Original Research / Orijinal Araştırma

A Qualitative Research on the Reflection of the Covid-19 Pandemic on Primary Healthcare Services and Family Physicians: The Physician-Patient Relationship in Turkey

Covid-19 Pandemisinin Birinci Basamak Sağlık Hizmetleri ve Aile Hekimlerine Yansıması: Türkiye'de Hekim-Hasta İlişkisi

Gülçin Gökçenur KARATAŞ [1], Erdal EKE [2]

Abstract

Background and Aim: This research investigates the reflection of the COVID-19 pandemic on primary healthcare services and family physicians. This study analyzes the challenges faced by family physicians. This research seeks to contribute to the literature on the physician-patient relationship and provide insights for future pandemic preparedness.

Material and Method: A qualitative research design was employed to explore physicians' perspectives on the physician-patient relationship during the COVID-19 outbreak. The study was conducted through interviews with primary healthcare centers (PHCs) and family physicians (FPs) in Antalya, Turkey, between March 10, 2023, and April 11, 2023. The sample consisted of 21 physicians working in primary healthcare centers in Antalya, selected using criterion and snowball sampling methods.

Results: These themes were identified as 'Physician-Patient Interaction,' 'Sample Collection and Medication', and 'Patient Satisfaction.'

Conclusion: This study reveals the reflections of the COVID-19 pandemic on primary health care and family physicians. The findings show that physician-patient communication has weakened during the pandemic, patient satisfaction has varied, and physicians have faced ethical concerns. In addition, it has been determined that physicians' professional satisfaction has decreased due to increased workload and psychological pressure. The results show that primary health care services should be strengthened and physicians should be supported in similar crisises in the future.

Key Words: COVID-19, Primary Healthcare Services, Family Physician, Pandemic, Physician-Patient Relationship

Özet

Arka Plan ve Amaç: Bu araştırma, COVID-19 pandemisinin birinci basamak sağlık hizmetleri ve aile hekimleri üzerindeki yansıması, özellikle hekim-hasta ilişkisi bağlamında incelemektedir. Bu araştırma, aile hekimlerinin karşılaştıkları zorlukları ve uyum stratejilerini analiz ederek, hekim-hasta ilişkisine ilişkin literatüre katkıda bulunmayı ve gelecekteki pandemi hazırlıkları için içgörüler sağlamayı amaçlamaktadır.

Gereç ve Yöntem: COVID-19 salgını sırasında hekimlerin hekim-hasta ilişkisine ilişkin bakış açılarını keşfetmek için nitel bir araştırma tasarımı kullanılmıştır. Çalışma, 10 Mart 2023 ile 11 Nisan 2023 tarihleri arasında Türkiye'nin Antalya kentindeki birinci basamak sağlık hizmetleri (PHC'ler) ve aile hekimleri (FP'ler) ile yapılan görüşmeler yoluyla yürütülmüştür. Örneklem, ölçüt ve kartopu örnekleme yöntemleri kullanılarak seçilen Antalya'daki birinci basamak sağlık hizmetlerinde çalışan 21 hekimden oluşmaktadır.

Bulgular: Bu temalar "hekim- hasta etkileşimi", "numune alımı ve ilaç" ve "hasta memnuniyeti" olarak belirlenmiştir.

Sonuç: Bu çalışma COVID-19 pandemisinin birincil sağlık bakımı ve aile hekimleri üzerindeki yansımalarını ortaya koymaktadır. Bulgular, pandemi sırasında hekim-hasta iletişiminin zayıfladığını, hasta memnuniyetinin değiştiğini ve hekimlerin etik kaygılarla karşı karşıya kaldığını göstermektedir. Ayrıca, artan iş yükü ve psikolojik baskı nedeniyle hekimlerin mesleki memnuniyetinin azaldığı belirlenmiştir. Sonuçlar, birincil sağlık bakım hizmetlerinin güçlendirilmesi ve hekimlerin gelecekte benzer kriz durumlarında desteklenmesi gerektiğini göstermektedir.

Anahtar Sözcükler: COVID-19, Birinci Basamak Sağlık Hizmetleri, Aile Hekimi, Pandemi, Hekim-Hasta İlişkisi

Geliş tarihi / Received: 20.03.2025 Kabul tarihi / Accepted: 04.07.2025

[1] Freelance Researcher. Dr. Health Administration, Antalya, Turkey
[2] Süleyman Demirel University, Health Administration Department, Isparta, Turkey

Address for Correspondence / Yazışma Adresi Gülçin Gökçenur Karataş Duraliler neighborhood 4582 street floor 13 flat 40 Antalya/Turkey

E-posta: gkyurt84@gmail.com Tel: +90 552 393 74 05

Karataş GG. Eke E. ***A Qualitative Research on the Reflection of the Covid-19 Pandemic on Primary Healthcare Services and Family Physicians: The Physician-Patient Relationship in Turkey.*** *TJFMPC, 2025; 19 (3) :266-274*

DOI: 10.21763/tjfmpc.1661974

Background

Healthcare services aim to improve people's health and protect them from diseases by providing continuous and complete care.[1] Primary health care (PHC) is the first place people go when they have health problems. It plays an important role in identifying health issues, giving the right treatment, and sending patients to specialists when needed.[2,3] Family physicians (FPs) are key healthcare workers who manage patient care in these settings.[4] On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic, which created a serious global health crisis.

This situation put a lot of pressure on PHCs and family physicians. Even with many challenges, they continued to provide care on the frontlines. One big problem was the lack of clear information about how the virus spreads, which made cases rise quickly.[5] Also, increased fear and uncertainty among people made communication between doctors and patients harder. Because of this, it became essential to rebuild trust in physicians and make sure everyone had fair access to healthcare to keep good physician-patient relationships and quality care.

This study looks at the problems family physicians faced during the pandemic. It adds to what we know about physician-patient communication and gives ideas for handling future pandemics. While some studies talk about physician-patient relations during COVID-19, few look at it from the perspective of primary healthcare and family medicine.[6,7,8,9,10,11,12]

To fill this gap, we used a qualitative approach to learn about the experiences of family physicians working in PHCs during COVID-19. We focused on how they interacted with patients while being the first contact point. We asked family physicians and primary care workers five questions about their experiences during the pandemic. This paper shares what we learned and shows how COVID-19 changed primary healthcare. The research questions formulated to achieve this aim are as follows:

- How do you think the COVID-19 pandemic has affected the functioning of your primary healthcare system?
- How do you believe the COVID-19 pandemic has influenced the physician-patient relationship in primary healthcare centers (PHCs)?
- As a family physician, what professional impacts has the COVID-19 pandemic had on you?
- How has the COVID-19 pandemic affected your personal life as a physician?
- What solutions or strategies do you propose for managing a similar pandemic in the future?

Methods

Research Method and Design

Qualitative research methods were used in this study to better understand the participants' views.[13] Qualitative research was often defined as "research aimed at understanding the reasons behind social life."[14] It was described as a type of research that used methods such as observation, interviews, and document analysis to realistically and fully understand perceptions and events in a natural setting.[15] Given this study focused on the impact of the COVID-19 pandemic on primary health care (PHC) and the family medicine system, especially regarding the physician-patient relationship, the qualitative method was deemed appropriate. Additionally, this approach was chosen because it allowed for an in-depth exploration of the personal experiences of physicians working in PHCs, particularly during the widespread COVID-19 pandemic. The case study design was selected for the research, specifically employing the critical incident case study and single case study methods. In this study, the researcher conducted field interviews with PHCs and family physicians in the sample to better understand the extent to which they were affected by the events during the COVID-19 period and to illuminate their experiences in Turkey.

Research Population and Sample

The research group consisted of 21 physicians working in primary health care services in the city center of Antalya. Participants were recruited using criterion and snowball sampling methods, which are among the purposive sampling techniques. The study initially began with a physician coded as FP 3. Data collection was concluded with the 21st participant, as data saturation was considered to have been reached at the point where meaningful repetition occurred and no new information emerged.

Data Collection Method and Process of the Research

In this study, data collection methods included interviews, observations, document reviews, and life stories.[15] However, no diaries, documents, or other records related to the topic were available.[16] Therefore, data triangulation was not performed, and the primary data collection methods were participant interviews, direct observations, and the researcher's field notes and reflections. The study aimed to observe the impact of primary health care (PHC) and family physicians (FPs) during the COVID-19 pandemic by collecting and analyzing various types of information. A semi-structured interview form developed by the researcher served as the main data collection tool. Participants were informed about the research in advance and were assured that their identities would remain

confidential. To ensure anonymity, the researcher assigned code names to the participants. A voice recorder was used during the interviews after obtaining consent from the participants.

Ethical Aspects of the Research

The scientific study titled 'Reflection of the COVID-19 Pandemic on PHCs and FPs, Physician-Patient Relationship in Turkey' has been unanimously approved as compliant with ethical principles and human rights in both scope and application. This approval was granted by the Social and Human Sciences Ethics Committee of Süleymen Demirel University in Isparta, Turkey, under decision number E-87432956-050.99-452238, dated February 21, 2023. After each participant received detailed information about the study's purpose, procedures, risks, and their rights, they voluntarily agreed to participate and provided official consent. Signed "Informed Voluntary Consent" documents were obtained from the physicians participating in the study.

Evaluation of Data

Qualitative data analysis was a process in which data obtained from data collection methods such as observation, interview, and document analysis were given meaning through coding techniques, themes were discovered, and ultimately, the data were reported.[17] In this study, the researcher determined which codes were weak and unnecessary, organized them accordingly, and concluded the coding process when code saturation was reached. After the codes were classified, they were grouped under main themes. Each code was reviewed to ensure its suitability for the assigned theme.[18]

In this study, thematic analysis was chosen to examine how the COVID-19 pandemic impacted PHCs and FPs. In this context, the impact of the pandemic on the participants was analyzed in concerning to the physician-patient relationship based on the interview questions.

Result

Participants Description

The study was conducted through interviews with PHCs and FPs in Antalya, Turkey, on March 10, 2023, and April 11, 2023. Physicians affected by the COVID-19 outbreak were selected using purposive sampling methods, specifically criterion and snowball sampling. The snowball sampling technique is particularly effective for reaching new participants through referrals from initial participants, making it especially useful in studies involving hard-to-reach populations.[19]

Table 1. *Characteristics and Interview Information of 21 Participants Working in Primary Healthcare and Family Physicians Affected by the COVID-19 Pandemic (2023)*

No	QUALITATIVE INTERVİEW INFORMATION FORM						
	Code Name	Interview Method	Marital Status	Age	Place Of Duty	Term Of Servıce	Interview Duration
1	Physician with FP 1 code	Polyclinic Room	Married	55	Altınkum FHC	15	28 min. 5 sec.
2	Physician with FP 2 code	Polyclinic Room	Single	53	Duraliler FHC	13	31 min. 2 sec.
3	Physician with FP 3 code	Zoom Platform	Married	54	Meydankavağı FHC	13	38 min. 2 sec.
4	Physician with FP 4 code	Polyclinic Room	Married	53	Uncalı FHC	15	32 min.
5	Physician with FP 5 code	Polyclinic Room	Married	50	Uncalı FHC	13	35 min. 3 sec.
6	Physician with FP 6 code	Polyclinic Room	Married	55	Karşıyaka FHC	12	32 min. 2 sec.
7	Physician with FP 7 code	Polyclinic Room	Married	52	Toros FHC	14	25 min. 2 sec.
8	Physician with FP 8 code	Polyclinic Room	Married	55	Duraliler FHC	13	27 min. 3 sec.
9	Physician with FP 9 code	Polyclinic Room	Married	53	Pınarbaşı FHC	13	17 min. 1 sec.
10	Physician with FP 10 code	Polyclinic Room	Married	48	District Health Directorate Family Health Center	12	1 hour 4 min.
11	Physician with FP 11 code	Polyclinic Room	Married	61	Siteler FHC	12	26 min. 10 sec.

Table 1(Continued). *Characteristics and Interview Information of 21 Participants Working in Primary Healthcare and Family Physicians Affected by the COVID-19 Pandemic (2023)*

12	Physician with FP 12 code	Polyclinic Room	Married	43	İbn-i Sina FHC	10	38 min. 6 sec.
13	Physician with F1 code	Participant Room	Married	28	District Health Directorate Filiation	3	20 min.
14	Physician with F2 code	Participant Room	Married	49	District Health Directorate Filiation	18	1 hour 20 min.
15	Physician with F3 code	Participant Room	Married	39	Filiation Coordination	13	55 min.
16	Physician with F4 code	Participant Room	Married	56	KETEM Konyaalti Filiation-	26	32 min. 2 sec.
17	Physician with F5 code	Participant Room	Married	49	District Health Directorate Filiation	9	1 hour 11 min.
18	Physician with F6 code	Participant Room	Married	55	Filiation Coordination	30	28 min.
19	Physician with F7 code	Participant Room	Married	49	KETEM Konyaalti Filiation	5	33 min.
20	Physician with F8 code	Participant Room	Single	37	KETEM Konyaalti Filiation	5	50 min. 1 sec.
21	Physician with F9 code	Participant Room	Married	56	District Health Director	17	1 hour 5 min.

As shown in Table 1, 12 participants were male and 9 were female. Twelve participants worked as family physicians. The other 9 worked as contact physicians. One participant changed from a family physician to the to contact team. All participants actively responded to the COVID-19 pandemic. The ongoing pandemic helped to get timely and effective answers. Physicians in primary healthcare received the code ‘F’ (filiation). Family medicine physicians received the code ‘FP’ (family physician).

Interview Findings

This section presents the findings from interviews conducted with general practitioners working in primary care during the COVID-19 pandemic. The responses to the five main questions were coded and analyzed. The resulting themes were developed based on the specific contextual topics of the study and are illustrated in the concept map shown in Figure 1.

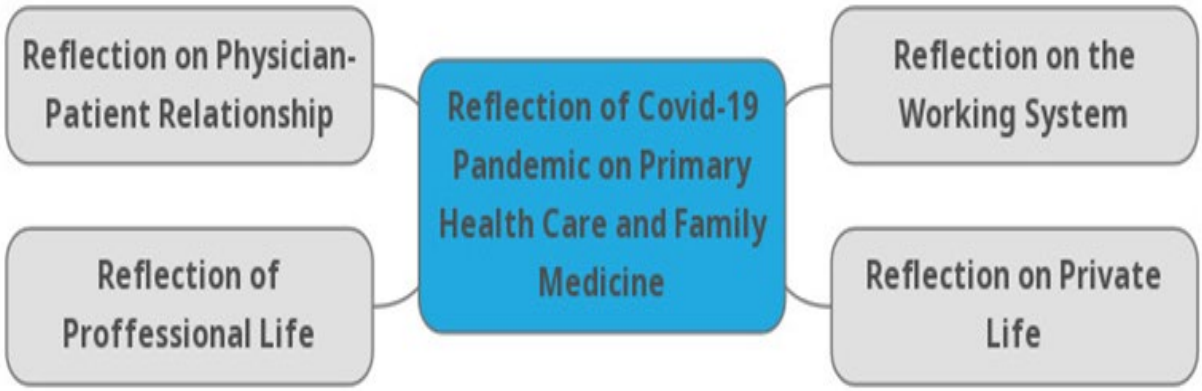

Figure 1. *Concept Map on the Reflection of the COVID-19 Pandemic on Primary Health Care and Family Medicine*

The reflection of the COVID-19 pandemic on PHCs and FPs was outlined above, with the study conducted around four key themes. Due to the article's page limitations and to avoid excessive length, only the theme regarding the reflection of the COVID-19 pandemic on the physician-patient relationship was discussed here. For more detailed information on the other themes, readers were referred to the author's doctoral thesis.[20]

Evaluation of Findings on Physician-Patient Relationship in the COVID-19 Pandemic

The physician-patient relationship was evaluated under the theme of "Physician-Patient Relationship and Care". This theme was further explored through three sub-themes: "Physician-Patient Interaction", "Sample Collection and Medication", and "Patient Satisfaction". The concept map for the physician-patient relationship category is shown in Figure 2.

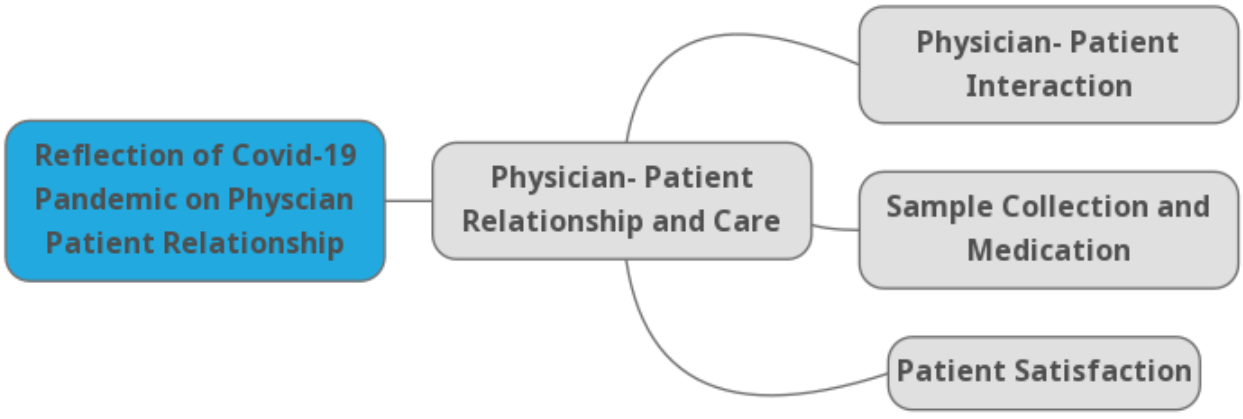

Figure 2. *Concept Map on Physician-Patient Relationship in the COVID-19 Pandemic Physician-Patient Relationship and Care*

The table below includes short descriptions and direct quotes from physicians to illustrate their experiences during the pandemic.

Table 2. *Sub-Themes and Sample Quotes Related to the Theme "Physician-Patient Relationship and Care" During the COVID-19 Pandemic*

Main Theme	Sub-Theme	Description	Full Sample Quote (with Code Name)
Physician-Patient Relationship and Care	**Physician- Patient Interaction**	Some participants stated that physicians' psychological conditions, workload, unclear job descriptions, inadequate protective equipment, and excessive responsibilities led to a decrease in communication with patients, which was not the same as before. Participants also reported that the introduction of physical distancing disrupted communication.	**FP7:**"Cancer screenings were significantly delayed, and once they resumed, a considerable number of cases were diagnosed. The issue was not an actual increase in disease incidence, but rather delays in diagnosis due to patients being unable to access routine tests such as mammography and HPV screening." **F4:** "Every other day, I worked sixteen-hour shifts. When my shift ended and I was heading home, the burden it placed on me was this: Did I protect myself well enough? I was going home with the fear and anxiety of possibly infecting my child and spouse, or getting sick myself." **FP1:** "In the beginning, we didn't have protective equipment—for example, no masks. There were times when we simply couldn't find masks. Of course there were! I couldn't find a mask. How were we supposed to treat patients? The masks we had were insufficient. We were caught unprepared, and the health directorate didn't provide them."
	Sample Collection and Medication	Physicians expressed that they worked extensively and intensively in sample collection. Additionally, they emphasized that prescribing medications to patients without knowing their effectiveness was not appropriate.	**F7:** "For example, sometimes there would be a disabled patient who couldn't even come to the door for testing. I had to go inside to take the PCR test… Everything became a problem. Yes—like, 'Where are you going? Who are you going to?" **F8:** "There was a night, around 11 PM, when I realized I was of no use to myself anymore, and I had no words left to heal. I mean, I shouldn't have been that exhausted." **F2:** "There were many people who really didn't want to use the medications. Since the drugs were new, we couldn't provide much information. We kind of knew, but I couldn't just tell you that it might cause infertility or harm your liver. Yes, it's impossible to say that. Sometimes we just said, 'Use it, you'll get through it more easily." **F4:** "I prescribed medication. There were many doubts about those drugs; later it became clear that they were actually given unnecessarily." **F7:** "Those medications caused a lot of trouble for people; they bought them in large quantities and distributed them to everyone. They gave them to anyone suspected of having COVID-19, without even checking if they needed them. It was a very difficult time. Yes, that's their fault. We didn't lay the groundwork..."
	Patient Satisfaction	Some participants reported a decline in patient satisfaction due to unrealistic expectations, waiting times, and physician burnout.	**FP8:** "So, we informed all the patients. We administered all the vaccines two, three, four doses. But we didn't turn away anyone who made an appointment and came. So, was there any patient dissatisfaction? Our people are somewhat spoiled in our sector, that's for sure. For example, when you go to the title deed office, you wait for three hours. But when you come here, if you wait for fifteen minutes, you complain, saying, 'Oh, I've been waiting since morning.' This isn't an emergency room, after all. You also have to allocate some time for those who walk in..." **FP 12: "**For example, the phone application, I think they liked this application, of course many of them liked it. They liked it, so it makes them feel interested." **F4:** "I was part of a very busy group responsible for taking samples. They had scheduled sample-taking shifts for us together. On one of those shifts, I took samples from 105 people in a single day. We were doing sample-taking shifts, and after one of those shifts, I got sick." **F5:** "Of course, there are people who do not want to enter quarantine, and we had to put some pressure on them. They need to be encouraged to comply. Regarding satisfaction, some citizens may have reservations about the contact tracing teams because after their interview with the teams, they are required to go into quarantine." **FP 6:** "I feel that we are a professional group that has been treated unfairly. No one calling or checking on us made me feel lonely. I felt even more isolated by working harder. During the curfews, spending time at home watching media news, I truly felt exhausted."

Discussion

The declaration of COVID-19 as a global pandemic led to major disruptions in health systems worldwide. In Turkey, this crisis posed significant challenges for primary healthcare centers (PHCs) and family physicians (FPs) due to the deadly nature of the virus and the unprecedented scale of the outbreak. This study revealed that family physicians were severely affected by the pandemic, highlighting ethical dilemmas in medical care, a weakening in physician-patient communication, and notable changes in patient satisfaction. These findings are consistent with national and international studies reporting widespread healthcare disruptions during the pandemic. [6,7,9,22,23,24,25]

One of the most important findings was that physicians often prescribed medications to patients who were quarantined, tested positive for COVID-19, or were suspected of infection. However, many physicians acknowledged that this practice was inappropriate, as the efficacy and side effects of these drugs could not be adequately monitored, thereby compromising patient safety. Similar issues have been documented in both national and international literature. [5,21,33] During the pandemic, physicians frequently had to provide treatment without strong clinical evidence, leading to serious ethical concerns. In Turkey, Önal (2020) and Atak (2020) reported that family physicians struggled to keep up with the rapidly changing COVID-19 treatment guidelines. [11,12] This ethical dilemma around off-label prescribing contributed to professional dissatisfaction. Additionally, Yuluğ et al. (2024) demonstrated that family physicians in Turkey prescribed antibiotics without sufficient clinical justification, posing significant risks to patient safety. [33] Vaughan et al. (2024) described this situation as "moral injury," as physicians were often required to follow protocols that conflicted with their clinical judgment.[5]

In addition to these findings, a decline in patient satisfaction was observed. Some participants reported that patient satisfaction decreased during the pandemic, mainly due to the increased workload and burnout experienced by physicians, which hindered effective doctor-patient communication.[5,11,22] The physical and psychological exhaustion among physicians not only reduced the quality of care but also increased patient dissatisfaction.[12,23] This decline in trust made healthcare less accessible, especially for vulnerable groups.[6,31] As a result, preventing physician burnout and enhancing mental health support became urgent priorities.[29] Telemedicine, particularly phone consultations with elderly patients, played a role in preserving patient satisfaction during this period. Similar findings were reported in studies from Europe and the United States. [8,10,23,24]

Physicians also reported that they spent less time with patients compared to the pre-pandemic period, which created further communication issues and negatively affected both care quality and physician well-being. In Turkey, several studies have shown that increased workloads led to reduced job satisfaction among family physicians. [11,12,29,30,31] Research by Hartavi ve Çelikay (2022), Yazıcıoğlu et al. (2022), and Ayaslıer et al. (2023) revealed widespread emotional exhaustion, unclear job roles, insufficient protective equipment, and excessive responsibilities among physicians. [29,30,31] These findings are consistent with the burnout and dissatisfaction reported in this study and indicate broader structural pressures placed on primary care during the pandemic.[30] Professional dissatisfaction and emotional fatigue further underscore the need for greater institutional and psychological support for family physicians. Prior studies have shown that burnout and fatigue reduce the quality of care and damage the physician-patient relationship. [5,22,23,25] Similarly, Melnikow et al. found that increased workload and limited resources significantly contributed to physician burnout. [28]

The COVID-19 study conducted across Europe supports these findings, reporting that primary care institutions faced serious challenges in service delivery, staff well-being, and patient safety during the pandemic. Physicians in various European countries struggled to adapt to frequently changing protocols, increasing workloads, and emotional exhaustion. However, Western European countries were able to manage these problems more effectively due to stronger digital infrastructure and administrative support. In contrast, access to and utilization of remote healthcare services in Turkey remained limited. [27] This study, therefore, not only highlights the clinical burden of the pandemic on primary care but also emphasizes the importance of digital transformation in maintaining the physician-patient relationship.[33,34] These international comparisons help to better understand the impact of the pandemic and improve preparedness for future public health crises. [23]

In conclusion, involving family physicians in health policy decision-making and systematically incorporating patient feedback can help improve both physician satisfaction and patient safety. This study highlights the structural and clinical impact of the COVID-19 pandemic on primary healthcare services in Turkey and underlines the urgent need for a more resilient, inclusive, and community-based primary care system.

Conclusion

This study revealed the effects of the COVID-19 pandemic on primary health care services and family physicians. The findings showed that physicians experienced burnout due to increased workload and psychological pressure during the pandemic. This burnout caused communication between physicians and patients to weaken, which resulted in varied patient satisfaction. Additionally, the limited use of digital health systems deepened communication problems. During the pandemic, medications were prescribed to patients without full knowledge of

their effectiveness, which raised significant ethical concerns. All these issues reduced physicians' professional satisfaction and increased the challenges faced during the pandemic.
The results demonstrated the necessity of strengthening primary health care and providing more support to physicians during similar health crises. It was found that family physicians needed regular training with continuously updated treatment protocols, effective psychosocial support programs, and reinforced digital health infrastructure to cope with increased workload and psychological pressure. Moreover, actively involving physicians' experiences and feedback in policy-making processes was shown to increase the resilience of primary health care services.

Presentations: This article is derived from a doctoral thesis and has not been presented in any professional setting aside from the doctoral thesis defense. The thesis is titled **"The Reflections of the COVID-19 Pandemic on Primary Healthcare Services and Family Physicians."** It was supervised by **Assoc.Prof.Dr.Erdal Eke** and completed in **2024** at **Süleyman Demirel University, Institute of Social Sciences, Department of Health Management.**

Financial Support: This research has not received any funding from any funding organization or sector.

Ethics Committee Permission: The scientific study titled 'Reflection of the COVID-19 Pandemic on PHCs and FPs, Physician-Patient Relationship in Turkey' has been unanimously approved as compliant with ethical principles and human rights in both scope and application. This approval was granted by the Social and Human Sciences Ethics Committee of Süleyman Demirel University, Turkey, under decision number E-87432956-050.99-452238, dated February 21, 2023. After each participant received detailed information about the study's purpose, procedures, risks, and their rights, they voluntarily agreed to participate and provided official consent. Signed "Informed voluntary consent" documents were obtained from the physicians participating in the study.

Conflict Disclosure: The authors declare that they have not received any financial support for this research.

Author contribution: Idea/Concept: E.E. and G. G. K.

Contribution of artificial intelligence: The artificial intelligence tool ChatGPT was utilized for assistance in correcting syntactically inverted sentences.

References

1. Naidoo, K., Schaefer, R., Jenkins, L. S., & Von Pressentin, K. B. The evolving role of family physicians during the coronavirus disease 2019 crisis: An appreciative reflection. African Journal of Primary Health Care and Family Medicine, (2020); 12(1), 1-4.
2. Rawaf, S., Allen, LN, Stigler, FL, Kringos, D., Quezada Yamamoto, H., & van Weel, C. Lessons on the COVID-19 pandemic for and by primary care professionals worldwide. European Journal of General Practice, (2020); 26 (1), 129–133.
3. Doğan E, Karavuş M, Hıdıroğlu S A. Qualitative Research to Evaluate the Problems Encountered by Primary Care Physicians Regarding Patients. The Journal of Turkish Family Physician. (2017); 8(1), 2-10.
4. WONCA Europe. The European Definition of General Practice/Family Medicine, Barcelona. (2002); 1-11.
5. Vaughan C, Lukewich J, Mathews M, Marshall E G., Hedden L, Spencer S, ... & Brown J B. Family physicians' perspectives on the impact of COVID-19 on preventative care in primary care: findings from a qualitative study. Family practice. (2024): 41(4), 518-524.
6. Awadallah, N S., Czaja, A. S, Fainstad, T, McNulty, M C., Jaiswal, K R., Jones, T S, Rumack, C M. The impact of the COVID-19 pandemic on family medicine residency training. Family Practice, (2021); 38(Supplement_1), i9-i15.
7. Zhou Y, Ma Y, Yang WF, Wu X. Doctor-Patient Relationship During the COVID-19 Pandemic. BMC Family Practice. (2021); 22(1): 255.
8. Tabche C, Raheem M, Alolaqi A, Rawaf S et al. Effect of Electronic Health Records on Doctor-Patient Relationship in Arabian Gulf Countries. A Systematic Review. Frontiers in Digital Health. (2023); 5: 1252227.

9. Nwoga H O, Ajuba M O, Ezeoke U E. Effect of COVID-19 on doctor-patient relationship. International Journal of Community Medicine and Public Health. (2020); 7(12), 4690–4696.
10. Vilovic, T., Bozic, J., Vilovic, M., Rusic, D., Zuzic Furlan, S., Rada, M., & Tomicic, M. Family physicians' standpoint and mental health assessment in the light of COVID-19 pandemic—a nationwide survey study. International journal of environmental research and public health, (2021); 18(4), 2093.
11. Önal S, Gülsüm K., Telemedicine in Remote Patient Monitoring Applications During the Pandemic and Its Place in Primary Care. Clinical Medicine Family Medicine (2020); 12(3): 98-106.
12. Atak M, Şahin Ç E, Sezerol M A. Primary Health Care Services in Türkiye During the COVID-19 Pandemic. Önal AE. Public Health and COVID-19. (2020); 1, 129-134.
13. Ozden M, Saban A. Qualitative Study Paradigm and Theoretical Foundations. Ankara: Anı Publishing; (2019); 245.
14. Gürbüz S, Şahin F. Research methods in social sciences: Philosophy method analysis. Ankara: Seçkin Publishing; (2017); 426.
15. Yıldırım A, Şimşek H. Qualitative Research Methods in Social Sciences. Ankara: Seçkin Publishing House; (2008); 10(1), 366.
16. Yıldırım A, Şimşek H. Qualitative Research Methods in Social Sciences. Ankara: Seçkin Publishing House; (2013); 406.
17. Braun V, Clarke V. Using Thematic Analysis in Psychology. Qualitative Research in Psychology. (2006); 3(2), 77–101.
18. Merriam S B. Qualitative research. A guide to design and implementation: Revised and expanded from qualitative research and case study applications in education: The Jossey-Bass Higher and Adult Education Series; (2009); 322.
19. Patton M Q. Qualitative Research and Evaluation Methods (B. Bütün & S. B. Demir, Trans.). Ankara: Pegem Academy; (2014); 806.
20. Karataş G G, Eke E. The İmpact of the COVID-19 Pandemic on Primary Health Care and Family Physicians. SDU Journal of Health Management. (2024); 6(1), 28-55.
21. Khalil-Khan, A., & Khan, M. A. The impact of COVID-19 on primary care: a scoping review. Cureus, (2023); 15(1).
22. Mathews M, Idrees S, Ryan D, et al. System-Based Interventions to Address Physician Burnout: A Qualitative Study of Canadian Family Physicians' Experiences During the COVID-19 Pandemic. Int J Health Policy Manag. (2024); 13:8166.
23. Andreadis K, Muellers K, Ancker JS, Horowitz C, Kaushal R, Lin JJ. Telemedicine Impact on the Patient-Provider Relationship in Primary Care during the COVID-19 Pandemic. Med Care. (2023);61(Suppl 1): S83-S88.
24. Jeong Y, Crowell T, Devon-Sand A, Sakata T, Sattler A, Shah S, Tsai T, Lin S Building Pandemic-Resilient Primary Care Systems: Lessons Learned From COVID-19 J Med Internet Res (2024);26: e47667
25. Alkhamees AA, Aljohani MS, Kalani S, Ali AM, Almatham F, Alwabili A, Alsughier NA, Rutledge T. Physician's Burnout during the COVID-19 Pandemic: A Systematic Review and Meta-Analysis. International Journal of Environmental Research and Public Health. 2023; 20(5):4598.
26. Hoff T, Trovato K, Kitsakos A. Burnout Among Family Physicians in the United States: A Review of the Literature. Qual Manag Health Care. (2024);33(1):1-11.
27. Stummer FO, Voggenberger L, Gomez Pellin Md, et al. Insights into the use of telemedicine in primary care in times of the SARS-CoV-2 pandemic—a cross-sectional analysis based on the international PRICOV-19 study in Austria. BMC Prim Care. (2023);24(Suppl 1):218.
28. Melnikow J, Xing G, Miller ME, et al. Workplace support for physicians during the COVID-19 pandemic: Did it affect burnout? BMC Health Serv Res. (2024); 24:888.
29. Hartavi S, Çelikay Söyler H. Examination of psychological distress, burnout, and hygiene behaviors among primary healthcare workers during the COVID-19 pandemic. J Soc Humanit Adm Sci. (2022);5(11):1603–1617.
30. Yazicioglu B, Oruc MA, Ozdemir S. Evaluation of family physicians' anxiety during the COVID-19 process: provincial example from Turkey. BMC Psychol. (2022) Dec 17;10(1):313.
31. Ayaslıer AA, Albayrak B, Çelik E, Yıldız A, Ertuğrul B, Karaman M. Burnout in primary healthcare physicians and nurses in Turkey during COVID-19 pandemic. Prim Health Care Res Dev. (2023);24: e4.
32. Polat Yuluğ D, Öztürk B, Baydar Toprak O, Kocaoğlu G, Satar M, Öztürk M, et al. Physicians' irrational attitudes on the antibiotic prescribing for the treatment of COVID-19 in Turkey: A multicenter survey. BMC Health Serv Res. (2024); 24:650.
33. Sarkar MK, Dey S, Kumar R, Varshney S, Gupta P, Das Munshi B, Lnu R, Kumar A, Kumar V. Patients' satisfaction on telemedicine service in relation to COVID-19 and non-COVID-19 problems: a cross-sectional comparative study. Cureus. (2022) Nov 21;14(11): e31720.
34. Choong KA**.** Digital-first primary care: An ambivalent legacy of Covid-19? *Med Leg J.* (2024); Dec;92(4):201–205.