

BMJ Open Pandemic experiences of family physicians infected with the COVID-19: a qualitative study

İbrahim Efe Efeoğlu , Ömür Kılınçarslan 

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ABSTRACT

Objectives Family physicians are usually patients' first point of contact with primary healthcare. This study aims to understand the experiences of family physicians who were infected with the COVID-19 and started working again.

Study design and setting This qualitative study was conducted on 18 different family health centres in Adana. Data collection was performed through 18 interviews, each lasting an average of 46.6 min. The data were analysed using the qualitative content analysis method.

Participants The study included 18 family physicians (9 women and 9 men), and there were no significant differences between them by gender or seniority.

Results The results of the study have shown that family physicians who were infected with the COVID-19 and started working again have experienced high levels of anxiety at work. In addition, due to the fear of being reinfected, family physicians' social relations with their colleagues have decreased. The results are discussed under two themes: anxieties and social relationships.

Conclusion In primary healthcare services, family physicians play a vital role during the pandemic. Many family physicians either lost their lives or got infected with the virus, recovered and worked in difficult conditions for a long time. Understanding the experiences of family physicians during the pandemic when they underwent COVID-19 and after they recovered could help to protect their psychological health and improve their work conditions.

INTRODUCTION

During the COVID-19 pandemic, healthcare workers and healthcare systems have faced many difficulties.^{1 2} Especially doctors have had heavy workloads in the countries affected by pandemic.^{3 4} They also face a variety of difficulties such as new and frequently changing protocols, working with personal protective equipment, providing care for rapidly deteriorating patients and assuming the duties of their sick colleagues.⁵

Healthcare workers are under a high risk of exposure to the virus.⁶ Therefore, many doctors in nearly all fields have been infected with and died of COVID-19.^{7 8} COVID-19 could be transmitted from infected people

Strengths and limitations of this study

- The research design provides an opportunity to examine the family physicians' experiences in depth.
- The data were analysed using the qualitative content analysis method which could provide in-depth explanations about specific environments and phenomena.
- Participants of the research have at least 15 years of professional experience.
- In this study, only family physicians were interviewed among primary healthcare professionals.
- Due to the small and convenient sample and the nature of qualitative research, its results could not be generalised.

to others. It has a high mortality rate, and its potential lethality increases doctors' perceptions of danger and their worries about being infected.⁹ Many studies have reported that healthcare workers experience depression and anxiety due to the COVID-19 pandemic.^{10–12} In addition, various studies have reported that healthcare workers also experience insomnia, burnout, emotional exhaustion and somatic symptoms during the COVID-19 pandemic.^{10 13}

Most patients, including patients with respiratory symptoms, usually seek primary healthcare first.¹⁴ Therefore, primary healthcare and family physicians are extremely important in pandemic management.^{5 15} Due to the pandemic, many family physicians experience problems such as the risk of infection, stress, anxiety and increased workloads. Another difficulty that family physicians face during the pandemic is the increased risk of infection for their families.¹⁶ Many doctors have isolated themselves during the pandemic to protect their families from the virus, which has significantly disrupted their family lives.^{17 18} In other words, family physicians' duties put both their lives and their loved ones' lives at risk.¹⁹ Many family physicians continue to care for patients at risk of



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Business Administration, Adana Alparslan Türkeş Science and Technology University, Adana, Turkey

Correspondence to

Mr Ömür Kılınçarslan;
okilincarslan@atu.edu.tr

COVID-19 infection, even though they put themselves and their families at risk.²⁰

Aims and objectives

The present study aims to understand the experiences of family physicians who were infected with COVID-19, recovered and resumed work. Understanding experiences of family physicians during the period when they underwent COVID-19 and after they recovered could help to protect their psychological health and improve their work conditions. The objectives of this study are to investigate: (a) How did being infected with COVID-19 affect family physicians? (b) How did being infected with COVID-19 affect family physicians' working lives?

MATERIALS AND METHODS

Design

This study used a qualitative research design to present the experiences of the family physicians who were infected during the COVID-19 pandemic in detail, and the researchers collected detailed information in the field during the pandemic. Qualitative research primarily aims to examine events and phenomena in their entirety, rather than measuring or quantifying them.²¹ Therefore, qualitative studies could contribute to a better understanding of healthcare professionals' pandemic experiences.²⁰ Family physicians' real pandemic experiences are turned into words in this study.²²

Participant selection

Sample

Snowball and criterion sampling methods were used to select the study sample.²¹ The inclusion criterion was to be a family physician who had been infected with COVID-19. Information was obtained from the Adana Association of Family Physicians (ADANAHEP) and the Turkish Association of Family Physicians (TAHUP) to identify the participants. The authors sent an email to the managers of the association stating the research' purpose and importance. This email has also promised that the information of the participants will be kept confidential. Both associations provided a positive response within 3 days. As a result of the guidance of these associations, 20 family physicians were determined to be eligible to participate in the study. The authors called the family doctors and invited them to participate in the research. Six family physicians stated that they could not participate in the study because they were busy. To increase the number of participants, all interviewees were asked if they knew other family physicians who had been infected with COVID-19.

Data collection

The content and structure of the interview form were tested with two family physicians (box 1). Face to face semistructured interviews were conducted with 18 family physicians by both authors from 24 December 2020 to 8 February 2021. It was determined that when participants'

Box 1 Interview guideline

1. What did you feel while you were suffering from COVID-19?
2. What changed in your work life after you got infected with COVID-19?
3. How did being infected with COVID-19 affect your relationships with your colleagues?
4. How did being infected with COVID-19 affect your relationships with your patients?
5. Do you think you are fully recovered from COVID-19?

responses started to show similarity, there was no need to conduct further interviews. Each interview lasted an average of 46.6 min and was recorded to prevent data loss. The analyses continued until March 2021.

Data analysis

The data were analysed using the qualitative content analysis method. In qualitative content (thematic) analysis, similar data are coded and combined, and patterns and themes are created by classifying the data systematically to interpret textual data.²³ In this study, in the first phase of the qualitative content analysis, both researchers transcribed verbatim 280 pages of recorded interviews to NVivo V.12 Plus.²⁴ By comparing all the data repeatedly in multiple readings, the researchers obtained a sense of the whole. Then, they excluded data that were unrelated to the research purposes from the analysis. Thus, they could clearly focus on the essential data regarding the experience of family physicians. They created codes after reading the remaining data many times, identified the initial concepts and categorised them. Next, they used first-order codes or simple explanatory statements in conceptual coding.²⁵ Then, during axial coding, they created categories by combining the codes that had close meaning relationships with each other and determined the main themes based on the meaning relationships between these categories. Finally, they explained and interpreted the findings obtained by identifying the patterns between the themes, categories and codes.^{26 27}

The researchers tried to manage the data meticulously, including the interview transcripts and field notes by using NVivo V.12 Plus which has the classification feature.²⁵ Moreover, during the interviews, researchers summarised the participants' answers to confirm the correctness of what they understood. They also received peer debriefings from two experts during the study. An expert in qualitative research examined the field notes, interview protocols, coding schemes and interview transcripts to assess whether the results were consistent. The other expert provided technical support to the researchers on family medicine during the coding process and the formation of the themes.²⁸

RESULTS

This study included 18 family physicians (9 females and 9 males) who had been working as family physicians since 2008, when the practice of family medicine was

Table 1 The family physicians' introductory characteristics

Participants	Age	Gender	Interview duration (min)
FP1	50	Male	65
FP2	46	Female	56
FP3	54	Male	42
FP4	48	Male	53
FP5	51	Male	36
FP6	49	Female	47
FP7	44	Female	63
FP8	51	Female	61
FP9	50	Female	29
FP10	43	Male	29
FP11	50	Female	32
FP12	57	Male	65
FP13	50	Female	35
FP14	48	Male	44
FP15	51	Male	52
FP16	50	Female	35
FP17	46	Female	33
FP18	52	Male	62

introduced in Turkey. Their mean age and professional experience were 49.4 (min. 43, max. 57) and 25.1 years, respectively. Each family physician was responsible for 1500–3500 people in their districts. They were providing care for 60–90 patients a day on regular days; however, during the pandemic, the number of patients who visited their outpatient clinics decreased by half. Moreover, they had new daily duties, such as calling patients with COVID-19 on the phone to check their health. They also had critical missions in vaccination and filiation. Finally, they were working 8 hours a day in normal shifts during the pandemic. [Table 1](#) shows their introductory characteristics.

The results of the study have shown that family physicians who were infected with the COVID-19 and started working again have experienced high levels of anxiety at work. In addition, due to the fear of being reinfected, family physicians' social relations with their colleagues have decreased. The results are discussed under two main themes: anxieties and social relationships.

Anxieties

The family physicians felt fear and anxiety when they found out that they were infected with COVID-19; particularly about whether they had transmitted COVID-19 to their family members or other colleagues. Moreover, family physicians experienced high levels of anxiety during the illness because of the fear of death and their concerns about what would happen to their families.

I wondered whether I had infected my children as soon as I learned that I had the disease. Because we live together, and this made me feel uneasy. (FP5)

When I caught the disease, I felt anxious. There are people dying in front of you. There are patients in intensive care. There are people who cannot breathe. Will I be taken to the intensive care unit? Will I go through what they go through? Am I going to die? What will happen to my children and wife if I die? I felt very anxious about these issues. (FP11)

Another important reason for a high level of anxiety for family physicians within the workplace is the risk of reinfection. Family physicians have admitted that COVID-19 is more serious and dangerous for reinfected people in comparison to the first-time infected ones. Therefore, they were more cautious about the hygiene rules.

I am so afraid of getting reinfected. I will continue to follow the face mask and social distancing rules. This time, we are much more cautious. The virus is very dangerous and is nothing like a normal influenza virus. It has very bad effects. (FP6)

Family physicians have also experienced anxiety during the examination of patients much more due to the possibility of reinfection. Therefore, they have used anamnesis, which is based on patients' statements rather than physical examination. This change could be considered a professional ethical problem. However, the family physicians have stressed that they reduced the likelihood of reinfection with the virus through anamnesis.

I am an old physician. I am always in more contact with the patients than others, but we started to perform fewer procedures so that the patients spend less time in the outpatient clinic. We tried to perform examinations that are based more on the patients' visual features and statements, which was an attempt to reduce the risk of infection by reducing the time the patients spent in the clinic. (FP12)

During the pandemic period, family physicians have lived high levels of anxiety. Many family physicians are experiencing psychological problems due to increased anxiety within the workplace. For instance, some family physicians have become depressed and increased their anti-depressant dosages.

There has been enormous levels of anxiety and depression among healthcare professionals. I have colleagues who recovered from COVID-19 and developed depression. I am one of them. I also have colleagues who increased the dosages of their antidepressants on their own. (FP14)

Social relationships

The family physicians were more cautious in their relationships with their colleagues after they recovered from COVID-19. The lack of safety in the work environment of family physicians due to the considerable risk of infection has weakened family physicians' social relations with their colleagues causing them to feel increasingly lonely at the

workplace. Having lunch with colleagues in the work environment and chatting have been replaced by spending time alone in a room. Thus, family physicians have become increasingly isolated in the work environment.

Sharing with our colleagues has decreased. We used to celebrate our birthdays. Now that is finished. We have all become isolated. We have all locked ourselves in our rooms. (FP2)

When it comes to family physicians' relationships with their patients, the perspective of family physicians towards patients with COVID-19 has changed after they contracted the disease. Family physicians were better able to empathise with patients with COVID-19 in terms of anxiety and emotions felt during the illness.

I try to give more logical suggestions to my patients because I had the same disease. I began to empathize with my patients more easily. I understood what they felt. I began to be more understanding with my patients. (FP8)

DISCUSSION AND CONCLUSION

This study aims to understand the experiences of family physicians who were infected with COVID-19, recovered and resumed work. The results of the study have shown that family physicians who were infected with the COVID-19 and started working again have experienced high levels of anxiety at work. Indeed, the COVID-19 pandemic has had a devastating impact on the working conditions of family physicians. The pandemic has far-reaching psychological effects on family physicians, and many struggles with burnout, exhaustion, fatigue, depression and anxiety.¹⁰⁻¹² Similarly, a study is shown that infected healthcare professionals experienced anxiety and depressive symptoms much more than healthy healthcare professionals.¹² Family physicians' anxieties are associated with fears of being reinfected and infecting family members. Similar to the research results, previous studies have also found that healthcare professionals experience fear of getting infected and infecting their families.^{9 29 30} However, many doctors have continued to provide care for patients with COVID-19 despite the risk to themselves and their families.²⁰

Attention to the mental health and well-being of healthcare professionals are a critical aspect of pandemic management. There are many factors that negatively affect the well-being of doctors during the COVID-19 period including long working hours in harsh environments, having to work with personal protective equipment for long periods of time fear of infecting loved ones with COVID-19.³¹ All healthcare professionals need more psychological support to protect their mental health during the COVID-19 period. The results of our study have shown that some of the psychiatric symptoms observed in infected family physicians could lead to more serious psychological illnesses in the future. Therefore,

health authorities should provide psychological support to protect the well-being of family physicians.⁵ For instance, a digital learning package was developed in the UK to protect the psychological health of healthcare workers. This e-package includes evidence-based guidance and support on psychological health for all UK healthcare professionals.³² Communicating with psychologists via telehealth could enable healthcare professionals to express their negative feelings, talk actively about the challenges they face and express personal feelings they experience while working. Professional guidance from psychologists could also help healthcare professionals alleviate their negative emotions, correct their negative cognition and enable them to cope with work better.³³

Decreased socialisation among people has negative effects on their mental health and well-being.³⁴ The lack of safety in the work environment of family physicians due to the considerable risk of infection has weakened family physicians' social relations with their colleagues, causing them to feel increasingly lonely at the workplace. How could family physicians be more socialised during the pandemic period? Using online technologies could allow the provision of psychosocial supports while maintaining physical distance.³⁵ For instance, digital communication platforms could provide a peer support network for healthcare professionals to share experiences, which could foster resilience and friendship among healthcare professionals.³³

Family physicians have been extremely exhausted due to the deaths of their colleagues, the unsafe working conditions caused by the pandemic and limited social and family life. In order to increase the well-being of family physicians, the safety of the working environment should be increased and working conditions should be improved. Therefore, it is necessary to establish open communication in the working environment, provide personal protective equipment and enable family physicians to take time to rest. In addition, reducing patient density in family health centres could increase safety in the workplace.³⁶ Exercising, paying attention to sleep quality, socialising with family and loved ones through virtual applications could also reduce the level of stress and anxiety family physicians feel.³⁷

When it comes to organisational recommendations, health managers could provide financial incentives such as extra premiums and bonuses to increase family physicians' motivation. They could also take initiative about working hours of family physicians to facilitate family-work balance in order to reduce their anxiety levels. Similarly, effective leadership and a positive work culture could be a solution offered to reduce the anxiety of family physicians at work.³⁷

The limitations of the study should be taken into account when interpreting the results. First, due to the small and convenient sample and the nature of qualitative research, the results could not be generalised. In addition, it is not possible to detect possible sampling errors in snowball and criterion sampling. Therefore, snowball and criterion samples should not be considered representative of

the population studied.³⁸ Second, the family physicians in this study had at least 15 years of professional experience. Family physicians who have started working recently could have different pandemic experiences. Third, since the researchers only interviewed with family physicians in this study, they could not assess the effects of the pandemic on other primary healthcare professionals in Turkey.

The COVID-19 pandemic has profoundly affected family physicians' experiences and psychological well-being. Many family physicians either have lost their lives or got infected with the virus, recovered and worked in difficult conditions for a long time during the pandemic period. Study results have indicated that family physicians experience high levels of anxiety at work. In order to reduce the anxiety of family physicians, health authorities should evaluate family physicians' experiences and expectations while preparing strategies, plans and policies for healthcare systems in the pandemic period. Moreover, health authorities should provide ongoing psychological support to family physicians in order to protect family physicians' psychological health and improve their working conditions.

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Ethics approval This study involves human participants. Ethical approval for the study was obtained from Adana Alparslan Türkeş Science and Technology University (ID of the approval: E-76907350-050.01.04-2039). The participants' verbal and written informed consent was also obtained. They were presented as FP1, FP2, FP3 ... FP18 in the study to keep their real identities confidential.

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Data availability statement Data are available upon reasonable request. Anonymised interview data has not been shared to a repository to protect the anonymity of participants who could be identified by their unique roles in their organisations.

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ORCID iDs

İbrahim Efe Efeoğlu <http://orcid.org/0000-0003-3928-4568>
Ömür Kılınçarslan <http://orcid.org/0000-0003-3378-7607>

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