in the UK. However, we aimed to increase the transferability of the study findings by including a diverse range of participants and exploring a variety of experiences and views amongst HCW's families and supporters.

In order to increase the trustworthiness of our study, we have clearly described all the procedures we have followed and provide quotes from participants to illustrate our analyses (Nowell, Norris, White, & Moules, 2017).

2.5. Reflexivity

There is diversity among the researchers who conducted the study including different career stages, genders (one male, five female), and cultural groups. ST is a PhD student at the University College London (UCL), UK. NG is a Principal Clinical Psychologist in the NHS (UK National Health Service) and Clinical Lecturer in Clinical Mental Health Sciences at UCL. TG is an Associate Professor and Head of the Department of Community Mental Health at the University of Haifa and has expertise in psychological trauma research. DL is a Senior Research Fellow at UCL with over 10 years of experience of conducting mental health research in occupational settings. DM is a Consultant Clinical Psychologist and Professor in psychological trauma and current President of UK Psychological Trauma Society, with nearly 20 years working within this field. JB is a Consultant Clinical Psychologist and Associate Clinical Professor with over 20 years of experience working in the NHS, academia and UK Government and has specialist

Table 1. Participants Characteristics (n = 14).

Characteristics	n (%)
Gender	
Female	8 (57)
Male	6 (43)
Relationship with HCWs	
Spouse	9 (65)
Sibling	3 (21)
Mother	1 (7)
Friend	1 (7)
Ethnic Group	
Asian or Asian British	1 (7)
Black African, Black British, or Caribbean	1 (7)
Southeast Asian	1 (7)
White	11 (79)
Age Range	
18-24	1 (14)
25-34	3 (21)
35-44	5 (36)
45-54	4 (29)
65+	1 (14)
HCWs' role	
Ambulance Driver	1 (7)
Doctor-Consultant	6 (43)
Doctor-Junior	4 (29)
Physiotherapist	3 (21)
HCWs' setting ^a	
Accident & Emergency (A&E) Department	2
Acute ward	2
Ambulance service	1
General Hospital/COVID wards	7
ICU	7
Older adults ward	1
Hospice	1
Palliative care	1
Geographical Location	
England-Southeast	2 (14)
England-London	5 (36)
England- South Central	1 (7)
England-Southwest	2 (14)
England- Midlands	1 (7)
England-Northeast	3 (22)

^aSeveral participants' HCW family members worked across more than one setting in response to the pandemic.

expertise in trauma, mental health, and well-being in high-risk occupational groups.

3. Results

Fourteen family members and supporters of frontline HCWs were recruited to the study. Most participants were spouses of HCWs, although we also spoke to three siblings, one parent, and one friend. The gender, age range and locations of the participants, as well as HCWs' roles and settings are shown in Table 1.

We also asked family members if they had contracted COVID-19 themselves. According to our findings, six of the family members sharing the same

Table 2. Themes.

Themes

- 1.1. Burden of responsibilities
- 1.2. Emotional burden
- 1.3. What about me?
- 1.4. Pride vs. Just doing their job
- 1.5. Victims of neglect
- 1.6. Impact on physical health
- 1.7. Personal medical dictionary
- 1.8. Hearing about traumatic experiences of frontline worker

house with the healthcare worker (n = 9) contracted COVID, and two of them described having had more severe symptoms than the healthcare worker.

Interviews were conducted between 24 May and 24 September 2021, which followed the second wave of COVID-19 in the UK. This wave peaked between January and April 2021, and the lifting of most social restrictions across the UK occurred between June and July 2021. Interviews ranged from 26 to 60 minutes, although most took between 40 and 45 minutes. From our analysis of the data, we derived eight inductive themes (see Table 2)

3.1. Burden of responsibilities

For most participants, alongside the increase in the workload of frontline professionals during the pandemic, the balance of at-home responsibilities also shifted. Many family members stated that domestic responsibilities which were previously shared, such as cleaning and cooking, were mostly taken on by them during the pandemic.

I do everything to keep it going ... we both like cooking, but I suppose I did more cooking during the pandemic. And we've also got a dog. So, I take our dog out all the time because I'm always at home. I do a lot more housework than she does ... I definitely do more stuff. (Male fiancée of a doctor)

Family members also took on extra responsibilities and did more to take care of the HCW family member.

I've helped out making a packed lunch and when she came home from work every day, we got into a sort of routine where I would close all the curtains so she could strip off in front of the washing machine and put [her clothes] in the washing machine, put the washing machine on enroute to the shower upstairs. She got to the shower and would be able to dive straight in the shower without touching too many doors or anything. So, I was helping out in that way. (Male partner of a physiotherapist)

The closure of the nurseries and schools due to the pandemic and the inability to meet other family members who might usually help with childcare also led to an increase in responsibilities regarding childcare and home schooling.

I have felt frustrated sometimes that the shifts and the kind of expectations on him and also then the knockon effect on me. We have kids so that, you know, the kids need picking up from nursery. And if he's being put on additional shifts, that was very frustrating for me. (Wife of a doctor)

Where families of HCWs were still able to access nursery or school care due to having key worker status, this was very much appreciated. However, the reality of school closures and ongoing social restrictions continued to impact on HCW families with children.

I think because our children's nursery stayed open that was the thing that made the single biggest difference to it being OK or making it manageable because those periods where I did have the kids home either when my partner was ill or when there was a contact at nursery that tested positive. Those were the hardest periods to manage and ... if that had been the norm, I would really have struggled. But because we kept the kids in nursery, we retained a bit of normality. (Wife of a doctor)

There were, however, also exceptions. A few participants described their HCW family member having more time for family during the pandemic. In other instances, the HCW might be relied on more to undertake tasks such as shopping, or if the family fell ill (often with COVID in the early stages of the pandemic, see theme 6) family members might not be able to take responsibility for housework and their domestic responsibilities had to be undertaken by the healthcare professional during this period.

She would go shopping because we could not go shopping. She felt safe to go shopping and things like that. (Husband of a consultant doctor)

My focus has had to be to trust that my husband will be coping with my children. So that I can focus on recovering here. I've had to kind of trust my husband and let go a little bit and some of the things I would normally be in control of. They might not be eating vegetables every night like they would be if I was at home cooking. But he's feeding them. (Wife of an ambulance driver who was in rehabilitation after contracting COVID)

3.2. Emotional burden

Whilst practical burden was experienced most greatly by family members living with HCWs, all of the participants stated that they experienced increased anxiety, fear, and worry. Participants described concerns about risk to their frontline worker family members' lives, worrying about their working conditions (see theme 5), and the health of the whole family.

The main thing was the worry, just not knowing if he would be OK, if he would die, not knowing if he did die on his own and how that would be. (Wife of a

It's scary because like what if she gets it? What if something happens to her? It's kind of like you just have to wait and see, you cannot do anything, but you always worry about that. (Sister of a junior doctor)

One of the biggest problems faced by the family members of HCWs was the separation of family members from each other due to the pandemic. Family members talked about the particular impact on children and how they were affected by being away from their healthcare family member.



Particularly the older one had lots of sleep disturbances in those two weeks because my husband was away from us for maybe three weeks because he was isolating and then he got worse and worse then in the hospital. (Wife of a consultant doctor)

I think it affected my son, who is more emotional and more responsive to tension in family environments. He had expressed an interest in being a doctor when he's making some university choices. But he's chosen not to be a doctor, and one of the reasons he cited was that he didn't like to have seen what the pandemic had done to his mum. (Husband of a consultant doctor)

Where the physical health of family members was also affected by COVID (see theme 6), children could also be separated from wider family members who were ill, hospitalised or required to isolate.

I think, in terms of my own family, the children, I think it has been quite difficult, particularly for my 14-year-old, because I've never really been away and left them before. Last weekend was the first time I'd seen them since April. (Ambulance driver's wife who was in rehabilitation after contracting COVID)

3.3. What about me?

The family members we spoke to had been involved in the pandemic as a second line, supporting their frontline family members both practically and emotionally. However, most of the family members felt like there was a lack of recognition by others of family members' sacrifices.

I can be like really triggered because people, like, come up: "It's so hard. Isn't he just an angel?" And I'm just like, "I am the angel. I am the one at home with the kids!" That was my feeling, I found it a bit like it's not just him It's so many others. Look at me. I'm in front of my laptop for 12 hours. I'm going crazy. (Wife of a doctor)

Sometimes I look at our friends and their husbands work in offices so they can all be together, and I know that everybody's together, and it's awful because they're all on top of each other in the house but I'm often alone For example, my youngest child at the time was like 19 days old, and he had to do night shifts. And you're alone. You're like "I'm alone!". (Wife of a consultant doctor)

Increased domestic responsibilities and childcare had a negative impact on the lives and careers of several family members, who felt that they, and their work, had to be sacrificed for their family members' heath care work.

I had to stop some elements of my work so that I could look after the kids. When her shifts had to change, I could no longer work on one of the evenings a week. I've had to stop other elements of my work even after we were allowed to reopen because I've had to look after the kids more because we did not have the grandparents looking after them and because she has been working longer hours. (Husband of a junior doctor)

I feel very proud, but the practicalities of the time were often frustrating ... all of the childcare pressure was coming to me, and it meant our kids didn't get to see as much of their dad and they missed him as well. And my work is very demanding ... When the kids are sick, we had one of our kids in isolation because there was a contact at nursery. So then I'm doing all of that, being with him at home. And my partner was not doing any of it because he had to study or work. What about my work? (Female partner of a doctor)

Extended family members were also affected by being less involved in childcare. One mother of a physiotherapist told us how her identity as a grandmother was affected. She felt helpless and frustrated because of not being able to help her daughter and grandchildren. She subsequently took more risks and sacrificed her own health to help.

I felt absolutely helpless initially that I couldn't do anything to help her. Normally I would have gone and helped her, I wasn't allowed to. You know, in fact, we did change that when we did do some childcare for her because it got so difficult, and her children were feeling the effects. So, I felt helpless ... I felt cross with the whole pandemic, very cross with it, because as you get older, you realize your life expectancy is limited. You don't know how long you're going to be fit. Therefore, you want to spend as much time with your grandchildren, with your family doing things you want to do. And the pandemic took that away from everyone. (Mother of a physiotherapist)

3.4. Pride vs. just doing their job

Participants for the most part described a strong feeling of pride in their family member and the work they were doing during the pandemic.

I think the main thing is just a sense of pride because of the work that he does ... (Brother of a doctor)

The work itself I always feel proud of. I kind of had an understanding of the importance of the work and what it's like to be supporting people going through important transitions. And so, for the most part, I feel very proud. (Wife of a doctor)

However, in addition to this sense of pride, several participants also stated that the HCWs were just doing their job as usual and were uncomfortable with the media romanticising the situation. They also noted that while they appreciated the positive portrayal of healthcare workers in the media and wider society, they were concerned that it might be forgotten too quickly and overshadow real problems (see theme 5).

I think it's their job. The fact it's a pandemic changes nothing. They do their job. That's what they are paid to do. It's a bit like being in the forces and sent to war. You're paid to do that ... The media always romanticises these things. It always picks up on the worst aspects and sometimes I don't think that's right, but, you know, people needed to know, but then a lot of people jump on the bandwagon of it. They build things. You do your job in my world... (Mother of a physiotherapist)

I think on the whole, the media portrayal's been fairly positive, may be quite short lived. Maybe it was quickly forgotten, all the work that they put in and then, you know, we all kind of appreciated it. Well, it was the peak, and everyone thought how hard they were working and how grateful they were. And then, you know, everyone kind of moves on, perhaps very quickly and forgotten, you know, they are still working incredibly hard and always do. (Sister of a physiotherapist)

Clapping for carers was cute for the first time. Not cute after that. It was too shallow ... If we actually cared about what they've actually done, give them the more pay! (Female friend of a doctor)

3.5. Victims of neglect

Family members of healthcare workers drew attention to ways in which they felt that the needs of their HCW loved ones had been neglected during the pandemic. For example, a wife of an ambulance driver told us that training was a significant requirement that was neglected.

I do feel that my husband didn't have proper training, they did the two weeks preparation course, which did not include anything specific about infection control and COVID.

She also mentioned that lack of support from managers caused stress in the family as well.

There's not even been a consideration from my husband's employer at all in it. And they don't seem to understand the impact on him of me being very ill and in hospital and him trying to cope or the fact that we have two or three sort of growing children, those three young people at home. I don't think at any point have they asked if there's any support that he thinks he would need. I don't think so at all. It's just been "When are you coming back to work?" and "If you don't come back soon, then we're going to have to terminate your contract." I don't think his managers have thought about that at all.

Almost all the participants pointed to personal protective equipment (PPE) as one of the most neglected needs. The husband of a doctor shared his views:

I was concerned for her safety because I didn't feel that they were being adequately protected to the point where I actually went online and bought her a full-face respirator because I was saying, "Well, if they're not protecting you properly, then you just need to take it into your own hands because you've got a family that you want to come home to". But then as it turned out, it wasn't suitable because it wasn't easy enough to clean. But I was concerned, and I was frustrated with the whole PPE thing.

Family members drew attention to the workload and shifts of HCWs and the negative impact this had on families. Participants talked about this as a longstanding issue, which was highlighted by, but not unique to, the COVID context.

I think we need the shifts to be reduced. I think we need study days to be respected ... I think we need health care professionals to have a manageable workload that recognizes family life ... That's the biggest issue ... Officially they are entitled to a certain number of study days and that these exams are compulsory, but then they're not able to take their study days because the rota is short. So, it doesn't matter what you say they're entitled to. If they're not actually able to make use of the provision, then it just means that studying still needs to happen. So, it's not like "OK, you can't take the study days". (Wife of a doctor)

Participants emphasised problems in healthcare workers pay and working conditions.

They're not superhuman. Somebody should take care of them ... If they're heroes, that's great for everybody to see. But they're not always treated like that, even by the NHS. They're not getting more money when he goes, and he has to do a night shift. And the rooms that they stayed are really dirty, disgusting ... People smoke in the room. The locks don't work. I'm sorry, yes, we're all here clapping but he's not really looked after ... Like the canteen, the food ... He's trying to be healthy. The food was just disgusting. It's like chips every day. Really unhealthy food. How can he look after himself if it's not really looked after always? (Wife of a doctor)

3.6. Impact on physical health

In addition to having a serious impact on the physical health of HCWs, there was also a significant risk that HCWs could transmit COVID to their families. This made family members very anxious and often led to them isolating themselves from the healthcare family member or wider family and friendship groups.

I was worried selfishly that she was going to catch it, bring it home and I was going to catch it. So, I felt exposed ... (Husband of a consultant doctor)

We couldn't see her for four or five months because my parents were at risk, there was nothing else we could do. She could spread it. They were worried for their daughter's life, and they're worried for their own life too. (Sister of a junior doctor)

Many of the family members we spoke to told us that they, and other family members, had caught COVID in the first wave in the UK, before vaccinations were available. Several had been very seriously ill. Some of the family members experienced long COVID symptoms and challenging recoveries. The



husband of a physiotherapist, who had been struggling with long COVID, shared his experiences and his need for ongoing medical support:

Because of my personal symptoms of COVID, I've slept less ... I've had long COVID, I found myself with low energy after having it. And it's taken a long time to recover from it. I know I'm going to need increased medical support, definitely because of the long COVID symptoms.

He also mentioned how difficult it had been to get COVID tests as a family member of a healthcare worker in the early phases of the pandemic, and as a result, how he felt that family members were not supported by the NHS.

COVID testing ... We were not actively provided with support is something as a member of a health care workers family. You have to actually go and seek out to get that support and that testing, which obviously gives that level of reassurance.

3.7. Personal medical dictionary

The medical knowledge that healthcare professionals have often led to them being seen as a source of information during the pandemic. It was emphasised by many participants that having medical knowledge had advantages as well as disadvantages. For example, the brother of a doctor told us the advantages of his brother's medical knowledge:

I also really like asking questions to him because you learn things. So, I learn about the medical profession and get a bit of insight into what they do. Learn some technical terms, which is quite cool. It's exciting to hear about the things they do as well. And I think, yeah, it gives you a bit of a fly on the wall experience or kind of a bit of insight into the truth of COVID and the pandemic.

We also noticed in our analysis that having someone in their family with medical knowledge made the family members feel more secure. A husband of a consultant doctor mentioned that:

But at least she had the equipment. She could take our blood. She knew the situation. She knew the language to use when she was speaking to professionals about our situation. So, I suppose in that way, I was less stressed than some other people because the patient has knowledge.

However, medical knowledge also brought some costs. For instance, the wife of a doctor, whose husband was seriously ill with COVID and had to stay in the COVID ward for 9 days, touched on the emotional burden of contracting COVID as a doctor with all the medical knowledge:

I think that shook him for a while because he was hit. He was on a ward with four other guys. And he said, every day one of the guys would get transferred to

intensive care and he wouldn't know if they recovered, if they died. He didn't know what happened to them. And then somebody else would come and then they would go to intensive care. And he didn't have to go to intensive care, which was very lucky. But still, the experience of being confined to one room where every day somebody else gets taken away to intensive care as a doctor. He also understands how serious that is. So, he knew how ill he was and how serious it was. I think that was a real shock

3.8. Hearing about traumatic experiences of frontline workers

HCWs often shared stories about their traumatic experiences with their family members, whom they saw as a source of support and an opportunity to offload. However, the effect of hearing about HCWs' experiences could be very distressing for family members.

It was very surreal to go into ... He mentioned one person actually was a pregnant woman who was intubated, and they had to take the baby out when she was asleep, but the family couldn't come and see the baby and the family couldn't come and see her. And that was quite a strange thing for a baby to be in like a box by itself. It was very strange ... And to call people up to say that this has happened when they can't come to be with their daughter, or the grandchild was very strange ... (Wife of a doctor)

Hearing about these experiences could have serious negative effects on family members.

I think secondary trauma and vicarious trauma would likely be a thing in families, I don't even think it's in mind. But I think I have heard that some family members have had that where they've kind of almost like imagined scenarios and having quite vivid images ... (Brother of a doctor)

4. Discussion

In this study we aimed to explore the experiences, views, and needs of family members of HCWs who have been working on the frontline during the COVID19 pandemic in the UK. We found that family members were proud of the work their healthcare worker loved ones did, were willing to provide additional support and took on more responsibilities at home. However, they also reported potentially negative impacts of providing this support and unmet support needs which need to be addressed.

While spouses living in the same house with HCWs experienced an increased burden of responsibilities like cleaning and childcare, the emotional burden of anxiety, fear and worry was experienced by all family members and supporters. Supporting HCWs also negatively affected the careers of many family members due to increased domestic responsibilities and

made them feel that their sacrifices were being ignored by society. Although they were proud of their HCW family member, family members and supporters often felt that the HCWs' needs at work were not adequately met which led to frustration. The fact that family members are healthcare workers and have medical knowledge made them feel safer. However, hearing the traumatic experiences of HCWs could cause emotional distress for family members. High infection risk caused family members to feel intense anxiety about their health and many fell ill with COVID in the first wave of the pandemic.

The findings of this study show that families and close supporters of HCWs experienced a similar negative impact to families of military personnel, including experiencing distress (Selimbasic et al., 2016; Toomey et al., 2019), high anxiety and depression (Eaton et al., 2008), and secondary trauma (Yager, Gerszberg, & Dohrenwend, 2016). There were also similar experiences among families of HCWs and families of first responders such as the family member sacrificing their own career for the frontline worker's work (Regehr, Dimitropoulos, Bright, George, & Henderson, 2005), worrying about the danger of the frontline workers' job (Regehr, 2005), and experiencing high levels of anxiety (Alexander & Walker, 1996). However, unlike military and first responder families, there were some experiences which were specific to the families of HCWs. In addition to worrying about the health of the HCW, family members also worried intensely about their own health. Furthermore, whereas military family members do not live in the same traumatic environment as serving military personnel and hear about their experiences from a relatively safe/far distance or often after the military personnel had returned home from deployment, family members of HCWs were living in the same traumatic environment and were directly, as well as indirectly, affected by the pandemic. When the HCWs were exposed to traumatic experiences they often shared this with their families and friends, often just a few hours after the experience with associated intense emotion. This makes family members and supporters of HCWs more open to vicarious and secondary trauma.

Almost all of the participants emphasised that healthcare work in the UK is not family friendly, and that this experience pre-dated COVID. According to a 2018 NHS Staff Survey, 39.8% of HCWs across the UK reported feeling unwell due to work-related stress (National Health Service, 2021), and the main reasons for not feeling well were related to burnout and dissatisfaction due to the increased workload because of the lack of sufficient staffing and resources (Carrieri et al., 2018). Our findings support the results of this study. Long working hours, shortening of exam study times, determining the hospital that the HCW will work in regardless of spouses' status or residence were very stressful for frontline workers and their families. COVID-19 has exacerbated an already difficult situation for HCWs and their families, but attention urgently needs to be paid to supporting the family life of HCWs beyond COVID.

4.1. Limitations and strengths

This study has a number of strengths. We recruited a broad sample of participants which gave us the opportunity to explore different perspectives of those supporting HCWs. Our research team was also diverse, consisting of scientists from different backgrounds and clinical experience and including different genders, cultural groups, and career stages This enabled us to consider our findings from multiple perspectives and build a rich and in-depth analysis. All analysis steps were meticulously applied by the team to increase the validity and trustworthiness of the findings.

This study still has some limitations. Firstly, whilst we sought to gather a variety of family members and supporters' views, we were only able to hear the experiences of one mother, three siblings and one friend, alongside the voices of several spouses in heterosexual relationships. It would be important to hear from other parents, siblings and friends, partners in same sex relationships as well as children of HCWs, to more fully explore the variety of family members and supporters' experiences. Our participants were mostly families of doctors (71%), and we could not reach the families of nurses who are a key group of HCWs notably very impacted by the COVID pandemic. Our sample was also limited by a small number of participants from ethnic minority backgrounds. The families and supporters of these workers may have had other views and experiences to add to this study. Further research paying attention to these groups will help more family members' voices be heard.

4.2. Implications

Supporting healthcare workers families is important not only to support them, but also to support the work that HCWs do and the sustainability of the health services they provide. We have an ethical, legal, and financial obligation to support HCWs and their families. One of the most important needs of family members was to know that their HCW family members work in a safe environment. For this, it is crucial to make sure that the needs of frontline workers are fully met, such as ensuring that healthcare workers are adequately protected and trained, supported by managers, have manageable workloads and shifts, and see practical improvements (i.e. being

provided with healthy food, and comfortable/clean resting areas).

The results of this study also support previous research that healthcare services are not a familyfriendly place to work. More family-friendly policies and practices must be considered in order to support the longevity of this workforce.

Our results also highlight that family members have their own specific needs. Firstly, many family members reported that they needed long-term medical support after contracting COVID. Whilst social restrictions in the UK and in many places across the world are being lifted thanks to vaccination, COVID still threatens lives, and the families of frontline workers continue to be at great risk in this. Therefore, the families of frontline workers require adequate testing and long-term medical follow-up and support.

Secondly, one of the most difficult issues for HCW families was childcare. HCW family members really valued being able to access ongoing childcare during the pandemic, although this was not accessible to all families. Therefore, it is important to enable access to childcare support for HCW families, regardless of whether both parents are frontline workers or not. Not doing this places significant burden on HCW's family members at significant detriment to their own wellbeing and careers.

The results of this study also suggest that there may be a significant impact on the mental health of family members of healthcare workers. Family members of HCWs were often anxious and worried about their family members' safety and wellbeing. Family members who hear the traumatic experiences of HCWs are also at significant risk of vicarious trauma. This warrants further research as well as consideration in the training of HCWs and managers of HCWs in order to increase awareness about the potential wide-reaching impact that healthcare work can have on others.

Finally, new support services have been made available for HCWs in many settings across the UK and we urge that these be extended to their families. This would provide more equitable support to similar services currently available to military families. Therapists in such support services should consider the family context of the healthcare workers they are supporting and whether additional information, signposting or support may be beneficial to them.

5. Conclusion

In this study, we aimed to explore the experiences, views, and needs of the family members of healthcare professionals, who are an important source of support for HCWs. Family members who are exposed to traumatic experiences of HCWs while living in the same traumatic pandemic environment with them may have a high risk of secondary trauma, anxiety, and depression. In order to help family members, it is crucial to improve the negative work environment of HCWs and to ensure their workloads and shifts are more family friendly. Families of HCWs place their physical health at significant risk so it is essential to ensure adequate access to PPE, testing and follow up medical support for HCWs and their families. Supporting the mental health and wellbeing of HCWs families is essential not only for their own wellbeing, but also to support the work that HCWs do and the sustainability of the health services they provide.

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Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability

The data that support the findings of this study are available from the corresponding author (ST), upon reasonable request. The data have not been made publicly available due to the personal and sensitive content of the participants' accounts.

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