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General practitioner wellbeing during the COVID-19 pandemic: a qualitative interview study

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Full title: General practitioner wellbeing during the COVID-19 pandemic: a qualitative interview study

Short title: GP interviews exploring wellbeing during COVID-19

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Abstract

Objectives

The COVID-19 pandemic presented new challenges for general practitioners' (GPs') mental health and wellbeing, with growing international evidence of its negative impact. While there has been wide UK commentary on this topic, research evidence from a UK setting is lacking. This study sought to explore the lived experience of UK GPs during COVID-19, and the pandemic's impact on their psychological wellbeing.

Design and Setting

In-depth qualitative interviews, conducted remotely by telephone or video call, with NHS GPs.

Participants

GPs were sampled purposively across three career stages (early career, established and late career or retired GPs) with variation in other key demographics. A comprehensive recruitment strategy used multiple channels. Data were analysed thematically using Framework Analysis.

Results

We interviewed 40 GPs; most described generally negative sentiment and many displayed signs of psychological distress and burnout. Causes of stress and anxiety related to personal risk, workload, practice changes, public perceptions and leadership, teamworking and wider collaboration and personal challenges. GPs described facilitators of their wellbeing, including sources of support and plans to reduce clinical hours or change career path.

Conclusions

A range of factors detrimentally affected the wellbeing of GPs during the pandemic and we highlight the potential impact of this on workforce retention and quality of care. As the pandemic progresses and general practice faces continued challenges, urgent policy measures are now needed.

Keywords: General practitioners, Wellbeing, well-being, Mental health, burnout, stress, COVID-19, coronavirus, qualitative research

Article Summary

Strengths and limitations of this study

- While there is growing international evidence base demonstrating the impact of the COVID-19 pandemic on GPs' wellbeing and much UK media coverage, this qualitative interview study provides much-needed research evidence of UK GPs' lived experiences and wellbeing during COVID-19.
- 40 GPs were sampled purposively to include GPs with different demographic and practice characteristics.
- While there are no easy solutions to the problems highlighted, this research provides increased contextualised understanding of how these experiences may impact future workforce retention and the sustainability of health systems longer-term.

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- Sub-group differences by gender and age are reported; highlighting a potential need for further research and support targeted at specific groups.
- Findings are necessarily limited to the time of data collection (Spring/Summer 2021); further tensions in general practice have since arisen, particularly regarding negative and misleading media portrayal.

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Introduction

Before the COVID-19 pandemic, rising demands on UK NHS general practitioners (GPs), including increasing work complexity and intensity and falling numbers of doctors, was leading to a growing gap between GP demand and supply.[1] 80% of all doctors participating in a BMA survey appear to be at high or very high risk of burnout ,[2] with research suggesting primary care doctors are at highest risk.[3, 4] Not only does chronic stress and burnout threaten the mental health of GPs, but it also presents challenges for the sustainability of the health care system and the quality of patient care. Pre-COVID-19, one in three GPs planned to leave medicine within five years[5] and a shortage of 2,500 GPs was estimated to increase to 7,000 within five years if trends continued.[1] The link between doctor wellbeing and patient safety has been demonstrated in a systematic review,[6] while in general practice specifically, lower wellbeing has been associated with increased likelihood of reporting 'near miss' events and worse perceptions of patient safety.[7]

Clear new risks to workforce wellbeing occurred during the pandemic: GPs have experienced rapid change, risks of infection, remote working and reductions in face-to-face patient care. A growing international research evidence base has explored the impact of the pandemic on healthcare workforce wellbeing.[8-14] Indeed, 31 studies in general practice were included in a recent systematic review of international literature.[15] While these studies highlight pressures during the pandemic and impact on GPs' psychological wellbeing, just three research studies including UK GPs were identified. One of these studies explores experiences of GPs with long-COVID, one focuses on one geographical location, and one presents the findings of UK GPs alongside other countries.

We sought to address this evidence gap, by exploring the lived experience of UK GPs during COVID-19, and the pandemic's impact on their psychological wellbeing.

Method

We adopted an exploratory qualitative methodology, conducting qualitative interviews to understand UK GPs' lived experiences and wellbeing during COVID-19. While our analytical approach was inductive in nature and a pre-defined theoretical framework was not imposed, our approach was guided by our existing knowledge of relevant literature. We interpret our findings within the policy context using the ABC of doctors' needs,[16] which is based on Deci and Ryan's self-determination theory.[17]

Interviews were semi-structured in nature, using topic guides to explore GPs' wellbeing during the pandemic, encouraging reflections on their working lives and wellbeing before the pandemic, views around challenges during the pandemic, facilitators of improved working practices, future intentions, motivations and thoughts on how to improve GPs' working lives.

Patient and public involvement

A multidisciplinary team developed and piloted topic guides in consultation with an expert panel comprising several GPs and a project steering committee consisting of international experts in organisational psychology, NHS mental health and senior Royal College of General Practitioner (RCGP) representatives. Three patient representatives were also involved in the design and implementation of this research.

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Sampling and recruitment

We sampled GPs purposively across three career stages: 'early-career GPs' (in final stages of training and first five years of practice); 'established GPs' and 'late-career GPs (including retired GPs returning to practice during COVID-19). We sampled for variation in key demographics including ethnicity, age, gender, contract type and local area characteristics (geographical spread, deprivation level and COVID-19 rates) using a comprehensive, multi-channel recruitment strategy. We received a good response through social media dissemination, but to ensure variety and reduce potential bias we also recruited through our regional deanery, local and national networks, respondents to the GP Work Life Survey and the RCGP late-career and recently retired group.

Potential participants were asked to complete a brief survey to provide contact details and basic demographic information, and sent Consent Forms and Participant Information Leaflets explaining the nature and rationale for the research. GPs meeting the sampling framework were contacted to arrange virtual interviews, conducted by LJ and CH via zoom or telephone. Informed verbal consent was obtained prior to commencing interviews. To thank participants for their time, we provided a £100 payment.

Analysis

We used transcriptions and recordings to analyse data thematically, facilitated using NVivo 12 data sorting software (QSR International Pty Ltd, 2018). Our approach to analysis was inductive, with themes emerging from the data rather than using pre-specified theory. We used Framework Analysis[18] following the steps described in Table 1. Two researchers (LJ and CH) coded the interviews independently, checking a 20% sample for consistency. Qualitative researchers met weekly to enable triangulation; refining the coding framework as analysis progressed. No member checking was needed.

Reflexivity

We maintained a reflexive approach throughout the design and analysis stages to limit potential for preconceptions to influence research findings. All researchers were female, with non-medical backgrounds. We undertook researcher triangulation (during data collection and analysis) and discussed findings with a committee of experts, GPs and patients.

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Table 1: Process of Framework Analysis

Stage of Analysis	Description
Managing the data	We managed transcriptions using Nvivo 12 software (QSR International Pty Ltd, 2018) to supplement the researchers' analytical thinking and familiarisation with the data.
Familiarisation	Both researchers (CH and LJ) that undertook interviews immersed themselves in the data by reading and re-reading transcripts, listening to audio recordings and producing detailed notes for each interview in order to help facilitate the following analysis stages.
Identifying a thematic framework	Researchers independently developed two thematic frameworks and met on multiple occasions to discuss and refine these into one thematic framework. This was tested on 4 transcripts prior to use, and further iterations continued to be made through discussion with the study team as the coding developed.
Indexing the data	Both researchers then indexed, or coded the interview data according to 10 themes and 95 subthemes which were identified in the thematic framework. Data were re-coded where needed whenever revisions to the coding framework were made.
Charting	Once coding was complete, we explored the relationships between themes using mindmaps, research team discussions and creation of overarching themes, or 'supercodes.' This process identified six overarching themes made up of 30 subthemes. We also explored categories of participants, particularly focusing on relationships between career stage, gender, job role, ethnicity, previous or current experience of mental illness and working in a deprived geographical area. We used count data to explore potential trends in analysis, though this did not replace in-depth qualitative analysis of the data, which was facilitated through mapping themes according to these key characteristics.
Mapping and interpretation	In order to go beyond the purely descriptive account of the data and develop wider meanings about links between phenomena and subgroups of participants, we mapped themes to build patterns in the data, bearing in mind the original research objectives and also exploring negative or deviant cases to explore alternative explanations for the data.

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Results

Sample characteristics

Interviews with 40 GPs took place between March and June 2021, lasting between 43 and 72 minutes. Participants were from a range of career stages: 13 'early career', 19 'established' and 8 'late-career' or retired GPs. This is reflected in the spread of ages detailed in Table 2 (Table 3 provides individual participant characteristics). Twenty GPs were aged 30-39, and we interviewed more women than men (29/40). There was a slightly higher proportion of white GPs in our sample to those reported nationally (67.5% compared to 56.6% nationally[19]). We interviewed more salaried GPs (17) than other job roles, followed by GP partners (14). GPs in our sample worked between 1 and 8 clinical sessions per week (median 6, interquartile range 3.63) and almost half of participants (n=18) also held additional roles alongside their clinical workload (e.g. practice management, teaching, research, mentoring, national or local leadership roles). Six were working as locum GPs or undertook additional locum work. Four GPs reported having had a confirmed COVID-19 diagnosis and a further eight suspected having had COVID-19 when testing was not available at the start of the pandemic. 10 participants were working in areas of high deprivation, nine in areas with pockets of deprivation, four worked in rural or semi-rural locations and four described serving a large elderly population. Though we sampled according to a purposive sampling strategy, data saturation was reached.

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Table 2: Participant characteristics

Career stage	N	(%)
Early	13	32.5
Established	19	47.5
Late	8	20.0
Gender		
Male	11	27.5
Female	29	72.5
Age		
< 30	3	7.5
30 - 39	20	50.0
40 - 49	9	22.5
50 - 59	6	15.0
>60	2	5.0
Ethnicity		
Ethnic minority Groups	10	25.0
White British	27	67.5
White non-British	3	7.5
Location		
England - East	3	7.5
England - London	5	12.5
England - North East	1	2.5
England - North West	3	7.5
England - South East	3	7.5
England - South West	4	10.0
England - West Midlands	5	12.5
England - Yorkshire and Humber	14	35.0
Northern Ireland	2	5.0
Job role		
GP trainee	6	15.0
GP retainer	1	2.5
Salaried GP	17	42.5
GP partner	14	35.0
Retired GP	2	5.0
Clinical sessions		
Median (IQR)	6 (3.63)	
1-4	11	27.5
5-7	16	40.0
≥8	9	22.5
Retired	2	5.0
Unknown	2	5.0
Portfolio roles	18	45.0
Area demographics		
Highly deprived	10	25.0
Pockets of deprivation	9	22.5
Rural or semi-rural	4	10.0
Large elderly population	4	10.0
COVID history		
Suspected COVID	8	20.0
COVID diagnosis	4	10.0

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Table 3: Participant characteristics and descriptive IDs.

Descriptive ID	Career stage	Age	Ethnicity	Gender	Role	Region
GP1,MpartnerEst	Established	30 - 39	White British	Male	GP partner	England - Yorkshire & Humber
GP2,FsalariedEst	Established	30 - 39	White British	Female	Salaried GP	England - Yorkshire & Humber
GP3,FpartnerLate	Late	50 - 59	White British	Female	GP partner	England - North East
GP4,MsalariedEarly	Early	30 - 39	White British	Male	Salaried GP	England - Yorkshire & Humber
GP5,FsalariedEst	Established	40 - 49	White British	Female	Salaried GP	England - North West
GP6,FsalariedEarly	Early	30 - 39	Asian British	Female	Salaried GP	England - Yorkshire & Humber
GP7,MpartnerLate	Late	50 - 59	Asian / Asian British - Pakistani	Male	GP partner	England - Yorkshire & Humber
GP8,FsalariedEarly	Early	30 - 39	White British	Female	Salaried GP	England - Yorkshire & Humber
GP9,FpartnerEst	Established	40 - 49	White British	Female	GP partner	England - Yorkshire & Humber
GP10,FtraineeEarly	Early	< 30	Asian / Asian British - Indian	Female	GP trainee	England - London
GP11,FsalariedEst	Established	30 - 39	Asian / Asian British - Pakistani	Female	Salaried GP	England - West Midlands
GP12,MtraineeEarly	Early	< 30	White British	Male	GP trainee	Northern Ireland
GP13,FtraineeEarly	Early	30 - 39	White - Irish	Female	GP trainee	Northern Ireland
GP14MpartnerEst	Established	30 - 39	Asian / Asian British - Indian	Male	GP partner	England - West Midlands
GP15,FretainerEarly	Early	30 -39	White British	Female	GP retainer	England - Yorkshire & Humber
GP16,MsalariedEarly	Early	30 - 39	White British	Male	Salaried GP	England - West Midlands
GP17,Mretired	Late	>60	White British	Male	Retired GP partner	England - South East
GP18,FpartnerLate	Late	50 - 59	White - Other	Female	GP partner	England - North West
GP19,FpartnerLate	Late	50 - 59	White British	Female	GP partner	England - South West
GP20,FtraineeEarly	Early	30 - 39	White British	Female	GP trainee	England - Yorkshire & Humber
GP21,FsalariedEst	Established	40 - 49	Other ethnic group - Arab	Female	Salaried GP	England - West Midlands
GP22,FsalariedEst	Established	30 - 39	White British	Female	Salaried GP	England - South West
GP23,FsalariedLate	Late	50 - 59	White British	Female	Salaried GP	England - East
GP24,FpartnerLate	Late	50 - 59	White British	Female	GP partner	England - South West
GP25,FsalariedEst	Established	40 - 49	Asian / Asian British - Indian	Female	Salaried GP	England - London
GP26,FtraineeEarly	Early	30 - 39	White British	Female	GP trainee	England - Yorkshire & Humber
GP27,MpartnerEst	Established	40 - 49	White British	Male	GP partner	England - Yorkshire & Humber
GP28,MsalariedEarly	Early	30-39	White British	Male	Salaried GP	England - London
GP29,FtraineeEarly	Early	30 -39	Asian	Female	GP trainee	England - East
GP30,FpartnerEst	Established	40 - 49	White British	Female	GP partner	England - North West
GP31,FsalariedEst	Established	40 - 49	White British	Female	Salaried GP	England - South East
GP32,MpartnerEst	Established	40 - 49	White British	Male	GP partner	England - West Midlands
GP33,FsalariedEst	Established	30- 39	Black - African	Female	Salaried GP	England - London
GP34,FsalariedEst	Established	30 - 39	White British	Female	Salaried GP	England - South West
GP35,FpartnerEst	Established	30 - 39	White British	Female	GP partner	England - East
GP36,FpartnerEst	Established	30 - 39	White British	Female	GP partner	England - Yorkshire & Humber
GP37,MpartnerEst	Established	40 - 49	White British	Male	GP partner	England - Yorkshire & Humber
GP38,FsalariedEst	Established	30 - 39	Asian / Asian British - Pakistani	Female	Salaried GP	England - South East
GP39,FsalariedEarly	Early	<30	White British	Female	Salaried GP	England - Yorkshire & Humber
GP40,Fretired	Late	>60	White - Other	Female	Retired GP partner	England - London

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Thematic findings

Overarching themes highlighting 1) the impact of the pandemic on GPs' psychological wellbeing, 2) causes of stress and anxiety and 3) facilitators that improved GPs' working lives are described. These are displayed graphically in Figure 1.

Psychological wellbeing

GPs talked about low motivation, dissatisfaction with work, frustration and anger during interviews, which they described as having been particularly difficult during the winter of 2020. For some this related to general stress of the pandemic (social isolation, lack of enjoyment in things and pressures of home-schooling). Work-related feelings of stress and anxiety were, however, very widely expressed. Often referred to as being overwhelmed, GPs described their work as *"all consuming"* (GP2,FsalariedEst) and having a *"background level of anxiety"* (GP3,FpartnerLate).

Causes of stress and anxiety altered during the course of the pandemic. At the start of the pandemic many commented on concerns around managing adaptations to work (e.g. movement to remote working and development of hot sites), but also dealing with uncertainty around what lay ahead. GPs described fear of the unknown and potential risk to themselves and their families. Anxiety increased as levels of unmet patient need grew from the autumn of 2020 onwards; there were concerns about future demand, as well as support available for patients' mental and physical needs.

Five GPs reported having clinically diagnosed mental health problems; all were female (though with variation in age and job roles). One GP described her experience, which displayed signs characteristic of burnout, and needing to take time off to recover:

> *"You're just filling and filling the bucket, and at some point it will overspill. And you've just got to hope that you don't miss something really important… So I want to remove myself from that situation for at least a period of time, just while I rebuild my armour I suppose and see if I want to do it again." GP34,FsalariedEst*

Many GPs described the negative impact on their families and relationships, and held concerns about quality of patient care due to increasing impatience or fear of making mistakes due to extreme fatigue. Difficulties with sleep and fatigue were common. Three GPs (one of whom experienced long COVID) described difficulties with concentration, resulting in driving incidents.

Stigma and presenteeism

GPs tended to downplay experiences of stress and, despite the impact on their mental wellbeing, many did not seek formal support:

> *"I am normally very 'just get on with it' in life. I massively took a dive. Just very anxious, not in a way that I needed any kind of help… but just completely changed who I was. I was a bit of a mess, much like most of us were." GP26,FtraineeEarly*

GPs described reluctance to seek support because of stigma and guilt from taking time off as this would burden their colleagues without a *"buffer in the system"* (GP3,FpartnerLate). All had worked additional clinical sessions to cover absences, which increased during the pandemic due to mental

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wellbeing or self-isolation of colleagues. This appeared more problematic for GP partners and smaller practices.

> *"I think we all were put under huge stress and people have gone off sick that have never been sick. And I think people have just cracked up basically, but the trouble is, it's like a domino effect" GP24,FpartnerLate*

Positive emotions

Approximately half of participants (17/40) expressed some positive comments when reflecting on their wellbeing during the pandemic. Many of these related to their enjoyment of work and doing a job they loved. Four recently qualified GPs welcomed the challenge and ability to 'step up' during the pandemic.

Causes of stress and anxiety

Personal risk

Most interviewees reported fear of putting themselves and family members at risk, particularly at the start of the pandemic. GPs in high risk categories (older GPs, GPs from minority ethnic groups or those with asthma) described particular concerns. For example, a GP from an ethnic minority group described:

> *"I didn't feel I was particularly protected in any way, you know, they just expect you to get on with it" GP7,MpartnerLate.*

Changing guidance around implementation of 'hot' sites, use of and access to PPE heightened anxiety. GPs were frustrated and felt neglected compared to hospital colleagues due to lower standards of PPE, even in COVID-19 'hot sites.'

> *"The psychiatrists were being fitted with FFP3 masks, specialist masks… working at home doing telephone reviews, and us in primary care and our district nurses… going out to visit cancer people were given flimsy surgical masks and told that these will be fine, get on with it… we felt disappointed that we were neglected" GP30,FpartnerEst*

Workload

GPs described workload issues before COVID-19, with treatment advances and shifting care out of hospitals adding pressure. The vast majority of GPs felt their workload had increased during the pandemic, reducing their wellbeing further.

> *"It's a different world, isn't it? I mean I think I thought I was busy [before COVID], but I didn't have a clue what busy was, basically. I just can't believe the workload explosion since COVID... it was stressful [before COVID], but I had my head above water." GP24,FpartnerLate*

Working 12-14 hour days and additional unpaid administration sessions were commonplace. Patient demand for urgent on-the-day appointments was described as unmanageable, and practices also struggled to meet 'non-urgent' demand within reasonable timeframes.

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> *"So most days there were 50 or 60 contacts on that appointment list where the RCGP says that they reckon the safe limit is about 30. So probably double." GP8,FsalariedEarly*

GP partners, in particular, commented on increases in administrative workload at the start of the pandemic; reading and implementing sometimes contradictory guidance from multiple sources which evolved daily. At the start of the pandemic, though, the increased management workload was balanced by initial reduced patient demand. Management workload increased again during the planning and implementation of the vaccination programme, with additional time pressures from cleaning and PPE measures.

GPs reflected that patient demand became most challenging from the end of summer 2020 onwards, particularly from late presentations with more serious pathologies; leading to greater workload and emotional strain. Higher demand from patients with mental health problems also increased workload, alongside difficulties in consulting these patients remotely and lack of support services:

> *"Our mental health service is shocking… mental health services play ping pong between themselves… IAPT say, oh, too severe for us, and the secondary care mental health service say, oh, no, not severe enough for us, we're not dealing with that. And then they just fall into this black hole." GP35,FpartnerEst*

Practice changes

Participants described the many changes that the pandemic had brought about, including new triage systems, use of remote consultations, the vaccination rollout and changes for trainees. Some associated these changes with stress and increased workload, but there was a general sentiment that the pandemic had provided a positive impetus for technological development. GPs described the importance of triage systems for prioritisation and reallocating patients during staff absences. E-consultation systems were perceived to increase demand due to greater accessibility:

> *"Now eConsults have come in there's no barrier… there'll be 200 eConsults on a Monday that we have to deal with as well as all the other general practice workload and the vaccination programme and PCNs, and it's just really unsustainable and unsafe." GP30,FpartnerEst*

There were mixed emotions around the movement to telephone and video consultations, which were viewed positively for minor conditions, reducing attendances and enabling more focused face-to-face appointments. GPs in multi-site practices covering large geographical areas described their increased ability to share workload across practices. GPs also described feeling isolated, 'decision fatigue' and felt that consultations lacked personal contact with patients, which had encouraged their career choice. While telephone consultations were well-received amongst younger and working patients, there were concerns around inequalities in access and potential missed diagnoses. These concerns were particularly expressed by trainee and early-career GPs.

Vaccination rollout

The vaccination programme was described as a great morale booster, coming at a time when many GPs and the wider public needed hope. GPs described working additional hours to manage vaccinations, but with a sense of teamwork and pride.

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> *"There was a point when we were doing the 80 year olds where you had to vaccinate 14 people to save one life. And I'm feeling tearful about it even now. Like just the actual practical difference that you could make in a terrible situation." GP34,FsalariedEst*

Practices had also faced workload increases due to patient queries about vaccinations and GPs expressed frustration with public messaging around the vaccination rollout.

Public perceptions and leadership

Negative public perceptions of general practice greatly impacted GPs' wellbeing and was one of the most widely cited causes of stress. Patients facing problems with access or referrals became increasingly frustrated, and GPs felt this was fuelled by negative media portrayals, described by participants as *"GP bashing."* GPs described *"simmering discontent amongst communities"* (GP28,MsalariedEarly) who they felt had been *"whipped up to a frenzy by the government and by the media"* (GP24,FpartnerLate).

Sixteen GPs described positively the outpouring of appreciation for NHS workers at the beginning of the pandemic, but most felt that public appreciation was eroded due to inaccurate messaging from the government, NHS England and the media about general practice being closed:

> *"That was really upsetting at one point, thinking that people thought we were closed. I was like, I've been working my socks off, I've been working at COVID hubs or I've been doing back-to-back telephone consulting... no matter what we do or what we try, people just assume that we're not working hard enough." GP10,FtraineeEarly*

GPs expressed frustration around national decision-making, which they felt had directly risked NHS capacity and heightened anxiety in anticipation of repeat waves of the pandemic. Communication about delays in out-patient appointments and routine surgery was seen as vital, as were government campaigns encouraging health awareness about common illnesses and more signposting to appropriate specialists.

Retired GPs described lengthy bureaucratic processes prohibiting them from returning to practice; certain training requirements were viewed as unnecessary for remote working and one described the process taking two months. Two volunteered to support practices and vaccinations, but their offers were declined.

Wider collaboration

17/40 interviewees felt that the pandemic offered opportunities to foster collaboration across Primary Care Networks (PCNs), hospitals, community and wider services. A greater sense of camaraderie and improved working across PCNs was reported, with groups of practices 'pulling together' during the vaccine rollout.

A minority (2/40) reported greater access to specialist support from hospitals, with 12 GPs describing conflict between primary and secondary care. Lengthy hospital waiting lists and some service closures increased workload for GPs, who felt they were the only support for some high-risk patients:

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> *"Eating disorder services stopped. They just stopped. So for a nine month period any new referrals, you couldn't refer. And there wasn't an alternative. So we set up a high risk list to look after the highest risk eating disorders patients. … Mental health services, closed to routine referrals. They would only see suicidal people." GP34,FsalariedEst*

General practice teams

Experiences and perceptions of the effectiveness of practice teams varied, affecting GP wellbeing and ability to cope with challenges. Isolation from teams was problematic particularly for early-career GPs who lacked support and found it difficult to integrate. Concerns were raised around trainees' wellbeing, feeling that they had been used *"as cannon fodder"* in frontline hospital roles and had faced much disruption to their training. Disproportionate numbers of women raised difficulties with teams (15/18 GPs).

30/40 GPs cited examples of good teamworking and described a sense of pulling together during the pandemic. An increased focus on personal and team mental wellbeing was reported, though some participants were disenchanted with initiatives that sought to improve 'resilience' as they felt that this placed the onus of responsibility at an individual rather than structural level. Others suggested wellbeing support was perhaps more easily adopted by larger practices with greater infrastructure. Team 'huddles' were used to debrief on complex cases, provide social support and share anxieties, but small rooms and safe distancing in some practices prohibited staff meetings. Shared breaks provided opportunities to raise difficulties informally, which was important to some who felt less inclined to seek formal support either due to workload pressures or stigma.

Personal challenges

Negative financial impacts of the pandemic were described by five GPs, mostly due to reduced availability of locum work, though one GP from a University practice described a reduction in practice earnings and associated stress due to reduced student/patient numbers. Challenges of home-schooling and reduced access to childcare were discussed by 14 GPs (12/14 were women), who described juggling telephone consultations and administrative work with childcare:

> *"So I was at home trying to get through more patients than normal remotely, trying to learn the technology and I had my children at home, so it was huge. I can remember feeling just running on adrenaline and just feeling constantly stressed." GP30,FpartnerEst*

Facilitators

Informal and formal support

Interviewees sought informal support through family and friends (28/40), colleagues (29/40) and peers (15/40). They described the benefits of talking to other medics who could relate to their experiences; this was particularly important to trainees, some of whom were isolated from family and other networks. There appeared to be good awareness of the different formal support structures available; ranging from coaching and mentoring support (used by 13/40) to more formal mental health support. Only two male participants discussed using these support services, and, similarly, gender differences were apparent in discussion of approaches to 'self-care'; only three of 17 GPs discussing these techniques were male.

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Reducing clinical hours and future plans

Eight GPs (6/8 women) discussed reducing their clinical sessions or developing portfolio careers in order to manage work pressure and support wellbeing. There was greater variation in the number of clinical sessions reported by women (median: 6, interquartile range: 3.0) than men (median 6, interquartile range 1.88) as some women had low numbers of clinical sessions, described as a reaction to risk of burnout and seeking work-life balance.

Portfolio careers (e.g. including teaching and mentoring) provided an opportunity to achieve greater balance, while others planned to specialise, become locums, work abroad or retire. GPs were concerned about retention, particularly of those approaching retirement. Greater use of retainer schemes or a phased retirement stage were seen as opportunities to reduce workload, stress and retain GPs.

Discussion

Summary

Our interviewees offered in-depth accounts of their experiences during the COVID-19 pandemic, highlighting an exacerbation of prior difficulties which, for some, had led to dissatisfaction with work and mental health problems. Some GPs planned to reduce their clinical or overall working hours, take on locum work, work abroad or retire. GPs described feelings characteristic of burnout and raised concerns around quality of patient care.

Pressures changed as the pandemic evolved. Early on, GPs experienced stress, rapid change, uncertainty and personal risks, but this time also catalysed technological change. Later, GPs faced anxiety relating to unmet patient need, delayed presentations and growing demand, particularly for mental health support, while negative patient perceptions and media portrayal of practices being 'closed' during this time increased GPs' work stress and reduced job satisfaction. There were calls for improved public relations from leadership bodies in order to counteract inaccuracies in the media and to improve health literacy, particularly as uptake of e-consultation services was perceived as increasing patient demand.

A greater sense of camaraderie and working across PCNs was reported, particularly with vaccination delivery. Effective team-working was seen as vital and GPs welcomed an increasing focus on wellbeing. They also, however, described a culture of presenteeism; exacerbated during the pandemic due to staff absences and, for some, a sense of stigma around doctors' mental health.

Comparison with existing literature

While this research outlines key sources of stress for GPs that have been the subject of much recent commentary, to our knowledge this is the first reported qualitative study focused on UK GPs' psychological wellbeing during the pandemic and this research also offers insights into potential subgroup variations. International literature highlights similar trends in GP wellbeing during the pandemic - doctors from varied settings report increased rates of burnout, related to high workload, job stress, time pressure and limited organisational support.[15,20] International studies have found

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higher stress in general practice doctors compared to other healthcare workers and settings.[10, 21, 22] The expanding public commentary and campaigns from UK doctor groups highlight the need to support the GP workforce.[23]

Subgroup variations in GPs' experiences are important to understand as the pandemic progresses and workforce pressures continue. Our research revealed different effects on men and women GPs and different use of support services. This is consistent with international literature which reports gender differences in stress, burnout, anxiety and depression[9, 21, 22, 24-27] and greater job strain amongst women in dual-doctor marriages during the pandemic.[28] These differences may arise as a result of gendered social norms around willingness to disclose difficulties, or due to socially constructed gender roles in the home that proliferated during COVID-19 lockdowns, negatively impacting women in employment.[29, 30] Our research also suggests gender differences may exist in GPs' perceptions around effective teamworking; perhaps highlighting women's differential support needs or expectations. Women may require targeted interventions to support their wellbeing and encourage continued participation, particularly as they were more likely to report future plans to reduce clinical sessions or adopt portfolio roles. GP partners may also require targeted support as they described greater pressures associated with management workload due to changes to service delivery, staff shortages and vaccination rollout, which supports other recent studies showing an association between older age and higher stress in GPs.[25, 31, 32] Further research may be needed to explore recently qualified and trainee GPs' experiences as our findings suggest they have faced differing challenges that may affect longer-term retention and wellbeing.

Strength and limitations

This research provides rich and contextualised understanding of the experiences of a varied sample of GPs during the pandemic, which our recent systematic review (currently under review) identified as lacking from a UK setting. While there may be selection bias in the views expressed by GPs willing to share experiences, our interview findings are consistent with other international research and wider commentary on this topic. Our findings are necessarily limited to the time of data collection (Spring/Summer 2021); further tensions in general practice have since arisen, particularly regarding negative and misleading media portrayal.[33]

Implications for research, policy and practice

This research demonstrates the effect of the pandemic on GP wellbeing, with potential wider impacts, for example around workforce retention and patient safety; highlighting a need for national and local intervention. Using Deci and Ryan's self-determination theory[17], a recent GMC report[16] described the *"ABC of doctors' needs",* advising that doctors' sense of autonomy, belonging and competence need to be promoted for them to thrive in their working lives. All three components have been threatened during the pandemic. GPs' ability to control and influence their work has reduced, and patient frustrations and media blaming of GPs has affected their sense of belonging and competence. There is a need for policy to support GPs, prevent work stress and foster collaborations across wider teams.

Further research could explore these findings more widely through quantitative methods, preferably with some comparison with pre-pandemic wellbeing scores. E-consultation systems, which appear to have increased demand, could be further evaluated, as should planned schemes to supplement the

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GP workforce with other non-medical staff through the Additional Roles Reimbursement Scheme that formed part of recent GP contract revisions.[34]

Conclusion

The COVID-19 pandemic created some positive impacts on general practice - changing working systems, increasing wider team-working and placing a spotlight on staff wellbeing. Nevertheless, a range of factors affected the wellbeing of GPs detrimentally during the pandemic, and substantial challenges to GPs remain. This could affect workforce retention, quality of care and the sustainability of health systems longer-term. Targeted support strategies may be required to address the subgroup variations, particularly the apparently more detrimental effects on women and on early-career GPs.

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Author contributions

This study was designed and conceived by LJ and KB. LJ and CH conducted interviews and qualitative analysis. LJ wrote the first draft of this manuscript, to which all authors commented. All authors have read and agreed the final version.

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Competing interests

None declared

Ethical considerations

Department of Health Sciences Research Ethics Committee (REC) approval was granted in November 2020 (HSRGC/2020/SC/001). NHS ethical and Health Research Authority approval was not required as we studied the experiences of staff recruited through methods not involving NHS organisations.

Data Statement

Materials and data used for the conduct of this research are available from the study authors on request.

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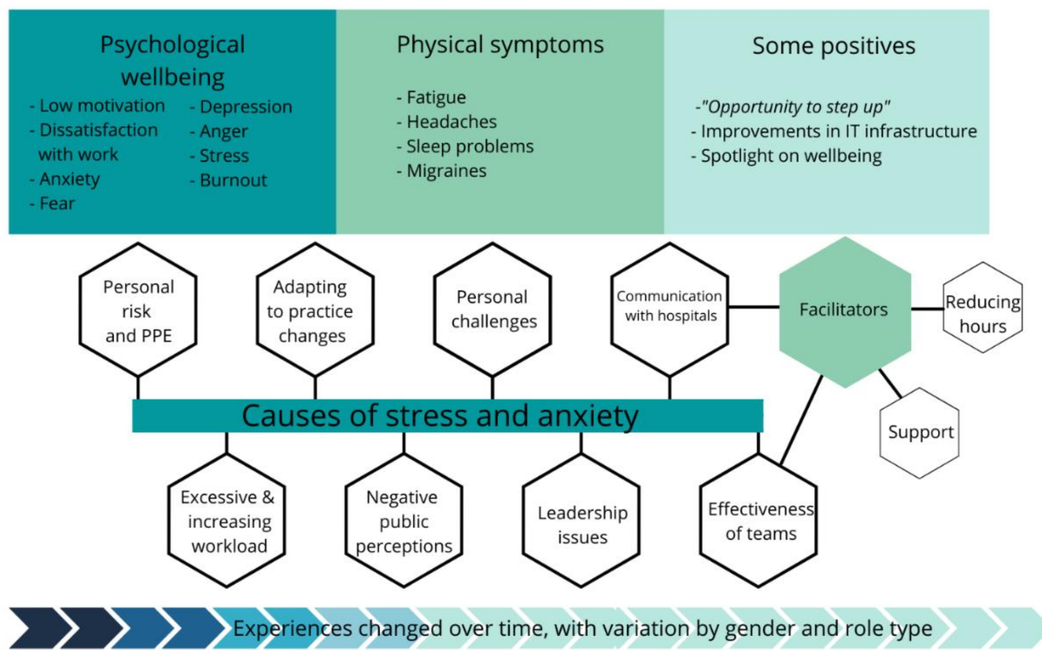
Figure 1: Graphical representation of the study findings.



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Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

Please indicate in which section each item has been reported in your manuscript. If you do not feel an item applies to your manuscript, please enter N/A.

For further information about the COREQ guidelines, please see Tong *et al.*, 2017: https://doi.org/10.1093/intqhc/mzm042

No.	Item	Description	Section #
Domain 1: Research team and reflexivity			
Personal characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	
2.	Credentials	What were the researcher's credentials? *E.g. PhD, MD*	
3.	Occupation	What was their occupation at the time of the study?	
4.	Gender	Was the researcher male or female?	
5.	Experience and training	What experience or training did the researcher have?	
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? *E.g. Personal goals, reasons for doing the research*	
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? *E.g. Bias, assumptions, reasons and interests in the research topic*	
Domain 2: Study design			
Theoretical framework			
9.	Methodological orientation and theory	What methodological orientation was stated to underpin the study? *E.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis*	
Participant selection			
10.	Sampling	How were participants selected? *E.g. purposive, convenience, consecutive, snowball*	
11.	Method of approach	How were participants approached? *E.g. face-to-face, telephone, mail, email*	
12.	Sample size	How many participants were in the study?	
13.	Non-participation	How many people refused to participate or dropped out? What were the reasons for this?	
Setting			
14.	Setting of data collection	Where was the data collected? *E.g. home, clinic, workplace*	
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	

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16.	Description of sample	What are the important characteristics of the sample? *E.g. demographic data, date*	
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	
20.	Field notes	Were field notes made during and/or after the interview or focus group?	
21.	Duration	What was the duration of the interviews or focus group?	
22.	Data saturation	Was data saturation discussed?	
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	
25.	Description of the coding tree	Did authors provide a description of the coding tree?	
26.	Derivation of themes	Were themes identified in advance or derived from the data?	
27.	Software	What software, if applicable, was used to manage the data?	
28.	Participant checking	Did participants provide feedback on the findings?	
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? *E.g. Participant number*	
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	
31.	Clarity of major themes	Were major themes clearly presented in the findings?	
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	

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Developed from: Allison Tong, Peter Sainsbury, Jonathan Craig, Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups, International Journal for Quality in Health Care, Volume 19, Issue 6, December 2007, Pages 349–357, https://doi.org/10.1093/intqhc/mzm042

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Full title: General practitioner wellbeing during the COVID-19 pandemic: a qualitative interview study

Short title: GP interviews exploring wellbeing during COVID-19

For peer review only

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Word count: 4830

Abstract

Objectives

The COVID-19 pandemic presented new challenges for general practitioners' (GPs') mental health and wellbeing, with growing international evidence of its negative impact. While there has been wide UK commentary on this topic, research evidence from a UK setting is lacking. This study sought to explore the lived experience of UK GPs during COVID-19, and the pandemic's impact on their psychological wellbeing.

Design and Setting

In-depth qualitative interviews, conducted remotely by telephone or video call, with NHS GPs.

Participants

GPs were sampled purposively across three career stages (early career, established and late career or retired GPs) with variation in other key demographics. A comprehensive recruitment strategy used multiple channels. Data were analysed thematically using Framework Analysis.

Results

We interviewed 40 GPs; most described generally negative sentiment and many displayed signs of psychological distress and burnout. Causes of stress and anxiety related to personal risk, workload, practice changes, public perceptions and leadership, team working and wider collaboration and personal challenges. GPs described facilitators of their wellbeing, including sources of support and plans to reduce clinical hours or change career path, and some described the pandemic as offering a catalyst for positive change.

Conclusions

A range of factors detrimentally affected the wellbeing of GPs during the pandemic and we highlight the potential impact of this on workforce retention and quality of care. As the pandemic progresses and general practice faces continued challenges, urgent policy measures are now needed.

Keywords: General practitioners, Wellbeing, well-being, Mental health, burnout, stress, COVID-19, coronavirus, qualitative research

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Article Summary

Strengths and limitations of this study

- While there is growing international evidence demonstrating the impact of the COVID-19 pandemic on GPs' wellbeing and much UK media coverage, this qualitative interview study provides much-needed research evidence of UK GPs' lived experiences and wellbeing during COVID-19.
- 40 GPs were sampled purposively to include GPs with different demographic and practice characteristics.
- While there are no easy solutions to the problems highlighted, this research provides contextualised understanding of how these experiences may impact future workforce retention and the sustainability of health systems longer-term.
- Sub-group differences by gender and age are reported, highlighting a potential need for further research and support targeted at specific groups.
- Findings are necessarily limited to the time of data collection (Spring/Summer 2021). Further tensions in general practice have since arisen, particularly regarding negative and misleading media portrayal.

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Introduction

Before the COVID-19 pandemic, rising demands on UK NHS general practitioners (GPs), including increasing work complexity and intensity and falling numbers of doctors, was leading to GP mental health difficulties[1] and a growing gap between GP demand and supply.[2] 80% of the doctors participating in a BMA survey appear to be at high or very high risk of burnout,[3] with research suggesting primary care doctors are at highest risk.[4, 5] Not only does chronic stress and burnout threaten the mental health of GPs, it also presents challenges for the sustainability of the health care system and the quality of patient care. Pre-COVID-19, one in three GPs planned to leave medicine within five years[6] and a shortage of 2,500 GPs was estimated to increase to 7,000 within five years if trends continued.[2] The link between doctor wellbeing and patient safety has been demonstrated in a systematic review,[7] while in general practice specifically, lower wellbeing has been associated with increased likelihood of reporting 'near miss' events and worse perceptions of patient safety.[8]

Clear new risks to workforce wellbeing occurred during the pandemic: GPs experienced rapid change, risks of infection, remote working and reductions in face-to-face patient care. A growing international evidence base has explored the impact of the pandemic on healthcare workforce wellbeing.[9-15] Indeed, 31 studies in general practice were included in a recent systematic review of international literature.[16] While these studies highlight pressures during the pandemic and impact on GPs' psychological wellbeing, just three research studies including UK GPs were identified. One of these studies explores experiences of GPs with long-COVID, one focuses on one geographical location, and one presents the findings of UK GPs alongside other countries.[16]

We sought to address this evidence gap by exploring the lived experience of UK GPs during COVID-19, and the pandemic's impact on their psychological wellbeing.

Method

We adopted an exploratory qualitative methodology, conducting qualitative interviews to understand UK GPs' lived experiences and wellbeing during COVID-19. While our analytical approach was inductive in nature and a pre-defined theoretical framework was not imposed, our approach was guided by our existing knowledge of relevant literature. We interpret our findings within the policy context using Michael West's ABC of doctors' needs,[17] which highlights the importance of doctors' sense of *autonomy, belonging* and *contribution* in their working lives and is based on Deci and Ryan's self-determination theory.[18]

Interviews were semi-structured in nature, using topic guides (see Supplementary File) to explore GPs' wellbeing during the pandemic, encouraging reflections on their working lives and wellbeing before the pandemic, views around challenges during the pandemic, facilitators of improved working practices, future intentions, motivations and thoughts on how to improve GPs' working lives.

Patient and public involvement

A multidisciplinary team developed and piloted topic guides in consultation with an expert panel comprising four GPs and a project steering committee consisting of an international expert in organisational psychology, NHS mental health and two senior Royal College of General Practitioner (RCGP) representatives. Three patient representatives were also consulted during the design and implementation of this research.

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Sampling and recruitment

We sampled GPs purposively across three career stages: 'early-career GPs' (in final stages of training and first five years of practice); 'established GPs' and 'late-career GPs (including retired GPs returning to practice during COVID-19). We sampled for variation in key demographics including ethnicity, age, gender, contract type and local area characteristics (geographical spread, deprivation level and COVID-19 rates) using a comprehensive, multi-channel recruitment strategy. Our initial recruitment approach through social media (Twitter) using a project infographic and shared by leading experts in the field, proved so successful that over 40 GPs offered to participate within 24 hours. In order to obtain maximum variation in participant characteristics and reduce the potential for bias, we also recruited through communications with the Yorkshire and Humber deanery, snowballing our networks of clinicians nationally, email circulation to the RCGP late-career and recently retired group and emails directly to participants in the GP Worklife Survey who had indicated they would be willing to participate in research of this type.

Potential participants were asked to complete a brief survey to provide contact details and basic demographic information, and sent Consent Forms and Participant Information Leaflets explaining the nature and rationale for the research. GPs meeting the sampling framework were contacted to arrange virtual interviews, conducted by LJ and CH via zoom or telephone. Informed verbal consent was obtained prior to commencing interviews. We provided an honorarium to thank participants for their time.

Analysis

We used transcriptions and recordings to analyse data thematically, facilitated using NVivo 12 data sorting software (QSR International Pty Ltd, 2018). Our approach to analysis was inductive, with themes emerging from the data rather than using pre-specified theory. We used Framework Analysis[19] following the steps described in Table 1. Two researchers (LJ and CH) coded the interviews independently, checking a 20% sample for consistency and meeting weekly to enable triangulation; refining the coding framework as analysis progressed. No member checking was needed.

Reflexivity

We maintained a reflexive approach throughout the design and analysis stages to limit potential for preconceptions to influence research findings. All researchers were female, with non-medical backgrounds; it is possible that our experiences may have generated more open discussion amongst women participants or affected our interpretations of women GPs' experiences. LJ and KB's previous work on medical workplace culture and gendered norms may also have influenced this research process. To avoid the impact of such potential bias, we undertook researcher triangulation (during data collection and analysis) and consulted a committee of experts, GPs and patients in order to appropriately frame the topic guides for interviews, recruitment materials, and user-test these approaches before wider rollout. During analysis we sense-checked our findings with stakeholders and discussed these in detail to gain deeper understanding. While our analysis was inductive in nature, this research was undertaken simultaneously to our wider research projects on GP wellbeing, and is therefore underpinned by our knowledge of that evidence base.

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Table 1: Process of Framework Analysis

Stage of Analysis	Description
Managing the data	We managed transcriptions using Nvivo 12 software (QSR International Pty Ltd, 2018) to supplement the researchers' analytical thinking and familiarisation with the data.
Familiarisation	Both researchers undertaking interviews (CH and LJ) immersed themselves in the data by reading and re-reading transcripts, listening to audio recordings and producing detailed notes for each interview in order to help facilitate the following analysis stages.
Identifying a thematic framework	Researchers independently developed two thematic frameworks and met on multiple occasions to discuss and refine these into one thematic framework. This was tested on 4 transcripts prior to use, and further iterations continued to be made through discussion with the study team as the coding developed.
Indexing the data	Both researchers then indexed, or coded, the interview data according to 10 themes and 95 subthemes which were identified in the thematic framework. Data were re-coded where needed whenever revisions to the coding framework were made.
Charting	Once coding was complete, we explored the relationships between themes using mindmaps, research team discussions and creation of overarching themes, or 'supercodes.' This process identified six overarching themes made up of 30 subthemes. We also explored categories of participants, particularly focusing on relationships between career stage, gender, job role, ethnicity, previous or current experience of mental illness and working in a deprived geographical area. Qualitative analysis of the data was facilitated through mapping themes according to these key characteristics.
Mapping and interpretation	In order to go beyond the purely descriptive account of the data and develop wider meanings about links between phenomena and subgroups of participants, we mapped themes to build patterns in the data, bearing in mind the original research objectives and also exploring negative or deviant cases to explore alternative explanations.

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Results

Sample characteristics

Interviews with 40 GPs took place between March and June 2021, lasting between 43 and 72 minutes. Participants were from a range of career stages: 13 'early career', 19 'established' and 8 'late-career' or retired GPs. . Twenty GPs were aged 30-39, and we interviewed more women than men (29/40). There was a slightly higher proportion of white GPs in our sample to those reported nationally (67.5% compared to 56.6% nationally[20]). Further demographic characteristics can be found in Table 2. Though we sampled according to a purposive sampling strategy, data saturation was reached.

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Table 2: Participant characteristics

Career stage	N	(%)
Early	13	32.5
Established	19	47.5
Late	8	20.0
Gender		
Male	11	27.5
Female	29	72.5
Age		
< 30	3	7.5
30 - 39	20	50.0
40 - 49	9	22.5
50 - 59	6	15.0
>60	2	5.0
Ethnicity		
Ethnic minority Groups	10	25.0
White British	27	67.5
White non-British	3	7.5
Location		
England - East	3	7.5
England - London	5	12.5
England - North East	1	2.5
England - North West	3	7.5
England - South East	3	7.5
England - South West	4	10.0
England - West Midlands	5	12.5
England - Yorkshire and Humber	14	35.0
Northern Ireland	2	5.0
Job role		
GP trainee	6	15.0
GP retainer	1	2.5
Salaried GP	17	42.5
GP partner	14	35.0
Retired GP	2	5.0
Clinical sessions		
Median (IQR)	6 (3.63)	
1-4	11	27.5
5-7	16	40.0
≥8	9	22.5
Retired	2	5.0
Unknown	2	5.0
Portfolio roles	18	45.0
Area demographics		
Highly deprived	10	25.0
Pockets of deprivation	9	22.5
Rural or semi-rural	4	10.0
Large elderly population	4	10.0
COVID history		
Suspected COVID	8	20.0
COVID diagnosis	4	10.0

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Thematic findings

Overarching themes highlighting 1) the impact of the pandemic on GPs' psychological wellbeing, 2) causes of stress and anxiety and 3) facilitators that improved GPs' working lives are described. These are displayed graphically in Figure 1.

Psychological wellbeing

Causes of stress and anxiety altered during the course of the pandemic. Many reflected on concerns at the start of the pandemic around managing adaptations to work (e.g. movement to remote working and development of hot sites), and dealing with uncertainty around what lay ahead. GPs described fear of the unknown and potential risk to themselves and their families. Anxiety increased as levels of unmet patient need grew from the autumn of 2020 onwards; there were concerns about future demand, as well as support available for patients' mental and physical needs.

GPs talked about low motivation, dissatisfaction with work, frustration and anger during interviews, which they described as having been particularly difficult during the winter of 2020. For some this related to general stress of the pandemic (social isolation, lack of enjoyment in things and pressures of home-schooling). Work-related feelings of stress and anxiety were, however, very widely expressed. Often referred to as being overwhelmed, GPs described their work as *"all consuming"* (Female salaried GP) and having a "*background level of anxiety"* (Female GP partner).

Five GPs reported having clinically diagnosed mental health problems; all were female (though with variation in age and job roles). The following quotation displays signs characteristic of burnout:

> *"You're just filling and filling the bucket, and at some point it will overspill. And you've just got to hope that you don't miss something really important… So I want to remove myself from that situation for at least a period of time, just while I rebuild my armour I suppose and see if I want to do it again." Female salaried GP*

Many GPs described the negative impact on their families and relationships, and held concerns about quality of patient care due to increasing impatience or fear of making mistakes due to extreme fatigue. Difficulties with sleep and fatigue were common. A minority of GPs (one of whom experienced long COVID) described difficulties with concentration, resulting in driving incidents.

> *"I think the work, particularly in the last few months, has left me pretty exhausted, and, you know, I kind of come home in the afternoon, or in the evening, and I'm pretty useless to my wife, or to anyone else really." Male salaried GP*

> *"decision fatigue… towards the end of the day, I'd get a phone call at five o'clock, with someone talking about how low they're feeling, and they need a bit of support… at the end of the day, I couldn't give the same support to that patient that I perhaps would have done, if it was eight o'clock that I was speaking to them." Male salaried GP*

Stigma and presenteeism

GPs tended to downplay experiences of stress and, despite the impact on their mental wellbeing, many did not seek formal support:

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> *"I am normally very 'just get on with it' in life. I massively took a dive. Just very anxious, not in a way that I needed any kind of help… but just completely changed who I was. I was a bit of a mess, much like most of us were." Female trainee GPy*

GPs described reluctance to seek support because of stigma and guilt from taking time off as this would burden their colleagues without a *"buffer in the system"* (Female GP partner). All had worked additional clinical sessions to cover absences, which increased during the pandemic due to mental wellbeing or self-isolation of colleagues. This appeared more problematic for GP partners and smaller practices.

> *"I think we all were put under huge stress and people have gone off sick that have never been sick. And I think people have just cracked up basically, but the trouble is, it's like a domino effect" Female GP partner*

Positive emotions

Approximately half of participants expressed some element of positivity when reflecting on their wellbeing during the pandemic, though negative comments around challenges dominated discussions. Positive comments related to their enjoyment of work and seeing the pandemic as providing a catalyst for long-needed change. Some recently qualified GPs welcomed the challenge and ability to 'step up' during the pandemic.

> *"In all honesty, that time felt really positive. It felt really refreshing. It felt empowering and as though…we'd known that general practice was struggling and not fit for purpose and we knew we needed to make some changes, but no-one could agree on the changes. And we'd been having these conversations for what, ten years? And not getting anywhere. And all of a sudden overnight we had to change, and we all did and it was fine." Female salaried GP*

Causes of stress and anxiety

Personal risk

Most interviewees reported fear of putting themselves and family members at risk, particularly at the start of the pandemic. GPs in high risk categories (older GPs, GPs from minority ethnic groups or those with asthma) described particular concerns. For example, a GP from an ethnic minority group described:

> *"I didn't feel I was particularly protected in any way, you know, they just expect you to get on with it" Male GP partner.*

Changing guidance around implementation of 'hot' sites, use of and access to PPE heightened anxiety. GPs were frustrated and felt neglected compared to hospital colleagues due to lower standards of PPE, even in COVID-19 'hot sites.'

> *"The psychiatrists were being fitted with FFP3 masks, specialist masks… working at home doing telephone reviews, and us in primary care and our district nurses… going out to visit cancer people were given flimsy surgical masks and told that these will be fine, get on with it… we felt disappointed that we were neglected" Female GP partner*

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Workload

GPs described workload issues before COVID-19, with treatment advances and shifting care out of hospitals adding pressure. The vast majority of GPs felt their workload had increased during the pandemic, reducing their wellbeing further.

> *"It's a different world, isn't it? I mean I think I thought I was busy [before COVID], but I didn't have a clue what busy was, basically. I just can't believe the workload explosion since COVID... it was stressful [before COVID], but I had my head above water." Female GP partner*

Reports of working 12-14 hour days and additional unpaid administration sessions were commonplace. Patient demand for urgent on-the-day appointments was described as unmanageable, and practices also struggled to meet 'non-urgent' demand within reasonable timeframes.

> *"Most days there were 50 or 60 contacts on that appointment list where the RCGP says that they reckon the safe limit is about 30. So probably double." Female salaried GP*

GP partners, in particular, commented on increases in administrative workload at the start of the pandemic; reading and implementing sometimes contradictory guidance from multiple sources which evolved daily. At the start of the pandemic, though, the increased management workload was balanced by initial reduced patient demand. Management workload increased again during the planning and implementation of the vaccination programme, with additional time pressures from cleaning and PPE measures.

GPs reflected that patient demand became most challenging from the end of summer 2020 onwards, particularly from late presentations with more serious pathologies, leading to greater workload and emotional strain. Higher demand from patients with mental health problems also increased workload, alongside difficulties in consulting these patients remotely and lack of support services:

> *"Our mental health service is shocking… mental health services play ping pong between themselves… IAPT say, oh, too severe for us, and the secondary care mental health service say, oh, no, not severe enough for us, we're not dealing with that. And then they just fall into this black hole." Female GP partner*

Practice changes

Participants described the many changes that the pandemic had brought about, including new triage systems, use of remote consultations, the vaccination rollout and changes for trainees. Some associated these changes with stress and increased workload, but there was a general sentiment that the pandemic had provided a positive impetus for technological development. GPs described the importance of triage systems for prioritisation and reallocating patients during staff absences. E-consultation systems were perceived to increase demand due to greater accessibility:

> *"Now eConsults have come in there's no barrier… there'll be 200 eConsults on a Monday that we have to deal with as well as all the other general practice workload and the vaccination programme and PCNs, and it's just really unsustainable and unsafe." Female GP partner*

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There were mixed emotions around the movement to telephone and video consultations, which were viewed positively for minor conditions, reducing attendances and enabling more focused face-to-face appointments. GPs in multi-site practices covering large geographical areas described their increased ability to share workload across practices. GPs also described feeling isolated, 'decision fatigue' and felt that consultations lacked personal contact with patients, which had encouraged their career choice. While telephone consultations were well-received amongst younger and working patients, there were concerns around inequalities in access and potential missed diagnoses. These concerns were particularly expressed by trainee and early-career GPs.

Vaccination rollout

The vaccination programme was described as a great morale booster, coming at a time when many GPs and the wider public needed hope. GPs described working additional hours to manage vaccinations, but with a sense of teamwork and pride.

> *"There was a point when we were doing the 80 year olds where you had to vaccinate 14 people to save one life. And I'm feeling tearful about it even now. Like just the actual practical difference that you could make in a terrible situation." Female salaried GP*

Practices had also faced workload increases due to patient queries about vaccinations and GPs expressed frustration with public messaging around the vaccination rollout.

Public perceptions and leadership

Despite the initial public appreciation for the NHS at the start of the pandemic, GPs described how this had been eroded at the time of conducting our interviews with negative public perceptions of general practice greatly impacting GPs' wellbeing and one of the most widely cited causes of stress. Patients facing problems with access or referrals became increasingly frustrated, and GPs felt this was fuelled by negative media portrayals, described by participants as *"GP bashing."* GPs described *"simmering discontent amongst communities"* (Male salaried GP) who they felt had been *"whipped up to a frenzy by the government and by the media"* (Female GP partner).

Several GPs described positively the outpouring of appreciation for NHS workers at the beginning of the pandemic, but most felt that public appreciation was eroded due to inaccurate messaging from the government, NHS England and the media about general practice being closed:

> *"That was really upsetting at one point, thinking that people thought we were closed. I was like, I've been working my socks off, I've been working at COVID hubs or I've been doing back-to-back telephone consulting… no matter what we do or what we try, people just assume that we're not working hard enough." Female trainee GP*

GPs expressed frustration around national decision-making, which they felt had directly risked NHS capacity and heightened anxiety in anticipation of repeat waves of the pandemic. Communication about delays in out-patient appointments and routine surgery was seen as vital, as were government campaigns encouraging health awareness about common illnesses and more signposting to appropriate specialists.

Retired GPs described lengthy bureaucratic processes at the start of the pandemic which prohibited them from returning to practice; certain training requirements were viewed as unnecessary for

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remote working and one described the process taking two months. Two volunteered to support practices and vaccinations, but their offers were declined.

Wider collaboration

Almost half of the interviewees felt that the pandemic offered opportunities to foster collaboration across Primary Care Networks (PCNs), hospitals, community and wider services. A greater sense of camaraderie and improved working across PCNs was reported, with groups of practices 'pulling together' during the vaccine rollout.

A minority reported greater access to specialist support from hospitals and some actually described conflict between primary and secondary care. This related to lengthy hospital waiting lists and some service closures increased workload for GPs, who felt they were the only support for some high-risk patients:

> *"Eating disorder services stopped. They just stopped. So for a nine month period any new referrals, you couldn't refer. And there wasn't an alternative. So we set up a high risk list to look after the highest risk eating disorders patients. … Mental health services, closed to routine referrals. They would only see suicidal people." Female salaried GP*

General practice teams

Experiences and perceptions of the effectiveness of practice teams varied, affecting GP wellbeing and ability to cope with challenges. Isolation from teams was problematic particularly for early-career GPs who lacked support and found it difficult to integrate. Concerns were raised around trainees' wellbeing, feeling that they had been used *"as cannon fodder"* in frontline hospital roles and had faced much disruption to their training. Disproportionate numbers of women raised difficulties with teams.

The majority of GPs cited examples of good teamworking and described a sense of pulling together during the pandemic. An increased focus on personal and team mental wellbeing was reported, though some participants were disenchanted with initiatives that sought to improve 'resilience' as they felt that this placed the onus of responsibility at an individual rather than structural level. Others suggested wellbeing support was perhaps more easily adopted by larger practices with greater infrastructure. Team 'huddles' were used to debrief on complex cases, provide social support and share anxieties, but small rooms and safe distancing in some practices prohibited in-person staff meetings. Shared breaks provided opportunities to raise difficulties informally, which was important to some who felt less inclined to seek formal support either due to workload pressures or stigma.

Personal challenges

Negative financial impacts of the pandemic were described by some GPs, mostly due to reduced availability of locum work, and one GP from a University practice described a reduction in practice earnings and associated stress due to reduced student/patient numbers. Challenges of home-schooling and reduced access to childcare were discussed by many GPs (almost all of whom were women); they described juggling telephone consultations and administrative work with childcare:

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> *"So I was at home trying to get through more patients than normal remotely, trying to learn the technology and I had my children at home, so it was huge. I can remember feeling just running on adrenaline and just feeling constantly stressed." Female GP partner*

Facilitators

Informal and formal support

Interviewees sought informal support through family and friends, colleagues and peers. They described the benefits of talking to other medics who could relate to their experiences; this was particularly important to trainees, some of whom were isolated from family and other networks.

> *"If it wasn't for the support of my own GP trainees… I think I would have just… become even lower in mood. Because the trainees were going through a similar thing, some of them, and they couldn't go back to their own families… So we just came [to the hospital] during Christmas time and helped give [children] gifts, and it was something to do to keep us occupied, otherwise we would just be sitting by ourselves at home" Female trainee GP*

There appeared to be good awareness of the different formal support structures available; ranging from coaching and mentoring support (which several participants had used) to more formal mental health support. Only two male participants discussed using these support services, and, similarly, gender differences were apparent in discussion of approaches to 'self-care'; with comments predominated made by women.

Reducing clinical hours and future plans

Some GPs (mostly women) had reduced their clinical sessions or developed portfolio careers in order to manage work pressure and support wellbeing. There was greater variation in the number of clinical sessions reported by women (median: 6, interquartile range: 3.0) than men (median 6, interquartile range 1.88) as some women had low numbers of clinical sessions, described as a reaction to risk of burnout and seeking work-life balance.

> *"I only work three sessions, and the reason for that is… I'm busy the rest of my time. It's just because I physically can't do those sessions. They are brutal and that's the most that I've found I could tolerate without being ill essentially… Ten years ago, I worked eight sessions. I didn't find that difficult. But if I tried to work eight sessions now, I would literally fall over. It wouldn't be feasible." Female salaried GP*

Portfolio careers (e.g. including teaching and mentoring) provided an opportunity to achieve greater balance, while others planned to specialise, become locums, work abroad or retire. GPs were concerned about retention, particularly of those approaching retirement. Greater use of retainer schemes or a phased retirement stage were seen as opportunities to reduce workload, stress and retain GPs.

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Discussion

Summary

Our interviewees offered in-depth accounts of their experiences during the COVID-19 pandemic, highlighting an exacerbation of difficulties that were already causing challenges in general practice prior to the pandemic. For some, this had led to dissatisfaction with work and mental health problems, or plans to reduce clinical or overall working hours, take on locum work, work abroad or retire. GPs described feelings characteristic of burnout and raised concerns around quality of patient care.

Pressures changed as the pandemic evolved. Early on, GPs experienced stress, rapid change, uncertainty and personal risks, but this time also catalysed technological change. Later, GPs faced anxiety relating to unmet patient need, delayed presentations and growing demand, particularly for mental health support, while negative patient perceptions and media portrayal of practices being 'closed' during this time increased GPs' work stress and reduced job satisfaction. There were calls for improved public relations from leadership bodies in order to counteract inaccuracies in the media and to improve health literacy, particularly as uptake of e-consultation services was perceived as increasing patient demand.

A greater sense of camaraderie and working across primary care networks was reported, particularly to deliver vaccines. Effective team-working was seen as vital and GPs welcomed an increasing focus on wellbeing. They also, however, described a culture of presenteeism, exacerbated during the pandemic due to staff absences and, for some, a sense of stigma around doctors' mental health.

Comparison with existing literature

While this research outlines key sources of stress for GPs that have been the subject of much recent commentary, to our knowledge this is the first reported qualitative study focused on UK GPs' psychological wellbeing during the pandemic and this research also offers insights into potential subgroup variations. International literature highlights similar trends in GP wellbeing during the pandemic - doctors from varied settings report increased rates of burnout, related to high workload, job stress, time pressure and limited organisational support.[16,21] International studies have found higher stress in general practice doctors compared with other healthcare workers and settings.[11, 22, 23] The expanding public commentary and campaigns from UK doctor groups highlight the need to support the GP workforce.[24]

Subgroup variations in GPs' experiences are important to understand as workforce pressures continue. Our research revealed different effects on men and women GPs and different use of support services. This is consistent with international literature which reports gender differences in stress, burnout, anxiety and depression[10, 22, 23, 25-28] and greater job strain amongst women in dual-doctor marriages during the pandemic.[29] These differences may also arise as a result of gendered social norms around willingness to disclose difficulties, or due to socially constructed gender roles in the home that proliferated during COVID-19 lockdowns, negatively impacting women in employment.[30, 31] Our research also suggests gender differences may exist in GPs' perceptions around effective team working, perhaps highlighting women's differential support needs or

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expectations. Women may require targeted interventions to support their wellbeing and encourage continued participation, particularly as they were more likely to report future plans to reduce clinical sessions or adopt portfolio roles. GP partners may also require targeted support as they described greater pressures associated with management workload due to changes to service delivery, staff shortages and vaccination rollout, which supports other recent studies showing an association between older age and higher stress in GPs.[26, 32, 33] Further research may be needed to explore recently qualified and trainee GPs' experiences as our findings suggest they have faced differing challenges that may affect longer-term retention and wellbeing.

Strength and limitations

This research provides rich and contextualised understanding of the experiences of a varied sample of GPs during the pandemic, which our recent systematic review[16] identified as lacking from a UK setting. While there may be selection bias in the views expressed by GPs willing to share experiences, for example GPs experiencing particular difficulties may have been more willing to participate, our interview findings are consistent with other international research and wider commentary on this topic. Our findings are necessarily limited to the time of data collection (Spring/Summer 2021); further tensions in general practice have since arisen, particularly regarding negative and misleading media portrayal.[34]

Implications for research, policy and practice

This research demonstrates the effect of the pandemic on GP wellbeing, with potential wider impacts, for example around workforce retention and patient safety; highlighting a need for national and local intervention. A recent GMC report[17] described the *"ABC of doctors' needs",* advising that doctors' sense of autonomy, belonging and competence need to be promoted for them to thrive in their working lives. All three components have been threatened during the pandemic. GPs' ability to control and influence their work has reduced, and patient frustrations and media blaming of GPs has affected their sense of belonging and competence. There is a need for policy to support GPs, prevent work stress and foster collaborations across wider teams.

Further research could explore these findings more widely through quantitative methods, preferably with some comparison with pre-pandemic wellbeing scores. E-consultation systems, which appear to have increased demand, could be further evaluated, as should planned schemes to supplement the GP workforce with other non-medical staff through the Additional Roles Reimbursement Scheme that formed part of recent GP contract revisions.[35]

Conclusion

The COVID-19 pandemic created some positive impacts on general practice - changing working systems, increasing wider team-working and placing a spotlight on staff wellbeing. Nevertheless, a range of factors affected the wellbeing of GPs detrimentally during the pandemic, and substantial challenges to GPs remain. This could affect workforce retention, quality of care and the sustainability of health systems longer-term. Targeted support strategies may be required to address the subgroup variations, particularly the apparently more detrimental effects on women and on early-career GPs.

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Author contributions

This study was designed and conceived by LJ and KB. LJ and CH conducted interviews and qualitative analysis. LJ wrote the first draft of this manuscript, to which all authors commented. All authors have read and agreed the final version.

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Competing interests

None declared

Ethical considerations

Department of Health Sciences Research Ethics Committee (REC) approval was granted in November 2020 (HSRGC/2020/SC/001). NHS ethical and Health Research Authority approval was not required as we studied the experiences of staff recruited through methods not involving NHS organisations.

Data Statement

Materials and data used for the conduct of this research are available from the study authors on request.

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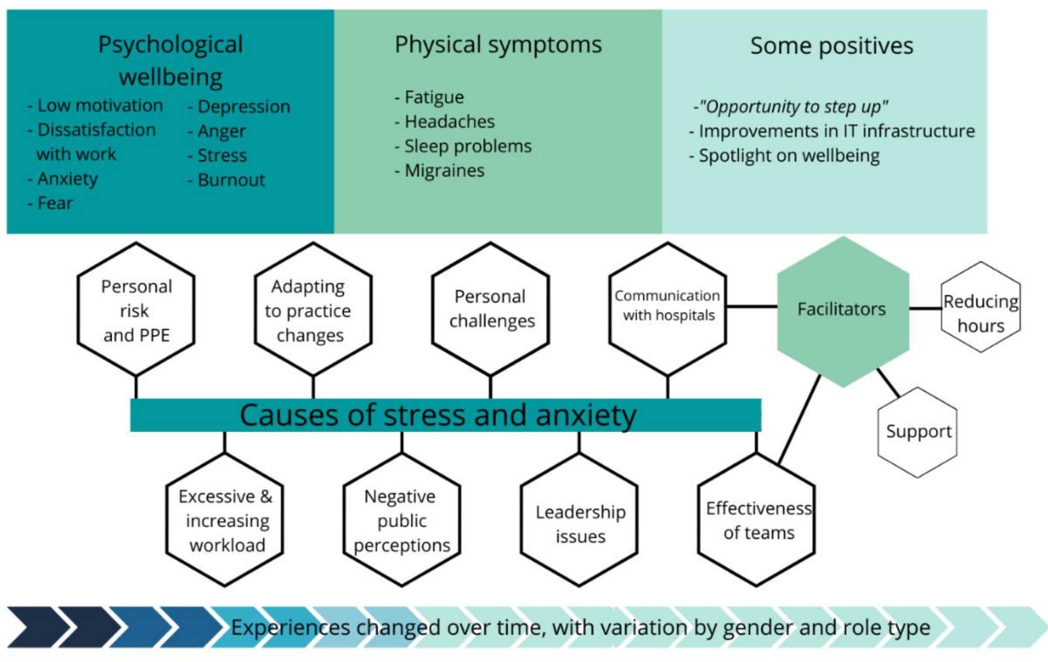
Figure 1: Graphical representation of the study findings.



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GP Wellbeing and COVID: Topic guide for GP interviews

Introductory Section

- Rerun through the Participant Information Leaflet
- Take verbal consent

About you

- *Can you tell me about your role as a GP?* (Time since qualified, contract type (partner/salaried/locum), working hours)

- *Can you describe your GP practice?* (size, location, patient demographic)

- (For returning GPs only): *What were your motivations for returning to practice?*

Feelings towards work and wellbeing

- *Can you describe how you currently feel about your work?*

- *What impact do you think your work has on your wellbeing?*

- *Where do you draw support from?*

- *How would you describe your mental health and wellbeing to be now, in comparison to:*

1) *During other periods over the past year of the pandemic (e.g. first wave and second)*
2) *Pre-COVID*

- *Have you been diagnosed or do you suspect you have had COVID-19 yourself?* (If so, probe for more detail – health, experiences and feelings)

- *For first-5 GPs only: How is your work different from what you expected before you specialised?*

Challenges and facilitators

- *What would you describe as your main challenges or stressors at work during this time?* (keep this open and non-leading – though possible areas of discussion could include risk/safety/PPE, movement to e consultations, remote working, reduced patient throughput, rapidly evolving guidelines, managing altered patient needs – long COVID, mental health etc)

- *How do these challenges make you feel?*

- *How does this compare to pre-COVID?*

- *Can you think of anything in particular that helps/helped?*

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Supplementary File

- *Have any of these changes have been positive? If so, could describe which may be beneficial to carry forward after COVID-19?*

How can policy help?

- *Do you have any thoughts or recommendations as to how future policy, nationally or more locally, can support GPs?* (Possible prompts include: national policy, support from Royal College, local plans at LMC, PCN or practice level)

- Incorporating wellbeing into GP appraisals - *what are your thoughts around the plans to include wellbeing component in GP appraisal? How might this best be achieved?*

Future plans

- *Have your experiences changed how you view your future in medicine?* (keep this open and non-leading – possible areas of discussion could include retirement or leaving medicine or working internationally)

Closing

- *Is there anything else that you feel is important that we haven't yet discussed?*

- *Thank you for your time taking part in this study. The information you have given will be treated confidentially and kept anonymous.*

- Ask whether they would like to receive a summary of the results from this work

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Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

Please indicate in which section each item has been reported in your manuscript. If you do not feel an item applies to your manuscript, please enter N/A.

For further information about the COREQ guidelines, please see Tong *et al.*, 2017: https://doi.org/10.1093/intqhc/mzm042

No.	Item	Description	Section #
Domain 1: Research team and reflexivity			
Personal characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	
2.	Credentials	What were the researcher's credentials? *E.g. PhD, MD*	
3.	Occupation	What was their occupation at the time of the study?	
4.	Gender	Was the researcher male or female?	
5.	Experience and training	What experience or training did the researcher have?	
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? *E.g. Personal goals, reasons for doing the research*	
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? *E.g. Bias, assumptions, reasons and interests in the research topic*	
Domain 2: Study design			
Theoretical framework			
9.	Methodological orientation and theory	What methodological orientation was stated to underpin the study? *E.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis*	
Participant selection			
10.	Sampling	How were participants selected? *E.g. purposive, convenience, consecutive, snowball*	
11.	Method of approach	How were participants approached? *E.g. face-to-face, telephone, mail, email*	
12.	Sample size	How many participants were in the study?	
13.	Non-participation	How many people refused to participate or dropped out? What were the reasons for this?	
Setting			
14.	Setting of data collection	Where was the data collected? *E.g. home, clinic, workplace*	
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	

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16.	Description of sample	What are the important characteristics of the sample? *E.g. demographic data, date*	
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	
20.	Field notes	Were field notes made during and/or after the interview or focus group?	
21.	Duration	What was the duration of the interviews or focus group?	
22.	Data saturation	Was data saturation discussed?	
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	
25.	Description of the coding tree	Did authors provide a description of the coding tree?	
26.	Derivation of themes	Were themes identified in advance or derived from the data?	
27.	Software	What software, if applicable, was used to manage the data?	
28.	Participant checking	Did participants provide feedback on the findings?	
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? *E.g. Participant number*	
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	
31.	Clarity of major themes	Were major themes clearly presented in the findings?	
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	

When submitting your manuscript via the online submission form, please upload the completed checklist as a Figure/supplementary file.

If you would like this checklist to be included alongside your article, we ask that you upload the completed checklist to an online repository and include the guideline type, name of the repository, DOI and license in the *Data availability* section of your manuscript.

Developed from: Allison Tong, Peter Sainsbury, Jonathan Craig, Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups, International Journal for Quality in Health Care, Volume 19, Issue 6, December 2007, Pages 349–357, https://doi.org/10.1093/intqhc/mzm042

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BMJ Open

General practitioner wellbeing during the COVID-19 pandemic: a qualitative interview study

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Full title: General practitioner wellbeing during the COVID-19 pandemic: a qualitative interview study

Short title: GP interviews exploring wellbeing during COVID-19

For peer review only

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Abstract

Objectives

The COVID-19 pandemic presented new challenges for general practitioners' (GPs') mental health and wellbeing, with growing international evidence of its negative impact. While there has been wide UK commentary on this topic, research evidence from a UK setting is lacking. This study sought to explore the lived experience of UK GPs during COVID-19, and the pandemic's impact on their psychological wellbeing.

Design and Setting

In-depth qualitative interviews, conducted remotely by telephone or video call, with NHS GPs.

Participants

GPs were sampled purposively across three career stages (early career, established and late career or retired GPs) with variation in other key demographics. A comprehensive recruitment strategy used multiple channels. Data were analysed thematically using Framework Analysis.

Results

We interviewed 40 GPs; most described generally negative sentiment and many displayed signs of psychological distress and burnout. Causes of stress and anxiety related to personal risk, workload, practice changes, public perceptions and leadership, team working and wider collaboration and personal challenges. GPs described potential facilitators of their wellbeing, including sources of support and plans to reduce clinical hours or change career path, and some described the pandemic as offering a catalyst for positive change.

Conclusions

A range of factors detrimentally affected the wellbeing of GPs during the pandemic and we highlight the potential impact of this on workforce retention and quality of care. As the pandemic progresses and general practice faces continued challenges, urgent policy measures are now needed.

Keywords: General practitioners, Wellbeing, well-being, Mental health, burnout, stress, COVID-19, coronavirus, qualitative research

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Article Summary

Strengths and limitations of this study

- While there is growing international evidence demonstrating the impact of the COVID-19 pandemic on GPs' wellbeing and much UK media coverage, this qualitative interview study provides much-needed research evidence of UK GPs' lived experiences and wellbeing during COVID-19.
- 40 GPs were sampled purposively to include GPs with different demographic and practice characteristics.
- While there are no easy solutions to the problems highlighted, this research provides contextualised understanding of how these experiences may impact future workforce retention and the sustainability of health systems longer-term.
- Sub-group differences by gender and age are reported, highlighting a potential need for further research and support targeted at specific groups.
- Findings are necessarily limited to the time of data collection (Spring/Summer 2021). Further tensions in general practice have since arisen, particularly regarding negative and misleading media portrayal.

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Introduction

Before the COVID-19 pandemic, rising demands on UK NHS general practitioners (GPs), including increasing work complexity and intensity and falling numbers of doctors, was leading to GP mental health difficulties[1] and a growing gap between GP demand and supply.[2] 80% of the doctors participating in a BMA survey appear to be at high or very high risk of burnout,[3] with research suggesting primary care doctors are at highest risk.[4, 5] Not only does chronic stress and burnout threaten the mental health of GPs, it also presents challenges for the sustainability of the health care system and the quality of patient care. Pre-COVID-19, one in three GPs planned to leave medicine within five years[6] and a shortage of 2,500 GPs was estimated to increase to 7,000 within five years if trends continued.[2] The link between doctor wellbeing and patient safety has been demonstrated in a systematic review,[7] while in general practice specifically, lower wellbeing has been associated with increased likelihood of reporting 'near miss' events and worse perceptions of patient safety.[8]

Clear new risks to workforce wellbeing occurred during the pandemic: GPs experienced rapid change, risks of infection, remote working and reductions in face-to-face patient care. A growing international evidence base has explored the impact of the pandemic on healthcare workforce wellbeing.[9-15] Indeed, 31 studies in general practice were included in a recent systematic review of international literature.[16] While these studies highlight pressures during the pandemic and impact on GPs' psychological wellbeing, just three research studies including UK GPs were identified. One of these studies explores experiences of GPs with long-COVID, one focuses on one geographical location, and one presents the findings of UK GPs alongside other countries.[16]

We sought to address this evidence gap by exploring the lived experience of UK GPs during COVID-19, and the pandemic's impact on their psychological wellbeing.

Method

We adopted an exploratory qualitative methodology, conducting qualitative interviews to understand UK GPs' lived experiences and wellbeing during COVID-19. While our analytical approach was inductive in nature and a pre-defined theoretical framework was not imposed, our approach was guided by our existing knowledge of relevant literature. We interpret our findings within the policy context using Michael West's ABC of doctors' needs,[17] which highlights the importance of doctors' sense of *autonomy, belonging* and *contribution* in their working lives and is based on Deci and Ryan's self-determination theory.[18]

Interviews were semi-structured in nature, using topic guides (see Supplementary File) to explore GPs' wellbeing during the pandemic, encouraging reflections on their working lives and wellbeing before the pandemic, views around challenges during the pandemic, facilitators of improved working practices, future intentions, motivations and thoughts on how to improve GPs' working lives.

Patient and public involvement

A multidisciplinary team developed and piloted topic guides in consultation with an expert panel comprising four GPs and a project steering committee consisting of an international expert in organisational psychology, NHS mental health and two senior Royal College of General Practitioner (RCGP) representatives. Three patient representatives were also consulted during the design and implementation of this research.

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Sampling and recruitment

We sampled GPs purposively across three career stages: 'early-career GPs' (in final stages of training and first five years of practice); 'established GPs' and 'late-career GPs (including retired GPs returning to practice during COVID-19). We sampled for variation in key demographics including ethnicity, age, gender, contract type and local area characteristics (geographical spread, deprivation level and COVID-19 rates) using a comprehensive, multi-channel recruitment strategy. Our initial recruitment approach through social media (Twitter) using a project infographic and shared by leading experts in the field, proved so successful that over 40 GPs offered to participate within 24 hours. In order to obtain maximum variation in participant characteristics and reduce the potential for bias, we also recruited through communications with the Yorkshire and Humber deanery, snowballing our networks of clinicians nationally, email circulation to the RCGP late-career and recently retired group and emails directly to participants in the GP Worklife Survey who had indicated they would be willing to participate in research of this type.

Potential participants were asked to complete a brief survey to provide contact details and basic demographic information, and sent Consent Forms and Participant Information Leaflets explaining the nature and rationale for the research. GPs meeting the sampling framework were contacted to arrange virtual interviews, conducted by LJ and CH via zoom or telephone. Informed verbal consent was obtained prior to commencing interviews. We provided an £100 honorarium to thank participants for their time.

Analysis

We used transcriptions and recordings to analyse data thematically, facilitated using NVivo 12 data sorting software (QSR International Pty Ltd, 2018). Our approach to analysis was inductive, with themes emerging from the data rather than using pre-specified theory. We used Framework Analysis[19] following the steps described in Table 1. Two researchers (LJ and CH) coded the interviews independently, checking a 20% sample for consistency and meeting weekly to enable triangulation; refining the coding framework as analysis progressed. No member checking was needed.

Reflexivity

We maintained a reflexive approach throughout the design and analysis stages to limit potential for preconceptions to influence research findings. All researchers were female, with non-medical backgrounds; it is possible that our experiences may have generated more open discussion amongst women participants or affected our interpretations of women GPs' experiences. LJ and KB's previous work on medical workplace culture and gendered norms may also have influenced this research process. To avoid the impact of such potential bias, we undertook researcher triangulation (during data collection and analysis) and consulted a committee of experts, GPs and patients in order to appropriately frame the topic guides for interviews, recruitment materials, and user-test these approaches before wider rollout. During analysis we sense-checked our findings with stakeholders through meetings with our steering committee and informal discussions with GPs outside the committee in order to gain deeper understanding. While our analysis was inductive in nature, this research was undertaken simultaneously to our wider research projects on GP wellbeing, and is therefore underpinned by our knowledge of that evidence base.

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Table 1: Process of Framework Analysis

Stage of Analysis	Description
Managing the data	We managed transcriptions using Nvivo 12 software (QSR International Pty Ltd, 2018) to supplement the researchers' analytical thinking and familiarisation with the data.
Familiarisation	Both researchers undertaking interviews (CH and LJ) immersed themselves in the data by reading and re-reading transcripts, listening to audio recordings and producing detailed notes for each interview in order to help facilitate the following analysis stages.
Identifying a thematic framework	Researchers independently developed two thematic frameworks and met on multiple occasions to discuss and refine these into one thematic framework. This was tested on 4 transcripts prior to use, and further iterations continued to be made through discussion with the study team as the coding developed.
Indexing the data	Both researchers then indexed, or coded, the interview data according to 10 themes and 95 subthemes which were identified in the thematic framework. Data were re-coded where needed whenever revisions to the coding framework were made.
Charting	Once coding was complete, we explored the relationships between themes using mindmaps, research team discussions and creation of overarching themes, or 'supercodes.' This process identified six overarching themes made up of 30 subthemes. We also explored categories of participants, particularly focusing on relationships between career stage, gender, job role, ethnicity, previous or current experience of mental illness and working in a deprived geographical area. Qualitative analysis of the data was facilitated through mapping themes according to these key characteristics.
Mapping and interpretation	In order to go beyond the purely descriptive account of the data and develop wider meanings about links between phenomena and subgroups of participants, we mapped themes to build patterns in the data, bearing in mind the original research objectives and also exploring negative or deviant cases to explore alternative explanations.

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Results

Sample characteristics

Interviews with 40 GPs took place between March and June 2021, lasting between 43 and 72 minutes. Participants were from a range of career stages: 13 'early career', 19 'established' and 8 'late-career' or retired GPs. Twenty GPs were aged 30-39, and we interviewed more women than men (29/40). There was a slightly higher proportion of white GPs in our sample to those reported nationally (67.5% compared to 56.6% nationally[20]). Further demographic characteristics can be found in Table 2. Though we sampled according to a purposive sampling strategy, data saturation was reached.

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Table 2: Participant characteristics

Career stage	N	(%)
Early	13	32.5
Established	19	47.5
Late	8	20.0
Gender		
Male	11	27.5
Female	29	72.5
Age		
< 30	3	7.5
30 - 39	20	50.0
40 - 49	9	22.5
50 - 59	6	15.0
>60	2	5.0
Ethnicity		
Ethnic minority Groups	10	25.0
White British	27	67.5
White non-British	3	7.5
Location		
England - East	3	7.5
England - London	5	12.5
England - North East	1	2.5
England - North West	3	7.5
England - South East	3	7.5
England - South West	4	10.0
England - West Midlands	5	12.5
England - Yorkshire and Humber	14	35.0
Northern Ireland	2	5.0
Job role		
GP trainee	6	15.0
GP retainer	1	2.5
Salaried GP	17	42.5
GP partner	14	35.0
Retired GP	2	5.0
Clinical sessions		
Median (IQR)	6 (3.63)	
1-4	11	27.5
5-7	16	40.0
≥8	9	22.5
Retired	2	5.0
Unknown	2	5.0
Portfolio roles	18	45.0
Area demographics		
Highly deprived	10	25.0
Pockets of deprivation	9	22.5
Rural or semi-rural	4	10.0
Large elderly population	4	10.0
COVID history		
Suspected COVID	8	20.0
COVID diagnosis	4	10.0

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Thematic findings

Overarching themes highlighting 1) the impact of the pandemic on GPs' psychological wellbeing, 2) causes of stress and anxiety and 3) facilitators that improved GPs' working lives are described. These are displayed graphically in Figure 1.

Psychological wellbeing

Causes of stress and anxiety altered during the course of the pandemic. Many reflected on concerns at the start of the pandemic around managing adaptations to work (e.g. movement to remote working and development of hot sites), and dealing with uncertainty around what lay ahead. GPs described fear of the unknown and potential risk to themselves and their families. Anxiety increased as levels of unmet patient need grew from the autumn of 2020 onwards; there were concerns about future demand, as well as support available for patients' mental and physical needs.

GPs talked about low motivation, dissatisfaction with work, frustration and anger during interviews, which they described as having been particularly difficult during the winter of 2020. For some this related to general stress of the pandemic (social isolation, lack of enjoyment in things and pressures of home-schooling). Work-related feelings of stress and anxiety were, however, very widely expressed. Often referred to as being overwhelmed, GPs described their work as *"all consuming"* (Female salaried GP2) and having a "*background level of anxiety"* (Female GP3 partner).

Five GPs reported having clinically diagnosed mental health problems; all were female (though with variation in age and job roles). The following quotation displays signs characteristic of burnout:

> *"You're just filling and filling the bucket, and at some point it will overspill. And you've just got to hope that you don't miss something really important… So I want to remove myself from that situation for at least a period of time, just while I rebuild my armour I suppose and see if I want to do it again." Female salaried GP34*

Many GPs described the negative impact on their families and relationships, and held concerns about quality of patient care due to increasing impatience or fear of making mistakes due to extreme fatigue. Difficulties with sleep and fatigue were common. A minority of GPs (one of whom experienced long COVID) described difficulties with concentration, resulting in driving incidents.

> *"I think the work, particularly in the last few months, has left me pretty exhausted, and, you know, I kind of come home in the afternoon, or in the evening, and I'm pretty useless to my wife, or to anyone else really." Male salaried GP28*

> *"decision fatigue… towards the end of the day, I'd get a phone call at five o'clock, with someone talking about how low they're feeling, and they need a bit of support… at the end of the day, I couldn't give the same support to that patient that I perhaps would have done, if it was eight o'clock that I was speaking to them." Male salaried GP4*

Stigma and presenteeism

GPs tended to downplay experiences of stress and, despite the impact on their mental wellbeing, many did not seek formal support:

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> *"I am normally very 'just get on with it' in life. I massively took a dive. Just very anxious, not in a way that I needed any kind of help… but just completely changed who I was. I was a bit of a mess, much like most of us were." Female trainee GP26*

GPs described reluctance to seek support because of stigma and guilt from taking time off as this would burden their colleagues without a *"buffer in the system"* (Female GP partner3). All had worked additional clinical sessions to cover absences, which increased during the pandemic due to mental wellbeing or self-isolation of colleagues. This appeared more problematic for GP partners and smaller practices.

> *"I think we all were put under huge stress and people have gone off sick that have never been sick. And I think people have just cracked up basically, but the trouble is, it's like a domino effect" Female GP partner24*

Positive emotions

Approximately half of participants expressed some element of positivity when reflecting on their wellbeing during the pandemic, though negative comments around challenges dominated discussions. Positive comments related to their enjoyment of work and seeing the pandemic as providing a catalyst for long-needed change. Some recently qualified GPs welcomed the challenge and ability to 'step up' during the pandemic.

> *"In all honesty, that time felt really positive. It felt really refreshing. It felt empowering and as though…we'd known that general practice was struggling and not fit for purpose and we knew we needed to make some changes, but no-one could agree on the changes. And we'd been having these conversations for what, ten years? And not getting anywhere. And all of a sudden overnight we had to change, and we all did and it was fine." Female salaried GP8*

Causes of stress and anxiety

Personal risk

Most interviewees reported fear of putting themselves and family members at risk, particularly at the start of the pandemic. GPs in high risk categories (older GPs, GPs from minority ethnic groups or those with asthma) described particular concerns. For example, a GP from an ethnic minority group described:

> *"I didn't feel I was particularly protected in any way, you know, they just expect you to get on with it" Male GP partner7*

Changing guidance around implementation of 'hot' sites, use of and access to PPE heightened anxiety. GPs were frustrated and felt neglected compared to hospital colleagues due to lower standards of PPE, even in COVID-19 'hot sites.'

> *"The psychiatrists were being fitted with FFP3 masks, specialist masks… working at home doing telephone reviews, and us in primary care and our district nurses… going out to visit cancer people were given flimsy surgical masks and told that these will be fine, get on with it… we felt disappointed that we were neglected" Female GP partner30*

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Workload

GPs described workload issues before COVID-19, with treatment advances and shifting care out of hospitals adding pressure. The vast majority of GPs felt their workload had increased during the pandemic, reducing their wellbeing further.

> *"It's a different world, isn't it? I mean I think I thought I was busy [before COVID], but I didn't have a clue what busy was, basically. I just can't believe the workload explosion since COVID... it was stressful [before COVID], but I had my head above water." Female GP partner24*

Reports of working 12-14 hour days and additional unpaid administration sessions were commonplace. Patient demand for urgent on-the-day appointments was described as unmanageable, and practices also struggled to meet 'non-urgent' demand within reasonable timeframes.

> *"Most days there were 50 or 60 contacts on that appointment list where the RCGP says that they reckon the safe limit is about 30. So probably double." Female salaried GP8*

GP partners, in particular, commented on increases in administrative workload at the start of the pandemic; reading and implementing sometimes contradictory guidance from multiple sources which evolved daily. At the start of the pandemic, though, the increased management workload was balanced by initial reduced patient demand. Management workload increased again during the planning and implementation of the vaccination programme, with additional time pressures from cleaning and PPE measures.

GPs reflected that patient demand became most challenging from the end of summer 2020 onwards, particularly from late presentations with more serious pathologies, leading to greater workload and emotional strain. Higher demand from patients with mental health problems also increased workload, alongside difficulties in consulting these patients remotely and lack of support services:

> *"Our mental health service is shocking… mental health services play ping pong between themselves… IAPT say, oh, too severe for us, and the secondary care mental health service say, oh, no, not severe enough for us, we're not dealing with that. And then they just fall into this black hole." Female GP partner35*

Practice changes

Participants described the many changes that the pandemic had brought about, including new triage systems, use of remote consultations, the vaccination rollout and changes for trainees. Some associated these changes with stress and increased workload, but there was a general sentiment that the pandemic had provided a positive impetus for technological development. GPs described the importance of triage systems for prioritisation and reallocating patients during staff absences. E-consultation systems were perceived to increase demand due to greater accessibility:

> *"Now eConsults have come in there's no barrier… there'll be 200 eConsults on a Monday that we have to deal with as well as all the other general practice workload and the vaccination programme and PCNs, and it's just really unsustainable and unsafe." Female GP partner30*

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There were mixed emotions around the movement to telephone and video consultations, which were viewed positively for minor conditions, reducing attendances and enabling more focused face-to-face appointments. GPs in multi-site practices covering large geographical areas described their increased ability to share workload across practices. GPs also described feeling isolated, 'decision fatigue' and felt that consultations lacked personal contact with patients, which had encouraged their career choice. While telephone consultations were well-received amongst younger and working patients, there were concerns around inequalities in access and potential missed diagnoses. These concerns were particularly expressed by trainee and early-career GPs.

Vaccination rollout

The vaccination programme was described as a great morale booster, coming at a time when many GPs and the wider public needed hope. GPs described working additional hours to manage vaccinations, but with a sense of teamwork and pride.

> *"There was a point when we were doing the 80 year olds where you had to vaccinate 14 people to save one life. And I'm feeling tearful about it even now. Like just the actual practical difference that you could make in a terrible situation." Female salaried GP34*

Practices had also faced workload increases due to patient queries about vaccinations and GPs expressed frustration with public messaging around the vaccination rollout.

Public perceptions and leadership

Despite the initial public appreciation for the NHS at the start of the pandemic, GPs described how this had been eroded at the time of conducting our interviews with negative public perceptions of general practice greatly impacting GPs' wellbeing and one of the most widely cited causes of stress. Patients facing problems with access or referrals became increasingly frustrated, and GPs felt this was fuelled by negative media portrayals, described by participants as *"GP bashing."* GPs described *"simmering discontent amongst communities"* (Male salaried GP28) who they felt had been *"whipped up to a frenzy by the government and by the media"* (Female GP partner24).

Several GPs described positively the outpouring of appreciation for NHS workers at the beginning of the pandemic, but most felt that public appreciation was eroded due to inaccurate messaging from the government, NHS England and the media about general practice being closed:

> *"That was really upsetting at one point, thinking that people thought we were closed. I was like, I've been working my socks off, I've been working at COVID hubs or I've been doing back-to-back telephone consulting… no matter what we do or what we try, people just assume that we're not working hard enough." Female trainee GP10*

GPs expressed frustration around national decision-making, which they felt had directly risked NHS capacity and heightened anxiety in anticipation of repeat waves of the pandemic. Communication about delays in out-patient appointments and routine surgery was seen as vital, as were government campaigns encouraging health awareness about common illnesses and more signposting to appropriate specialists.

Retired GPs described lengthy bureaucratic processes at the start of the pandemic which prohibited them from returning to practice; certain training requirements were viewed as unnecessary for

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remote working and one described the process taking two months. Two volunteered to support practices and vaccinations, but their offers were declined.

Wider collaboration

Almost half of the interviewees felt that the pandemic offered opportunities to foster collaboration across Primary Care Networks (PCNs), hospitals, community and wider services. A greater sense of camaraderie and improved working across PCNs was reported, with groups of practices 'pulling together' during the vaccine rollout.

A minority reported greater access to specialist support from hospitals and some actually described conflict between primary and secondary care. This related to lengthy hospital waiting lists and some service closures increased workload for GPs, who felt they were the only support for some high-risk patients:

> *"Eating disorder services stopped. They just stopped. So for a nine month period any new referrals, you couldn't refer. And there wasn't an alternative. So we set up a high risk list to look after the highest risk eating disorders patients. … Mental health services, closed to routine referrals. They would only see suicidal people." Female salaried GP34*

General practice teams

Experiences and perceptions of the effectiveness of practice teams varied, affecting GP wellbeing and ability to cope with challenges. Isolation from teams was problematic particularly for early-career GPs who lacked support and found it difficult to integrate. Concerns were raised around trainees' wellbeing, feeling that they had been used *"as cannon fodder"* in frontline hospital roles and had faced much disruption to their training. Disproportionate numbers of women raised difficulties with teams.

The majority of GPs cited examples of good teamworking and described a sense of pulling together during the pandemic. An increased focus on personal and team mental wellbeing was reported, though some participants were disenchanted with initiatives that sought to improve 'resilience' as they felt that this placed the onus of responsibility at an individual rather than structural level. Others suggested wellbeing support was perhaps more easily adopted by larger practices with greater infrastructure. Team 'huddles' were used to debrief on complex cases, provide social support and share anxieties, but small rooms and safe distancing in some practices prohibited in-person staff meetings. Shared breaks provided opportunities to raise difficulties informally, which was important to some who felt less inclined to seek formal support either due to workload pressures or stigma.

Personal challenges

Negative financial impacts of the pandemic were described by some GPs, mostly due to reduced availability of locum work, and one GP from a University practice described a reduction in practice earnings and associated stress due to reduced student/patient numbers. Challenges of home-schooling and reduced access to childcare were discussed by many GPs (almost all of whom were women); they described juggling telephone consultations and administrative work with childcare:

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3 *"So I was at home trying to get through more patients than normal remotely, trying to learn*
4 *the technology and I had my children at home, so it was huge. I can remember feeling just*
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6 *running on adrenaline and just feeling constantly stressed." Female GP partner30*
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Facilitators

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Informal and formal support

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14 Interviewees sought informal support through family and friends, colleagues and peers. They
15 described the benefits of talking to other medics who could relate to their experiences; this was
16 particularly important to trainees, some of whom were isolated from family and other networks.
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18 *"If it wasn't for the support of my own GP trainees… I think I would have just… become even*
19
20 *lower in mood. Because the trainees were going through a similar thing, some of them, and*
21 *they couldn't go back to their own families… So we just came [to the hospital] during*
22 *Christmas time and helped give [children] gifts, and it was something to do to keep us*
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24 *occupied, otherwise we would just be sitting by ourselves at home" Female trainee GP10*
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26 There appeared to be good awareness of the different formal support structures available; ranging
27 from coaching and mentoring support (which several participants had used) to more formal mental
28 health support. Only two male participants discussed using these support services, and, similarly,
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30 gender differences were apparent in discussion of approaches to 'self-care'; with comments
31 predominated made by women.
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Reducing clinical hours and future plans

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35 Some GPs (mostly women) had reduced their clinical sessions or developed portfolio careers in order
36 to manage work pressure and support wellbeing. There was greater variation in the number of
37 clinical sessions reported by women (median: 6, interquartile range: 3.0) than men (median 6,
38 interquartile range 1.88) as some women had low numbers of clinical sessions, described as a
39
40 reaction to risk of burnout and seeking work-life balance.
41
42 *"I only work three sessions, and the reason for that is… I'm busy the rest of my time. It's just*
43 *because I physically can't do those sessions. They are brutal and that's the most that I've found*
44 *I could tolerate without being ill essentially… Ten years ago, I worked eight sessions. I didn't*
45
46 *find that difficult. But if I tried to work eight sessions now, I would literally fall over. It wouldn't*
47 *be feasible." Female salaried GP34*
48
49 Portfolio careers (e.g. including teaching and mentoring) provided an opportunity to achieve greater
50 balance, while others planned to specialise, become locums, work abroad or retire. GPs were
51 concerned about retention, particularly of those approaching retirement. Greater use of retainer
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53 schemes or a phased retirement stage were seen as opportunities to reduce workload, stress and
54 retain GPs.
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Discussion

Summary

Our interviewees offered in-depth accounts of their experiences during the COVID-19 pandemic, highlighting an exacerbation of difficulties that were already causing challenges in general practice prior to the pandemic. For some, this had led to dissatisfaction with work and mental health problems, or plans to reduce clinical or overall working hours, take on locum work, work abroad or retire. GPs described feelings characteristic of burnout and raised concerns around quality of patient care.

Pressures changed as the pandemic evolved. Early on, GPs experienced stress, rapid change, uncertainty and personal risks, but this time also catalysed technological change. Later, GPs faced anxiety relating to unmet patient need, delayed presentations and growing demand, particularly for mental health support, while negative patient perceptions and media portrayal of practices being 'closed' during this time increased GPs' work stress and reduced job satisfaction. There were calls for improved public relations from leadership bodies in order to counteract inaccuracies in the media and to improve health literacy, particularly as uptake of e-consultation services was perceived as increasing patient demand.

A greater sense of camaraderie and working across primary care networks was reported, particularly to deliver vaccines. Effective team-working was seen as vital and GPs welcomed an increasing focus on wellbeing. They also, however, described a culture of presenteeism, exacerbated during the pandemic due to staff absences and, for some, a sense of stigma around doctors' mental health.

Comparison with existing literature

While this research outlines key sources of stress for GPs that have been the subject of much recent commentary, to our knowledge this is the first reported qualitative study focused on UK GPs' psychological wellbeing during the pandemic and this research also offers insights into potential subgroup variations. International literature highlights similar trends in GP wellbeing during the pandemic - doctors from varied settings report increased rates of burnout, related to high workload, job stress, time pressure and limited organisational support.[16,21] International studies have found higher stress in general practice doctors compared with other healthcare workers and settings.[11, 22, 23] The expanding public commentary and campaigns from UK doctor groups highlight the need to support the GP workforce.[24]

Subgroup variations in GPs' experiences are important to understand as workforce pressures continue. Our research revealed different effects on men and women GPs and different use of support services. This is consistent with international literature which reports gender differences in stress, burnout, anxiety and depression[10, 22, 23, 25-28] and greater job strain amongst women in dual-doctor marriages during the pandemic.[29] These differences may also arise as a result of gendered social norms around willingness to disclose difficulties, or due to socially constructed gender roles in the home that proliferated during COVID-19 lockdowns, negatively impacting women in employment.[30, 31] Our research also suggests gender differences may exist in GPs' perceptions around effective team working, perhaps highlighting women's differential support needs or

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expectations. Women may require targeted interventions to support their wellbeing and encourage continued participation, particularly as they were more likely to report future plans to reduce clinical sessions or adopt portfolio roles. GP partners may also require targeted support as they described greater pressures associated with management workload due to changes to service delivery, staff shortages and vaccination rollout, which supports other recent studies showing an association between older age and higher stress in GPs.[26, 32, 33] Further research may be needed to explore recently qualified and trainee GPs' experiences as our findings suggest they have faced differing challenges that may affect longer-term retention and wellbeing.

Strength and limitations

This research provides rich and contextualised understanding of the experiences of a varied sample of GPs during the pandemic, which our recent systematic review[16] identified as lacking from a UK setting. While there may be selection bias in the views expressed by GPs willing to share experiences, for example GPs experiencing particular difficulties may have been more willing to participate, our interview findings are consistent with other international research and wider commentary on this topic. Our findings are necessarily limited to the time of data collection (Spring/Summer 2021); further tensions in general practice have since arisen, particularly regarding negative and misleading media portrayal.[34]

Implications for research, policy and practice

This research demonstrates the effect of the pandemic on GP wellbeing, with potential wider impacts, for example around workforce retention and patient safety; highlighting a need for national and local intervention. A recent GMC report[17] described the *"ABC of doctors' needs",* advising that doctors' sense of autonomy, belonging and competence need to be promoted for them to thrive in their working lives. All three components have been threatened during the pandemic. GPs' ability to control and influence their work has reduced, and patient frustrations and media blaming of GPs has affected their sense of belonging and competence. There is a need for policy to support GPs, prevent work stress and foster collaborations across wider teams.

Further research could explore these findings more widely through quantitative methods, preferably with some comparison with pre-pandemic wellbeing scores. E-consultation systems, which appear to have increased demand, could be further evaluated, as should planned schemes to supplement the GP workforce with other non-medical staff through the Additional Roles Reimbursement Scheme that formed part of recent GP contract revisions.[35]

Conclusion

The COVID-19 pandemic created some positive impacts on general practice - changing working systems, increasing wider team-working and placing a spotlight on staff wellbeing. Nevertheless, a range of factors affected the wellbeing of GPs detrimentally during the pandemic, and substantial challenges to GPs remain. This could affect workforce retention, quality of care and the sustainability of health systems longer-term. Targeted support strategies may be required to address the subgroup variations, particularly the apparently more detrimental effects on women and on early-career GPs.

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Author contributions

This study was designed and conceived by LJ and KB. LJ and CH conducted interviews and qualitative analysis. LJ wrote the first draft of this manuscript, to which all authors commented. All authors have read and agreed the final version.

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Competing interests

None declared

Ethical considerations

Department of Health Sciences Research Ethics Committee (REC) approval was granted in November 2020 (HSRGC/2020/SC/001). NHS ethical and Health Research Authority approval was not required as we studied the experiences of staff recruited through methods not involving NHS organisations.

Data Statement

Materials and data used for the conduct of this research are available from the study authors on request.

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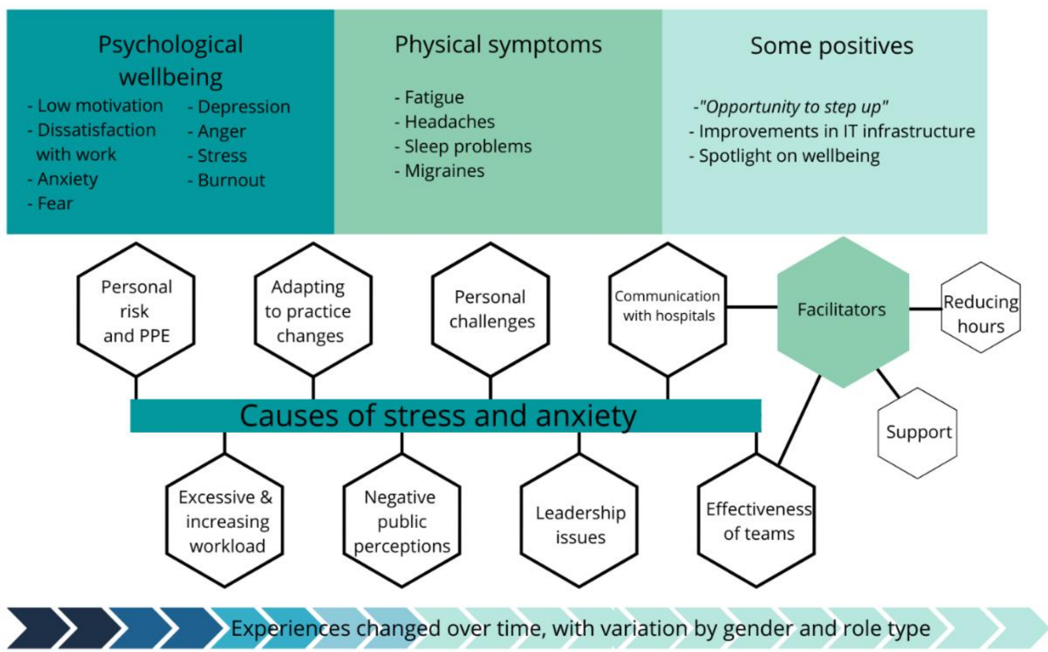
Figure 1: Graphical representation of the study findings.



Supplementary File

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GP Wellbeing and COVID: Topic guide for GP interviews

Introductory Section

- Rerun through the Participant Information Leaflet
- Take verbal consent

About you

- *Can you tell me about your role as a GP?* (Time since qualified, contract type (partner/salaried/locum), working hours)
- *Can you describe your GP practice?* (size, location, patient demographic)
- (For returning GPs only): *What were your motivations for returning to practice?*

Feelings towards work and wellbeing

- *Can you describe how you currently feel about your work?*
- *What impact do you think your work has on your wellbeing?*
- *Where do you draw support from?*
- *How would you describe your mental health and wellbeing to be now, in comparison to:*

1) *During other periods over the past year of the pandemic (e.g. first wave and second)*
2) *Pre-COVID*

- *Have you been diagnosed or do you suspect you have had COVID-19 yourself?* (If so, probe for more detail – health, experiences and feelings)
- *For first-5 GPs only: How is your work different from what you expected before you specialised?*

Challenges and facilitators

- *What would you describe as your main challenges or stressors at work during this time?* (keep this open and non-leading – though possible areas of discussion could include risk/safety/PPE, movement to e consultations, remote working, reduced patient throughput, rapidly evolving guidelines, managing altered patient needs – long COVID, mental health etc)
- *How do these challenges make you feel?*
- *How does this compare to pre-COVID?*
- *Can you think of anything in particular that helps/helped?*

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- *Have any of these changes have been positive? If so, could describe which may be beneficial to carry forward after COVID-19?*

How can policy help?

- *Do you have any thoughts or recommendations as to how future policy, nationally or more locally, can support GPs?* (Possible prompts include: national policy, support from Royal College, local plans at LMC, PCN or practice level)

- Incorporating wellbeing into GP appraisals - *what are your thoughts around the plans to include wellbeing component in GP appraisal? How might this best be achieved?*

Future plans

- *Have your experiences changed how you view your future in medicine?* (keep this open and non-leading – possible areas of discussion could include retirement or leaving medicine or working internationally)

Closing

- *Is there anything else that you feel is important that we haven't yet discussed?*

- *Thank you for your time taking part in this study. The information you have given will be treated confidentially and kept anonymous.*

- Ask whether they would like to receive a summary of the results from this work

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Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

Please indicate in which section each item has been reported in your manuscript. If you do not feel an item applies to your manuscript, please enter N/A.

For further information about the COREQ guidelines, please see Tong *et al.*, 2017: https://doi.org/10.1093/intqhc/mzm042

No.	Item	Description	Section #
Domain 1: Research team and reflexivity			
Personal characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	
2.	Credentials	What were the researcher's credentials? *E.g. PhD, MD*	
3.	Occupation	What was their occupation at the time of the study?	
4.	Gender	Was the researcher male or female?	
5.	Experience and training	What experience or training did the researcher have?	
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? *E.g. Personal goals, reasons for doing the research*	
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? *E.g. Bias, assumptions, reasons and interests in the research topic*	
Domain 2: Study design			
Theoretical framework			
9.	Methodological orientation and theory	What methodological orientation was stated to underpin the study? *E.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis*	
Participant selection			
10.	Sampling	How were participants selected? *E.g. purposive, convenience, consecutive, snowball*	
11.	Method of approach	How were participants approached? *E.g. face-to-face, telephone, mail, email*	
12.	Sample size	How many participants were in the study?	
13.	Non-participation	How many people refused to participate or dropped out? What were the reasons for this?	
Setting			
14.	Setting of data collection	Where was the data collected? *E.g. home, clinic, workplace*	
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	

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16.	Description of sample	What are the important characteristics of the sample? *E.g. demographic data, date*	
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	
20.	Field notes	Were field notes made during and/or after the interview or focus group?	
21.	Duration	What was the duration of the interviews or focus group?	
22.	Data saturation	Was data saturation discussed?	
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	
25.	Description of the coding tree	Did authors provide a description of the coding tree?	
26.	Derivation of themes	Were themes identified in advance or derived from the data?	
27.	Software	What software, if applicable, was used to manage the data?	
28.	Participant checking	Did participants provide feedback on the findings?	
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? *E.g. Participant number*	
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	
31.	Clarity of major themes	Were major themes clearly presented in the findings?	
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	

When submitting your manuscript via the online submission form, please upload the completed checklist as a Figure/supplementary file.

If you would like this checklist to be included alongside your article, we ask that you upload the completed checklist to an online repository and include the guideline type, name of the repository, DOI and license in the *Data availability* section of your manuscript.

Developed from: Allison Tong, Peter Sainsbury, Jonathan Craig, Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups, International Journal for Quality in Health Care, Volume 19, Issue 6, December 2007, Pages 349–357, https://doi.org/10.1093/intqhc/mzm042