Examination of the Psychological Effects of The Covid-19 Pandemic on Medical Personnel Working in The Filiation Team: A Mixed Method Study

Muhammed ÖZKÖROĞLU[1], Hacer GÖK UĞUR[2]

Corresponding Author

Hacer GÖK UĞUR

DOI

https:// 10.48121/jihsam.1380087

Received

23.10.2023

Accepted

28.12.2023

Published Online

30.04.2024

Key Words

Covid-19, Pandemic, Filiation, Medical personnel, Psychological effects, Nursing

This study is a work produced from the thesis.

ABSTRACT

Objective: This study was conducted to determine the psychological effects of the Covid-19 pandemic on medical personnel working in the filiation team, and to examine the possible effects in depth.

Methods: The research was conducted using the exploratory sequential mixed pattern between February 2022 and February 2023 on the medical personnel working in the filiation team in a District Health Directorate. In the quantitative stage of the research, the population consisted of 248 medical personnel working in the filiation team, and the sample consisted of 181 participants who met the inclusion criteria and agreed to participate in the study. The quantitative data of the research were collected using the "Personal Information Form" and the "Impact of Event Scale", and the qualitative data were collected using the "Semi-Structured Interview Form".

Results: In the study, it was found that 30.4% of the medical personnel working during the filiation process were psychologically affected. In the in-depth interviews, it was determined that there were categories of fear, anxiety, loneliness, sleep problems, stigma, trauma, changes in affectivity, stress, deterioration in social relationships, fatigue and strain under the theme of psychological effects.

Conclusions: The study found that about a third of the medical personnel working in the filiation process were psychologically affected by the pandemic, and they experienced psychological effects such as fear, anxiety, loneliness, sleep problems, stigma, trauma, changes in affectivity, stress, deterioration in social relationships, fatigue and strain.

[1] RN, Fatsa State Hospital, Ordu.

Orcid Number: https://orcid.org/0000-0002-7494-5918

[2] Assoc. Prof., Ordu University, Faculty of Health Sciences, Department of Nursing, Ordu, hacer32@gmail.com

Orcid Number: https://orcid.org/0000-0002-0371-0556

1.INTRODUCTION

The Covid-19 pandemic has caused a significant public health crisis in the world and in Türkiye, and many people have lost their lives due to the disease (WHO, 2023). Since March 11, 2020, when the first case was detected in Türkiye, all institutions have started to provide coordinated services in the fight against Covid-19 (Erdem, 2020). A scientific committee has been established and Covid-19 guidelines have been prepared, which describe general information about the disease and the causes of transmission (Ministry of Health, 2023). In order to manage the pandemic, filiation studies have been planned and started to be implemented for the detection and contact tracing of cases (Çetin et al., 2021). The filiation team included medical personnel from different professions such as physicians, dentists, nurses, midwifes, technicians, dietitians, physiotherapists, social workers and psychologists (Ilgaz et al., 2022).

Filiation covers the identification of the source in infectious diseases, contact detection, follow-up of contacts, transmission of the disease and studies aimed at ensuring the management of the disease (Shi et al., 2021; Ministry of Health, 2023). Determining the source is important in filiation for the detection of carriers who can transmit the disease to more than one person (Önal & Kalaycı, 2021). Contact tracing, on the other hand, involves monitoring the individual who is the source of infection and those who have contact with these individuals for symptoms, and supporting individuals throughout this process (WHO, 2022).

Filiation studies conducted according to the methods and guidelines prepared by the Ministry of Health play an important role in on-site detection and isolation of patients by medical personnel, identification of contacts, and detection of carriers that can transmit the disease (Önal & Kalaycı, 2021; Ministry of Health, 2022). The filiation process started with individuals giving tests and included home visits made by filiation teams consisting of medical personnel of cases detected via mobile applications and phone according to the test result, as well as procedures such as taking tests, supplying medicines, seeing cases on site and informing about everything related to the process (Ministry of Health, 2022; Erdem et al., 2021). The medical personnel working in filiation have successfully carried out public health studies despite all the life risks. Healthcare workers experienced many physical, mental and social problems during this process (Parıldar, 2021).

They have encountered problems during this period due to reasons such as uncertainty of the disease process, heavy workload, intensive working conditions, lack of information and change of duty location (Al Sulais et al., 2020; Kaya, 2020; Öner, 2021). It is stated that medical personnel have experienced more physical problems at the beginning of the pandemic process; and it is stated that psychological effects come to the fore over time and will continue for years even when people return to their normal lives (Arıcı Özcan, 2019). It is reported that psychological problems are experienced more often than physical problems after events such as the pandemic, which have a traumatic effect, lasting for many years. During the Covid-19 pandemic, medical personnel were more psychologically affected by direct exposure to the pandemic than other occupational groups (Kaya, 2020). It is stated that healthcare workers experience psychological problems such as fear of getting sick and transmitting the disease, anxiety, worry, distress, stress, depression, burnout, restlessness, helplessness, sadness, anger, sleep problems, loneliness, post-traumatic stress disorder, suicidal ideation, feeling under pressure and stigma during the pandemic process (Alsubaie et al., 2019; Bohlken et al., 2020; Saladino et al., 2020).

When the literature is examined, it is seen that the studies that examine in depth the state of medical personnel affected by the pandemic, particularly those working in the filiation process, are quite inadequate. Determining how medical personnel working during the filiation process are psychologically affected by this process through in-depth examination using quantitative and supportive qualitative methods is very important in terms of evaluating the mental health effects, in addition to measures to be taken and intervention studies to be planned. Interventions to be made to protect mental health of medical personnel, who are in constant contact with patients and who are at high risk of contracting the disease, through evaluating the psychological effects are important in terms of the quality and adequacy of the healthcare provided (Pala & Metintaş, 2020). This study was conducted to determine the psychological effects of the Covid-19 pandemic on the medical personnel working in the filiation team and to examine the possible effects in depth.

Research Questions

1. What are the psychological effects of the pandemic process on the medical personnel working in the filiation team?

2. Do the socio-demographic characteristics of the medical personnel working in the filiation team affect their psychological state?

3. What are the opinions of the medical personnel working in the filiation team on the psychological effects of the pandemic?

2. MATERIALS AND METHOD

Type and Pattern of the Research

This research employed an explanatory sequential mixed pattern, which is one of the mixed methods.

Time and Place of the Research

The research was conducted between February 15, 2022 and February 15, 2023 on the medical personnel working in the filiation team in a District Health Directorate.

Quantitative Stage of the Research Population and Sample

In the quantitative stage of the research, 248 medical personnel working in a filiation team in a District Health Directorate during the Covid-19 pandemic constituted the population. For the sample size, sample size calculation was performed in OpenEpi Version 3 program. The sample size was determined as 181 people in the statistical power of 80% and confidence interval of 99%. Since the medical personnel, who were members of different professions, worked in the filiation process, stratified proportional sampling method was used to determine the psychological effects in different occupational groups. 181 people, determined as the sample size, were divided into layers according to their occupations and the occupational groups were studied according to the proportional calculation results.

Criteria for inclusion in the research: Medical personnel who worked in the filiation team during the pandemic, were open to communication and cooperation and agreed to participate in the research were included.

Exclusion criteria from research: Medical personnel who worked during the filiation process yet resigned due to various reasons, such as retirement, were excluded from the research.

Determination of the Participants in the Qualitative Stage of the Research

In the research, the participants of the qualitative stage were determined using the maximum diversity sampling method, one of the purposeful sampling methods, from the medical personnel in the filiation team participating in the quantitative stage. In this context, since the medical personnel working in the filiation process were from different occupational groups, the qualitative stage of the research was conducted on a total of 9 medical personnel, including 1 from each occupational group in terms of equal representation. The medical personnel who participated in the quantitative stage of the research, worked actively in the filiation team, received the highest score in each occupational group on the Impact of Event Scale, were open to communication and cooperation, and agreed to participate in the research were included in the research. Those who did not consent for voice recording were excluded from the research.

Research Variables

Dependent variable: The mean score of the Impact of Event Scale

Independent variable: Socio-demographic characteristics of medical personnel.

Data Collection Tools

The quantitative data of the research were collected using the “Personal Information Form” and the “Impact of Event Scale”.

Personal Information Form

The "Personal Information Form" was created by the researcher in accordance with the literature (Bayramoğlu, 2022; Elagöz, 2022; Yılmaz & Karakuş, 2022). This form consists of 17 questions and includes the socio-demographic characteristics of medical personnel.

The Impact of Event Scale

The scale developed by Weiss and Marmar (1997), was adapted to Turkish by Çorapçıoğlu et al. (2006). The scale measures the subjective stress levels of individuals exposed to traumatic life events. It consists of 22 items and each item is evaluated as (0) never, (1) rarely, (2) occasionally, (3) frequently and (4) very frequently in the 5-point likert type. Respondents obtain a score between 0 and 88 from the scale, and a high score indicates that the person has a high level of post-traumatic stress disorder. The scale consists of three subscales: hyperarousal, avoidance and intrusion. The Intrusion subscale includes items 1, 2, 3, 6, 9, 14, 16 and 20, the Avoidance subscale includes items 5, 7, 8, 11, 12, 13, 17, and 22, and the Hyperarousal subscale includes items 4, 10, 15, 18, 19, and 21. It has been found that the diagnostic performance is good between the cut values of 24 and 33. Cronbach's alpha coefficient of the scale was found to be 0.94 (Weiss & Marmar, 1997). In this research, Cronbach's alpha coefficient was 0.92.”

Qualitative Data Collection Tool

The “Semi-Structured Interview Form” prepared by the researcher was used in the collection of qualitative data of the research. In order to ensure the validity of the semi-structured interview questions prepared, the opinions of field experts were taken and whether the interview questions were prepared in accordance with the purpose of the research was evaluated in terms of content validity. In the content validity, 5 expert opinions were taken, including 3 field experts (2 specialists in Public Health Nursing and 1 specialist in Psychiatric Nursing), 1 methodologist and 1 language specialist, and the Content Validity Index (CVI) was

calculated as 0.95. A pilot interview was conducted using prepared interview questions with a healthcare professional working in the filiation team outside the study group. As a result of the analysis of this interview, the final version of the interview form was created.

Validity of Qualitative Data Collection Tool

Validity in qualitative research, by its most general definition, is that the data collection tools used in a research can accurately measure the variables to be measured. According to Guba (1981), it is necessary to ensure reliability (trustworthiness) first in order to ensure validity in qualitative research. In this context, it is stated that the criteria of (1) credibility, (2) transferability, (3) dependability, and (4) confirmability should be met to ensure reliability in qualitative research. In this research, the following actions were taken to meet the criteria listed above; the researcher took an active role in the whole implementation process, the research data were collected using the semi-structured interview technique and semi-structured interview questions were prepared by experts in the field. Qualitative research questions were checked by an expert and a language specialist. The interview was recorded on audio with the permission of the participants. The opinions of the participants were confirmed and written. In the analysis process of the data, necessary evaluations were made by the responsible researcher and it was tried to ensure consistency between the data. While the findings were being presented, direct citations were made for remarkable data.

Data Collection

Collection of Quantitative Data

The quantitative data of the study were collected by the researcher through face-to-face interviews from medical personnel at their workplace. For quantitative data, the “Personal Information Form” and the “Impact of Event Scale” were applied to the medical personnel, lasting between 15 to 20 minutes.

Collection of Qualitative Data

The qualitative data of the research were collected lasting between 40 to 50 minutes with the participants selected from the quantitative data in their institutions, in environments suitable for qualitative data collection. During the interviews, a quiet and calm environment was provided to ensure that participants could be comfortable. The “Semi-Structured Interview Method” was used when collecting qualitative data. The experienced researcher acted as a mentor during the interview conducted with two participants. The interview was continued to the point where the individual used the same concepts and no new information and concepts were obtained. The sessions were recorded with a voice recorder.

Ethical Considerations

Permission to use the scale was obtained via email. Institutional permission was obtained from the Ministry of Health and the Provincial Health Directorate, and Ethics Committee approval was obtained from the Clinical Research Ethics Committee (Decision No: 2021/256). The purpose and benefits of the study were explained to those who agreed to participate, and their written and verbal consents were obtained. Participation in the semi-structured interview was based on volunteerism, and it was stated from the beginning that participants would be allowed to withdraw from the research. No questions were asked about the attitudes and behaviors of the participants that would cause discomfort. In the study, code names were used instead of the real names of the participants.

Data Analysis

Analysis of Quantitative Data

The quantitative data of the research were analyzed using the IBM SPSS V23 program. The conformity of the data to normal distribution was examined using Kolmogorov-Smirnov test and Shapiro-Wilk test. Descriptive statistics, independent sample t-test, Mann Whitney U-test, one-way analysis of variance, Duncan test, Kruskall Wallis H test, Spearman's rho correlation coefficient, Pearson chi-square test, Yates correction test, Fisher's exact test and linear regression model were used in the evaluation of the data. The significance level was set at $p<0.05$.

Analysis of Qualitative Data

In the analysis of qualitative data, the interviews with the medical personnel were first transferred to the computer environment as an audio file. Then, these audio recordings were listened to and transcribed into a 142-page written document. After the interview with the first participant, the data analysis was started. Content analysis technique was used in the analysis of qualitative data. In order to encode the data in the research, all the interview data were read repeatedly and encoded taking into account the purpose of the research. During the encoding process, all the opinions that were considered to answer the research question were combined under the same code. The data were coded by both the researcher and the consultant for encoder reliability. The codes were then compared. In order to calculate the reliability between encoders, the Reliability = (Consensus) / (Agreement) + (Disagreement) formula was used. In the research, the same codes were evaluated as consensus and different codes were evaluated as disagreement. In this context, the reliability between the encoders was found to be 100%.

3. RESULTS

Quantitative Findings of the Research

The average age of the medical personnel was 37.75 ± 9.51 (Min:20; Max:62), the average working year was 13.7 ± 10.22 (Min:1; Max:39), and the average working month in filiation was 8.25 ± 7.35 (Min:1; Max:24). It was determined that 55.8% of the medical personnel were female, 72.4% were married, 51.9% were bachelor's graduates, 93.9% had a nuclear family, 21.5% were technicians and 74% had changed institutions during the filiation process. It was found that 19.3% had a chronic disease, while 7.2% had a psychiatric illness and were taking psychiatric medication. In addition, 37.6% had Covid-19, 38.1% were quarantined due to contact tracing, 51.9% had family members infected with Covid-19, and family members of 5.52% and relatives or friends of 43.1% passed due to Covid-19. It was found that 30.4% of medical personnel were affected by the event (Table 1). A very weak and statistically significantly positive correlation was found between the working year of the medical personnel and the score of the "Intrusion Subscale" of the scale (r=0.172; p=0.021). A statistically significant difference was found between the mean "Intrusion Subscale" scores according to gender (p=0.017). While the mean score of females was 10.72 ± 6.39, males obtained a mean score of 8.5±5.82. A statistically significant difference was found between the median values of the "Intrusion Subscale" according to the status of having a relative or friend passed due to Covid-19 (p=0.029). The median of those whose relatives or friends passed due to Covid-19 was 11, while the median of those who did not was 9. There was no statistically significant difference between the median values of the "Intrusion Subscale" according to other socio-demographic characteristics of the medical personnel (p>0.05) (Table 1).

A very weak and statistically significantly positive relationship was found between the age of the medical personnel and the "Avoidance Subscale" score (r=0.165; p=0.026). Increased age was associated with increased level of avoidance. A statistically significant difference was found between the mean values of the "Avoidance Subscale" according to the family type (p=0.004). The mean score of those living in a nuclear family was 11.86 ± 5.49, while those living with an extended family had a mean score of 6.91 ± 4.87. A statistically significant difference was found between the mean values of the "Avoidance Subscale" according to occupations (p=0.006). This finding was associated with the difference between psychologists and drivers and nurses, midwives, physicians, psychologists, dentists, social workers, technicians and others. The highest avoidance mean score was 13.30 ± 5.81 in the other occupational group, while the lowest mean score was 7.31 ± 3.79, obtained by psychologists. A statistically significant difference was found between the median values of the "Avoidance Subscale" according to the status of changing the institution during the filiation process (p=0.018). During the filiation process, the median of those who changed institutions was 11, while the median of those who did not change institutions was 13. There was no statistically significant difference between the mean values of "Avoidance" scores of the medical personnel according to other socio-demographic characteristics (p>0.05) (Table 1).

A statistically significant difference was found between the median values of the "Hyperarousal Subscale" according to gender (p=0.004). The median score of the "Hyperarousal Subscale" in females was obtained as 8, while it was 5 in males. A statistically significant difference was found between the median values of the "Hyperarousal Subscale" according to presence of chronic disease (p=0.012). The median hyperarousal score of those with chronic diseases was 9, while the median arousal score of those without was 6. There was no statistically significant difference between the mean values of the "Hyperarousal Subscale" score according to other socio-demographic characteristics of the medical personnel (p>0.05) (Table 1).

A very weak and statistically significantly positive relationship was found between the working year of the medical personnel and the overall "Impact of Event Scale" score (r=0.178; p=0.016). It was found that as the working year increased, the impact of the Covid-19 pandemic increased. A statistically significant difference was found between the overall mean scores of the "Impact of Event Scale" according to gender (p=0.006). The overall mean score of females was 28.56±14.46, while the overall mean score of males was 22.75±13.23. A statistically significant difference was found between the overall mean values of the "Impact of Event Scale" according to the family type (p=0.033). The overall mean score of those with a nuclear family was 26.56± 14.20, while those with an extended family had an overall mean score of 17.18±11.21. A statistically significant difference was found between the overall mean scores of the "Impact of Event Scale" according to presence of chronic disease (p=0.036).

The overall mean score of those with chronic disease was 30.51±15.68, while the overall mean score of those without was 24.91±13.65. A statistically significant difference was found between the overall mean scores of the "Impact of Event Scale" according to having relatives or friends passed due to Covid-19 (p=0.037). The overall mean score of those who had relatives or friends passed due to Covid-19 was 28.51±13.22, while the overall mean score of those who did not was

24.09±14.67. There was no statistically significant difference between the mean scores of the "Impact of Event Scale" according to other socio-demographic characteristics of the medical personnel (p>0.05)(Table 1).

Table 1. Comparison of Socio-Demographic Characteristics of Medical Personnel with the Impact of Event Scale and Mean Subscale Scores

Introductory Characteristics	Arithmetic Mean ± S.D (Min-Max)		Intrusion	Avoidance	Hyperarousal	The Impact of Event Scale
			Test/p	Test/p	Test/p	Test/p
Age	37.75 ± 9.51(20-62)		0.101/0.175[e]	0.165/**0.026**[e]	0.069/0.359[e]	0.108/0.149[e]
Working Year	13.7 ± 10.22(1-39)		0.172/**0.021**[e]	0.190/**0.010**[e]	0.143/0.054[e]	0.178/**0.016**[e]
Duration of Experience in Filiation Team (Month)	8.25 ± 7.35(1-24)		0.122/0.101[e]	0.061/0.416[e]	0.145/0.051[e]	0.105/0.159[e]
Gender	n	%				
Female	101	55.8	2.417/**0.017**[a]	1.828/0.069[a]	3029.5/**0.004**[c]	2.788/**0.006**[a]
Male	80	44.2				
Marital Status						
Married	131	72.4	2972.5/0.336[c]	0.622/0.534[a]	2834.5/0.161[c]	1.251/0.214[a]
Single	50	27.6				
Educational Status						
High school	33	18.2	1.140/0.335[b]	0.601/0.615[b]	3.485/0.323[d]	0.963/0.412[b]
Associate degree	30	16.6				
Bachelor's degree	94	51.9				
Postgraduate degree	24	13.3				
Family Type						
Nuclear Family	170	93.9	696.5/0.156[c]	2.914/**0.004**[a]	683.5/0.134[c]	2.146/**0.033**[a]
Extended Family	11	6.1				
Occupation						
Nurse	27	14.9	10.783/0.214[d]	2.795/**0.006**[b]	11.905/0.156[d]	14.176/0.077[d]
Midwife	15	8.3				
Physician	7	3.9				
Psychologist	13	7.2				
Driver	15	8.3				
Dentist	19	10.5				
Social Worker	16	8.8				
Technician	39	21.5				
Other	30	16.6				
Introductory Characteristics			Intrusion	Avoidance	Hyperarousal	The Imp. of Event Scale
Changing the Institution During the Filiation Process	n	%	Test/p	Test/p	Test/p	Test/p
Yes	134	74	3128.5/0.947[c]	2420.5/**0.018**[c]	2895.5/0.410[c]	-1.103/0.272[a]
No	47	26				
Presence of Chronic Diseases						
Yes	35	19.3	2046.0/0.067[c]	2172.0/0.168[c]	1860.0/**0.012**[c]	2.118/**0.036**[a]
No	146	80.7				
Presence of Psychiatric Illness						
Yes	13	7.2	1089.0/0.987[c]	835.5/0.158[c]	1018.0/0.683[c]	0.71/0.478[a]
No	168	92.8				
Taking Psychiatric Medication						
Yes	13	7.2	1089.0/0.987[c]	835.5/0.158[c]	1018.0/0.683[c]	0.71/0.478[a]
No	168	92.8				
Infected with Covid-19						
Yes	68	37.6	3788/0.874[c]	-0.328/0.743[a]	3696.5/0.669[c]	-0.028/0.977[a]
No	113	62.4				
Quarantined due to Contact Tracing						
Yes	69	38.1	-0.468/0.640[a]	-0.342/0.732[a]	3850/0.967[c]	-0.437/0.663[a]
No	112	61.9				
Family Member Infected with Covid-19						
Yes	94	51.9	0.105/0.619[a]	-0.652/0.515[a]	3992/0.782[c]	-0.266/0.790[a]
No	87	48.1				
Passed Family Member due to Covid-19						
Yes	10	5.5	811.5/0.787[c]	717/0.391[c]	851.5/0.983[c]	-0.295/0.772[a]

No	171	94.5				
Relatives and Friends Passed due to Covid-19						
Yes	78	43.1	3257.5/**0.029**[c]	3480/0.123[c]	3340/0.052[c]	2.097/**0.037**[a]
No	103	56.9				
Being Affected by the Event						
Affected	55	30.4				
Unaffected	126	69.6				
aTwo independent sample t-test, bOne-way analysis of variance, cThe Mann Whitney U test, dKruskall Wallis H test, eSpearman's rho correlation coefficient						

The established linear regression model was found to be statistically significant (F=4.294, p=0.006). In the linear regression model, the independent variables and the dependent variable were explained at a rate of 5.2%. As the working year increased, the intrusion score increased by 0.091 units (p=0.045). The independent variables affecting the "Avoidance Subscale" score of the scale were examined with linear regression analysis. The established linear regression model was found to be statistically significant (F=2.786, p=0.002). In the linear regression model, the independent variables and the dependent variable were explained at a rate of 10.6%. The avoidance score of psychologists was 5.456 lower than those who were from other professions (p=0.002). The avoidance score of drivers was 4.237 lower than those who were from other professions (p=0.024). The independent variables affecting the "Hyperarousal Subscale" score were examined with linear regression analysis. The established linear regression model was found to be statistically significant (F=8.125, p<0.001). In the linear regression model, the independent variables and the dependent variable were explained at a rate of 7.3%. Hyperarousal score of female participants was 2.143 higher than males (p=0.003). Those with chronic diseases had a 2.301 higher hyperarousal score than those without (p=0.011). The independent variables affecting the Impact of Event Scale were examined with linear regression analysis. The established linear regression model was found to be statistically significant (F=4.023, p=0.002). In the linear regression model, the independent variables and the dependent variable were explained at a rate of 7.7%. However, the independent variables affecting the overall score were not found to be statistically significant (p>0.05) (Table 2).The average age of the medical personnel was 33±10.96 (Min:23; Max:54), and it was found that 77.8% of them were female, 44.4% were married, 44.4% were bachelor's graduates, and the average working year was 9.77±12.84 (Min:1; Max:39) (Table 3).

Table 2. Examination of the Factors Affecting the Impact of Event Scale and Subscale Scores with Linear Regression

Intrusion	β_0 (95% CI)	S. Error	β_1	t	p	r^1	r^2	VIF
Constant	6.95 (5.165- 8.735)	0.904		7.684	**<0.001**			
Gender (Reference: Male)	1.751 (-0.081- 3.583)	0.928	0.140	1.886	0.061	0.178	0.140	1.047
Working Year	0.091 (0.002- 0.179)	0.045	0.149	2.019	**0.045**	0.180	0.150	1.029
Relatives and Friends Passed due to Covid-19 (Reference: No)	1.329 (-0.513- 3.171)	0.934	0.106	1.424	0.156	0.153	0.106	1.052

F=4,294, p=0,006, R^2=0.068, Adjusted R^2=0,052, β_0: The non-standardized beta coefficient; S. Error: Standard Error; β_1: Standardized beta coefficient; r^1: Zero-order correlation; r^2: Partial correlation

Avoidance	β_0 (95% CI)	S. Error	β_1	t	p	r^1	r^2	VIF
Constant	11.607 (5.627- 17.587)	3.029		3.832	**<0.001**			
Age	-0.021 (-0.167- 0.126)	0.074	-0.035	-0.279	0.780	0.131	-0.022	3.235
Working Year	0.103 (-0.053- 0.259)	0.079	0.189	1.305	0.194	0.200	0.100	4.219
Family Type (Reference: Extended Family)	2.728 (-0.906- 6.362)	1.841	0.117	1.482	0.140	0.213	0.114	1.261
Occupation (Reference: Other)								
Nurse	-2.882 (-5.911- 0.147)	1.534	-0.185	-1.878	0.062	0.008	-0.143	1.948
Midwife	-2.599 (-6.247- 1.049)	1.848	-0.129	-1.406	0.161	0.060	-0.108	1.693
Physician	-0.428 (-4.958- 4.101)	2.294	-0.015	-0.187	0.852	0.062	-0.014	1.276
Psychologist	-5.456 (-8.952- -1.959)	1.771	-0.253	-3.081	**0.002**	-0.213	-0.231	1.364
Driver	-4.237 (-7.906- -0.568)	1.858	-0.210	-2.280	**0.024**	-0.225	-0.173	1.712
Dentist	-1.124 (-4.386- 2.138)	1.652	-0.062	-0.680	0.497	0.043	-0.052	1.673
Social Worker and Sociologist	-1.051 (-4.306- 2.205)	1.649	-0.054	-0.637	0.525	0.007	-0.049	1.429
Technician	-1.497 (-4.178- 1.184)	1.358	-0.111	-1.102	0.272	0.044	-0.085	2.033
The Institution Worked Before Filiation (Reference: No)	-1.758 (-3.902- 0.386)	1.086	-0.139	-1.618	0.107	-0.179	-0.124	1.479

F=2.786, p=0.002, R2=0.166, Adjusted R2=0.106, β0: The non-standardized beta coefficient; P. Error: Standard Error; β1: Standardized beta coefficient; r1: Zero-order correlation; r2: Partial correlation

Table 2. (Continued) Examination of the Factors Affecting the Impact of Event Scale with Linear Regression

Hyperarousal	β_0 (95% CI)	S. Error	β_1	t	p	r^1	r^2	VIF
Constant	4.785 (3.689- 5.881)	0.555		8.615	**<0.001**			
Gender (Reference: Male)	2.143 (0.734- 3.551)	0.714	0.216	3.002	**0.003**	0.223	0.220	1.002
Presence of Chronic Disease (Reference: No)	2.301 (0.53- 4.072)	0.898	0.184	2.564	**0.011**	0.193	0.189	1.002

F=8.125, p<0.001, R^2=0.084, Adjusted R^2=0.073, β_0: The non-standardized beta coefficient; S. Error: Standard Error; β_1: Standardized beta coefficient; r^1: Zero-order correlation; r^2: Partial correlation

The Impact of Event Scale	β_0 (95% CI)	S. Error	β_1	t	p	r^1	r^2	VIF
Constant	13.273 (4.825- 21.721)	4.280		3.101	**0.002**			
Gender (Reference: Male)	4.096 (-0.1- 8.291)	2.126	0.144	1.926	0.056	0.204	0.144	1.086
Family Type (Reference: Extended Family)	6.52 (-2.082- 15.122)	4.359	0.110	1.496	0.136	0.158	0.112	1.056
Working Year	0.164 (-0.047- 0.376)	0.107	0.118	1.537	0.126	0.198	0.115	1.160
Presence of Chronic Disease (Reference: No)	3.65 (-1.706- 9.007)	2.714	0.102	1.345	0.180	0.156	0.101	1.119
Relatives and Friends Passed due to Covid-19 (Reference: No)	3.138 (-1.014- 7.291)	2.104	0.110	1.492	0.138	0.155	0.112	1.057

F=4.023, p=0.002, R^2=0.103, Adjusted R^2=0.077, β_0: The non-standardized beta coefficient; S. Error: Standard Error; β_1: Standardized beta coefficient; r^1: Zero-order correlation; r^2: Partial correlation

Table 3. Introductory Characteristics of Medical Personnel

Medical Personnel	**Age**	**Working Year**	**Gender**	**Marital Status**	**Educational Status**	**Occupation**
P1	29	3	Female	Single	Bachelor's degree	Dentist
P2	43	23	Female	Married	Bachelor's degree	Midwife
P3	27	3	Female	Single	Bachelor's degree	Physiotherapist
P4	24	1	Female	Single	Bachelor's degree	Physician
P5	54	39	Female	Married	Master's degree	Nurse
P6	33	7	Male	Married	Master's degree	Psychologist
P7	26	2	Female	Single	Master's degree	Social Worker
P8	45	7	Male	Married	High school	Driver
P9	23	3	Female	Single	Associate degree	Forensic Technician
Avg.±S.D(Min-Max)	33±10.96 (23-54)	9.77±12.84 (1-39)				

Qualitative Findings of the Research

Medical personnel working during the filiation process stated that they had experienced psychological effects such as fear, anxiety, loneliness, sleep problems, stigma, trauma, changes in affectivity, stress, deterioration in social relationships, fatigue and strain. They also mentioned that they had fear due to being sick during the filiation process, transmitting the disease, the presence of chronic diseases, uncertainty, touching somewhere in public areas and the death of their relatives (P1, P2, P3, P4, P5, P6, P7, P8, P9). They said they experienced anxiety related to being sick, transmitting the disease, uncertainty, using public transportation, crowded environment, sneezing/coughing, and media (P1, P2, P3, P4, P5, P6, P7, P8, P9). It was reported that they felt loneliness due to the fear of getting sick (P1, P4) and that they experienced sleep problems related to work intensity and fatigue (P1, P2, P4, P5, P6, P9). They said they were subjected to stigma as medical personnel and due to using personal protective equipment (P5, P6, P8), and experienced trauma due to encountering a situation outside of the standards (P2). They stated that they had changes in affectivity due to bumpy emotions and a sense of restriction (P4, P5, P9), and that they experienced stress due to work intensity and personal protective equipment (P8, P9). They shared that their social relations deteriorated due to fear of disease (P1, P5, P8), and that they had fatigue due to work intensity and transportation (P3, P4, P7, P8). They mentioned difficulties in transportation, home visits, phone communication, address finding, quarantine, meeting basic needs and using personal protective equipment during the filiation process (P1, P2, P3, P6, P7, P8, P9) (Figure 1).

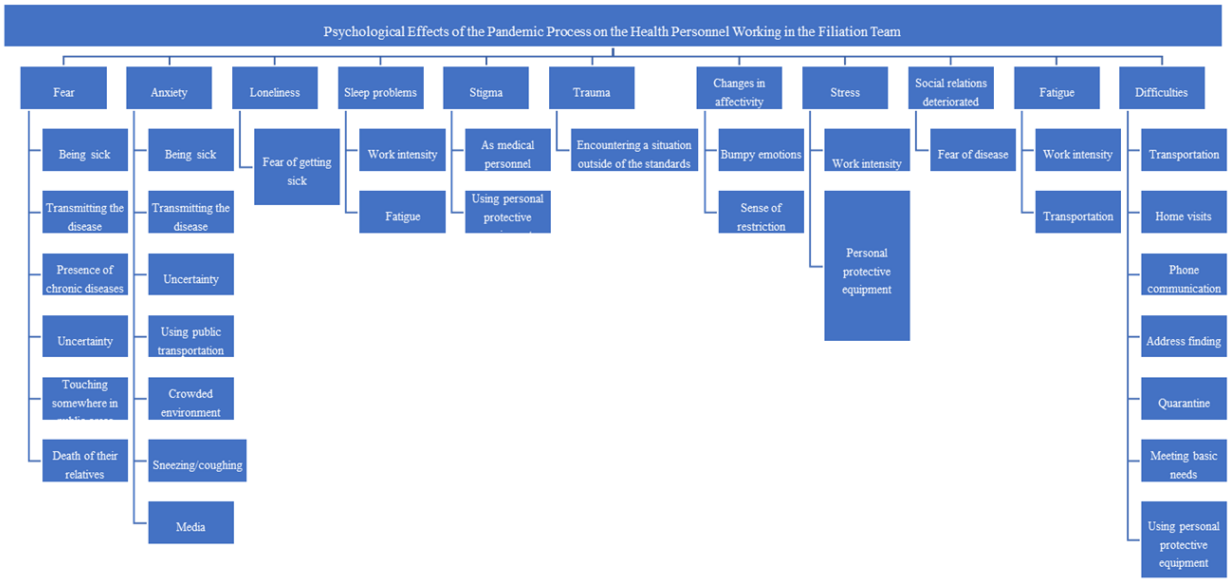

Figure 1. Psychological Effects of the Pandemic on Medical Personnel Working in the Filiation Team

Table 4. Examples of Statements of Medical Personnel

Theme	Category	Statements of Medical Personnel
Psychological Effects	Fear	*"...Uncertainties led to fear. Like, will I not be able to see the future? How long are we going to go like this, how long is it going to take, so I'm constantly thinking about tomorrow, so what will happen, will it end or not? Will they find a cure? Like, I don't know, will they find a vaccine...?" (P9)*
	Anxiety	*"...I started to experience mild anxiety like panic attacks. Because I might infect my family. Since they have other diseases, the thought of transmitting the disease caused me constant anxiety..." (P1)*
	Loneliness	*"...You can be lonely with the instinct to protect yourself from disease. Socially, you can already feel lonely because it affects you negatively..." (P4)*
	Sleep Problems	*"...There were times when we couldn't sleep because we were tired. We experienced sleep problems especially during periods when we were working in a very busy, stressful manner and cases were intense. Like not being able to sleep soundly, waking up often, not sleeping much..." (P6)*
	Stigma	*"...When you go to a citizen's door wearing overalls in filiation, you are being stigmatized overtly..." (P6)*
	Trauma	*"...I think it caused trauma. Because everyone lost somebody, different things they had been through. It was not an occasional thing that we had in our lives. It was something that completely affected the world..." (P2)*
	Changes in Affectivity	*"...It tired our feelings in general. We experienced many emotions at the same time..." (P4)*
	Stress	*"...Intensive work brought a great amount of stress...We were constantly working under stress..." (P9)*

	Deterioration in Social Relationships	*"...When the pandemic occurred, we stopped visiting our friends and relatives, whom we used to see, out of fear of disease..." (P8)*
	Tiredness	*"...There were times when we were tired... We went everywhere from village to city to neighborhoods...It was very exhausting..." (P8)*
	Strain	*"...It's hard to be constantly on the move..." (P1)*
		"...When we went to the houses, we saw very different reactions, some people thought we were scammers or something...Those who chased us saying they were about to report us to the police... it was challenging" (P1)
		"...For example, someone pulled a gun on a friend saying they were not contacted... Most of them rejected.... That put a lot of pressure on us..." (P2)
		"...Not being able to take a break... we had a hard time..." (P9)
		"...I think it was extremely difficult to wear personal protective equipment...(P9).
		"...When I went up stairs with a mask, N95, helmet, overalls, and overshoes on my feet. I had difficulty breathing, there were times when I said I think I'll stop breathing..." (P2)

4. DISCUSSION

The findings of the study conducted in order to determine the psychological effects of the Covid-19 pandemic on medical personnel working in the filiation team and to examine the possible effects in depth were discussed in this stage in accordance with the literature.

It was found that 30.4% of medical personnel were psychologically affected by the event. In the study, it was determined that the "Intrusion" subscale was affected by gender, working year, and the status of having relatives and friends passed due to Covid-19. In the linear regression analysis, it was found that the intrusion score increased by 0.091 units as the working year increased. It was found that the "avoidance" subscale was affected by family type, age, working year, profession and the situation of changing institutions during the filiation process. In linear regression analysis, the avoidance score of psychologists was 5.456 lower than those from other professions, and the avoidance score of drivers was 4.237 lower than those from other professions. It was determined that the "Hyperarousal" subscale was affected by gender and the presence of chronic diseases. In the linear regression analysis, female participants obtained a hyperarousal score 2.143 higher than males. Those with chronic diseases had a 2.301 higher hyperarousal score than those without. It was found that the overall score of the "Impact of Event Scale" was affected by gender, family type, presence of chronic diseases, working year and status of having relatives or friends passed due to Covid-19. In a study conducted on healthcare workers by Yilmaz and Karakuş (2022), it was determined that educational status, working 48 hours a week and above, exposure to verbal or physical violence affected the "Impact of Event Scale" and all its subscales. In a study conducted by Bayramoğlu (2022), on people who had Covid-19 found that gender, BMI and presence of chronic disease were effective in the "Intrusion" subscale; BMI and gender, were effective in the "Avoidance" subscale; gender, BMI, previous psychiatric diagnosis and presence of chronic disease were effective in the "Hyperarousal" subscale; and gender, BMI and presence of chronic disease were effective in the overall "Impact of Event Scale" score. In a study conducted by Elagöz (2022), on people who had Covid-19, it was found that the 'Intrusion' subscale was affected by gender, age, marital status and continuation of symptoms of Covid-19; the "Avoidance" subscale was affected by educational status, having a psychiatric diagnosis, receiving psychiatric treatment and continuation of symptoms of Covid-19; the "Hyperarousal" subscale was affected by

gender, marital status, educational status, chronic illness and continuation of symptoms of Covid-19; and the overall "Impact of Event Scale" score was affected by gender, marital status, educational status and continuation of symptoms of Covid-19. In a study conducted by Öner (2021), to determine the impact of the Covid-19 pandemic on medical personnel found that the "Intrusion" subscale was affected by the status of being in need for psychological support, the "Avoidance" subscale was affected by the status of being in need for psychological support, the "Hyperarousal" subscale was affected by the status of being in need for psychological support, and the overall "Impact of Event Scale" score as affected by the status of being in need for psychological support. Our research findings showed consistency with the literature.

In in-depth interviews conducted in the qualitative stage of the study; it was determined that medical personnel experienced fear during the filiation process. When the literature was examined, it was seen that medical personnel experienced fear and their mental health was adversely affected during the Covid-19 pandemic (Khattak et al., 2021). In a study conducted by Mohsin et al. (2021), with medical personnel in the Covid-19 pandemic, it was found that 10.7% experienced mild, 73.5% moderate and 15.7% high levels of fear. Kumar et al. (2020), and Sevimli and Sevimli (2021), found in their study that healthcare workers experienced fear due to getting sick during the pandemic, transmitting the disease to family members, uncertainty of the disease process and the presence of chronic diseases. In our research, similar to the literature, it was observed that medical personnel working in the filiation process experienced fear due to being sick, transmitting the disease, the presence of chronic diseases, uncertainty, touching somewhere in public areas and the death of their relatives. In the study, it was determined that they also experienced anxiety during the filiation process. This finding was also supported by previous studies reporting that healthcare workers experienced anxiety during Covid-19 (Alnazly et al., 2021; Akova et al., 2022; Aymerich et al., 2022). Alenazi et al. (2020), reported that 32.3% of medical personnel experienced high-level, 36.1% moderate and 31.5% low-level anxiety in the Covid-19 pandemic, and Martsenkovskyi et al. (2022), found that 55.4% of medical personnel experienced moderate and high-severity anxiety during the Covid-19 pandemic. Şahin and Kulakaç (2022), determined that medical personnel experienced anxiety due to reasons such as transmitting the disease to their family and surroundings, changing working hours, fear of death, loneliness, anger, hopelessness, uncertainty, the presence of chronic diseases and working with Covid-19 patients. In our research, it was observed that medical personnel experienced anxiety related to being sick, transmitting the disease, uncertainty, using public transportation, crowded environment, sneezing/coughing and media during the filiation process. In the study, it was also determined that medical personnel working during the filiation process experienced loneliness. When the studies conducted on medical personnel during the Covid-19 pandemic were examined; Stubbs and Achat (2022), found that they had less contact with family and friends and lived alone, and Cabello et al. (2022), stated that they experienced feelings of loneliness due to the risk of illness, being in quarantine, exposure to news about the disease, and uncertainty of the disease process. In our research, it was observed that medical personnel working in the filiation process experienced loneliness more often due to fear of disease.

In the study, it was determined that the medical personnel working during the filiation process also experienced sleep problems. When the literature was examined, it was reported that medical personnel working during the Covid-19 pandemic experienced sleep problems (Aymerich et al., 2022). However, Şahin et al. (2020), reported that healthcare workers providing care for those with psychiatric illness experienced more sleep problems, while Alboghdadly et al. (2022), reported the healthcare workers providing care for Covid-19 patients. In our research, it was observed that medical personnel working in the filiation process experienced sleep problems due to work intensity and fatigue. It was determined that they were also exposed to stigma. Bagcchi (2020), found that healthcare workers were stigmatized by society due to infectious diseases during the Covid-19 pandemic, Mostafa et al. (2020), reported that 31.2% of physicians were exposed to pandemic-induced stigma, and Al Sulais et al. (2020), indicated that 31% of physicians stated that they were worried about being stigmatized due to being a medical personnel. In addition, in a study by Taylor et al. (2020), conducted on society during the Covid-19 pandemic, it was determined that about a quarter of the public thought that medical personnel should be isolated from society and their families, and more than a third of the participants stayed away from medical personnel due to fear of disease transmission. In our research, it was seen that medical personnel working during the filiation process were exposed to stigma due to the risk of transmitting the disease. In the study, it was determined that the medical personnel working during the filiation process experienced trauma. Similarly, during the pandemic process, Aymerich et al. (2022), found that 32% of medical personnel and Martsenkovskyi et al. (2022), found that 20% of medical personnel experienced trauma. In our research, it was seen that the events outside of standards occurred during the pandemic caused trauma to medical personnel. In the study, it was determined that the medical personnel working during the filiation process experienced changes in affectivity. In a study conducted with

medical personnel during the Covid-19 pandemic, Lin et al. (2021), found that 13.35% of medical personnel experienced mood disorders, and Amra et al. (2021), determined that mood disorders were experienced by medical personnel who showed symptoms of Covid-19 disease and those who worked directly with Covid-19 patients. In our research, it was observed that medical personnel working during the filiation process experienced changes in affectivity due to bumpy emotions and a sense of restriction. In the study, it was determined that medical personnel working during the filiation process experienced stress. When the studies conducted on healthcare workers working during the pandemic were examined; Aymerich et al. (2022), found that 40% experienced acute stress symptoms, while Alnazly et al. (2021), reported that 35%, Martsenkovskyi et al. (2022), reported that 42.4%, and Akova et al. (2022), reported that 15.4% experienced serious stress symptoms. In our research, it was observed that medical personnel working during the filiation process experienced stress due to work intensity and the use of personal protective equipment. It was determined that they experienced a deterioration in their social relationships. According to Sethi et al. (2020), in a study conducted with medical personnel during the Covid-19 pandemic, it was determined that the social lives of medical personnel were restricted due to the pandemic, they could not attend funerals and other social gatherings, and their social lives changed. Martsenkovskyi et al. (2022), on the other hand, stated that the social support of healthcare workers decreased during the Covid-19 pandemic, and which was an important risk factor for mental illnesses. In our research, it was observed that the medical personnel working during the filiation process experienced deterioration in their social relationships due to fear of disease. In the study, medical personnel working during the filiation process stated that they experienced fatigue. When the literature was examined found that the fatigue levels of healthcare workers increased during the pandemic (Kurtaran et al., 2022). In addition, Yeager et al. (2023), stated that the workload of healthcare workers increased during the pandemic. In our research, it was observed that medical personnel experienced fatigue due to both work intensity and transportation during the filiation process. In the study, health personnel stated that they experienced difficulties in transportation, home visits, phone communication, address finding, quarantine, meeting basic needs and using personal protective equipment during the filiation process. When the literature was examined; in studies conducted on medical personnel working during the filiation process, it was stated that they experienced difficulties in transportation during the filiation process, patient and contact tracing during home visits, during and after phone calls, finding addresses, quarantining patients and contacts, meeting basic requirements such as nutrition and excretion, and using personal protective equipment (Sevimli & Sevimli, 2021; Beyoğlu et al., 2022; Kaya, 2022; Ilgaz et al., 2022; Yeager et al., 2023). Our research findings showed similarities with the literature.

5. CONCLUSION

In the study, it was found that about a third of the medical personnel working in the filiation process were psychologically affected by the Covid-19 pandemic. In in-depth interviews, it was determined that medical personnel experienced psychological effects such as fear, anxiety, loneliness, sleep problems, stigma, trauma, changes in affectivity, stress, deterioration in social relationships, fatigue and strain. In accordance with these results, it is recommended to provide psychological support to the medical personnel worked during the filiation process during the pandemic, as well as particularly empowering in terms of transportation, home visits, telephone communication, address finding, quarantine, meeting their basic needs during this process and the difficulties they experience in using personal protective equipment.

Acknowledgments: We thank the people who participated in the research.
Conflict of Interest: The authors declare that they have no conflict of interest.
Ethical Approval: Ethics Committee approval was obtained from the Ordu University Clinical Research Ethics Committee (Decision No: 2021/256).
Funding: This study was not financially supported.

REFERENCES

Akova, İ., Kiliç, E., & Özdemir, M.E. (2022). Prevalence of burnout, depression, anxiety, stress, and hopelessness among healthcare workers in COVID-19 pandemic in Turkey. Inquiry, 59:1-11. https://doi.org/10.1177/00469580221079684

Al Sulais, E., Mosli M., & Al Ameel, T. (2020). The psychological impact of COVID-19 pandemic on physicians in Saudi Arabia: A cross-sectional study. Saudi J Gastroenterol, 26 (5):249-255. https://doi:10.4103/sjg.SJG_174_20

Alboghdadly, A., Saadh, M.J., Kharshid, A.M., Shaalan, M.S., & Alshawwa, S.Z. (2022). Assessment of anxiety level and sleep quality of medical staff treating patients with COVID-19. Eur Rev Med Pharmacol Sci, 26(1):312-319. https://doi: 10.26355/eurrev_202201_27783

Alenazi, T.H., BinDhim, N.F., & Alenazi, M.H. (2020). Prevalence and predictors of anxiety among healthcare workers in Saudi Arabia during the COVID-19 pandemic. J Infect Public Health, 13(11):1645-1651. https:// doi: 10.1016/j.jiph.2020.09.001

Alnazly, E., Khraisat, O.M., Al-Bashaireh, A.M., & Bryant, C.L. (2021). Anxiety, depression, stress, fear and social support during COVID-19 pandemic among Jordanian healthcare workers. PLoS One, 16(3):1-22. https:// doi: 10.1371/journal.pone.0247679

Alsubaie, S., Temsah, M.H., & Eyadhy, A.A.A. (2019). Middle East Respiratory Syndrome Coronavirus epidemic impact on healthcare workers' risk perceptions, work and personal lives. Journal Infect Dev Ctries, 13(10):920-926. https:// doi: 10.3855/jidc.11753

Amra, B., Salmasi, M., & Soltaninejad, F. (2021). Healthcare workers' sleep and mood disturbances during COVID-19 outbreak in an Iranian referral center. Sleep Breath, 25(4):2197-2204. https:// doi: 10.1007/s11325-021-02312-4

Arıcı Özcan, N. (2019). The predictive role of posttraumatic stress and self compassion on posttraumatic growth. OPUS International Journal of Society Researches, 14(20):621-642. https:// doi: 10.26466/opus.594006

Aymerich, C., Pedruzo, B., & Pérez, J.L. (2022). COVID-19 pandemic effects on health worker's mental health: Systematic review and meta-analysis. Eur Psychiatry, 65 (1):1-10. https:// doi: 10.1192/j.eurpsy.2022.1

Bagcchi, S. (2020). Stigma during the COVID-19 pandemic. Lancet Infect Dis, 20(7):782. https:// doi: 10.1016/S1473-3099(20)30498-9

Bayramoğlu, N. (2022). Investigation of the relationship between clinical symptoms and neuropsychological symptoms in individuals with COVID-19. Disseration, Ankara University of Health Sciences.

Beyoğlu, M., Erdoğan, A., & Kaya, E. (2022). Exposure to violence, psychological resilience and burnout in filiation workers in the COVID-19 Pandemic. Gevher Nesibe Journal of Medical and Health Sciences, 7(21):160-167. https://doi.org/10.5281/zenodo.7392821

Bohlken, J., Schömig, F., Lemke, M.R., Pumberger, M., & Riedel Heller, S.G. (2020). COVID-19 pandemic: Stress experience of healthcare workers. Psychiatr Prax, 47(4):190-197. https:// doi: 10.1055/a-1159-5551

Cabello, M., Izquierdo, A., & Leal, I. (2022). Loneliness and not living alone is what impacted on the healthcare professional's mental health during the COVID-19 outbreak in Spain. Health Soc Care Community, 30(3):968-975. https:// doi: 10.1111/hsc.13260

Çetin, B., Deniz, D., Gemlik, H.N., & Yarar, O. (2021). The effect of Coronavirus (COVID-19) on health workers: A qualitative research. JAPSS, (1):45-58. https:// doi: 10.1007/s12630-022-02377-z

Çorapçıoğlu, A., Yargıç, İ., Geyran, P., & Kocabaşoğlu, N. (2006). Validity and Reliability of Turkish Version of "Impact of Event Scale-Revised" (IES-R). New Symposium Journal, 44(1):14-22.

Elagöz, T. (2022). Evaluation of post-traumatic stress disorder in patients aged 40-80 years old with COVID-19 registered with family health centers. Disseration, Manisa Celal Bayar University.

Erdem, B., Demir Yıldırım, A., Erdem, F., Yılmaz Esencan, T., & Uyar, N. (2021). Organizational structure of İstanbul Kadıköy district health directorate in Covid-19 pandemic struggle. TJFMPC, 15(1):170-178. https:// doi:10.21763/tjfmpc.760179

Erdem, İ. (2020). Quarantine and precaution policies of Turkey against coronavirus (COVID-19). Turkish Studies, 15(4):377-388. http://dx.doi.org/10.7827/TurkishStudies.43703

Guba, E.G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. ECTJ, 29 (2):75-91.

Ilgaz, A., Dağıstan Akgöz, A., Aslan, T., & Gözüm, S. (2022). Experiences of workers in primary care filiation teams during the COVID-19 pandemic. Journal of Public Health Nursing, 4(2):175-189. https:// doi:10.54061/jphn.1116038

Kaya, B. (2020). Effects of pandemic on mental health. J Clin Psy, 23(2):123-124. https:// doi: 10.5505/kpd.2020.64325

Kaya, E. (2022). Social psychological approach to COVID-19 pandemic: A mixed method study. Disseration. Bolu Abant Izzet Baysal University.

Khattak, S.R., Saeed, I., Rehman, S.U., & Fayaz, M. (2021). Impact of fear of Covid-19 pandemic on the mental health of nurses in Pakistan. Journal of Loss and Trauma, 26(5):421-435. https://doi.org/10.1080/15325024.2020.1814580

Kumar, J., Katto, M.S., & Siddiqui, A.A. (2020). Predictive factors associated with fear faced by healthcare workers during COVID-19 pandemic: A questionnaire-based study. Cureu, 12(8):1-5. https://doi: 10.7759/cureus.9741

Kurtaran, N.E.K., Mehmet Gündüz, S.Ş., & Öztürk, L. (2022). Healthcare workers' musculoskeletal disorders, sleep quality, stress, and fatigue during the COVID-19 pandemic. Pam Med J, 15(3):1-11. https://dx.doi.org/10.31362/patd.1011863

Lin, Y.Y., Pan, Y.A., & Hsieh, Y.L. (2021). COVID-19 pandemic is associated with an adverse impact on burnout and mood disorder in healthcare professionals. Int J Environ Res Public Health, 18(7):3654. https://doi: 10.3390/ijerph18073654.

Martsenkovskyi, D., Babych, V., Martsenkovska, I., Napryeyenko, O., Napryeyenko, N., & Martsenkovsky, I. (2022). Depression, anxiety, stress and trauma-related symptoms and their association with perceived social support in medical professionals during the COVID-19 pandemic in Ukraine. Postep Psychiatr Neurol, 31(1):6-14. https://doi.org/10.5114/ppn.2022.114657

Ministry of Health, 2022. COVID-19 (SARS-CoV-2 Infection) contact tracing, outbreak management, home patient monitoring and filiation. Accessed November 11, 2022. https://covid19.saglik.gov.tr/Eklenti/41623/0/covid-19rehberitemaslitakibievdehastaizlemivefilyasyon-021021pdf.pdf

Ministry of Health, 2023. COVID-19 Guide. Accessed February 15, 2023. https://covid19.saglik.gov.tr/TR-66301/covid-19-rehberi.html/

Mohsin, S.F., Agwan, M.A., Shaikh, S., Alsuwaydani, Z.A., & AlSuwaydani, S.A. (2021). COVID-19: Fear and anxiety among healthcare workers in Saudi Arabia. A cross-sectional study. Inquiry, 58:1-8. https://doi: 10.1177/00469580211025225

Mostafa, A., Sabry, W., & Mostafa, N.S. (2020). COVID-19-related stigmatization among a sample of Egyptian healthcare workers. PLoS One, 15(12):1-15. https://doi.org/10.1371/journal.pone.0244172

Önal, Ö., & Kalaycı, Ö. (2021). COVID-19 pandemic in Turkey; filiation, surveillance and contact tracking. Med J SDU, 1(special issue):241-244. https://doi.org/10.17343/sdutfd.901804

Öner, H. (2021). COVID-19 Evaluation of the relationship of trauma, stress, anxiety, depressive symptoms created by the covid-19 pandemic on healthcare professionals and society and childhood trauma. Disseration. İstanbul Sabahattin Zaim University.

Pala, S.Ç., & Metintaş, S. (2020). Healthcare professionals in the COVID-19 pandemic. ESTUDAM Public Health Journal, 5(COVID-19 special issue):156-168. https://doi.org/10.35232/estudamhsd.789806

Parıldar, H. (2021). The nameless warriors of filiation. Turkish Journal of Family Practice, 25(1):34-36. https://doi: 10.5222/tahd.2021.43531

Şahin, C.U., & Kulakaç, N. (2022). Exploring anxiety levels in healthcare workers during COVID-19 pandemic: Turkey sample. Curr Psychol, 41(2):1057-1064. https://doi: 10.1007/s12144-021-01730-7

Şahin, M.K., Aker, S., Şahin, G., & Karabekiroğlu, A. (2020). Prevalence of depression, anxiety, distress and insomnia and

related factors in healthcare workers during COVID-19 pandemic in Turkey. J Community Health, 45:1168–1177. https://doi: 10.1007/s10900-020-00921-w

Saladino, V., Algeri, D., & Auriemma, V. (2020). The psychological and social impact of COVID-19: New perspectives of well-being. Front Psychol, 11: 1-6. https://doi: 10.3389/fpsyg.2020.577684

Sethi, B.A., Sethi, A., Ali, S., & Aamir, H.S. (2020). Impact of Coronavirus disease (COVID-19) pandemic on health professionals. Pak J Med Sci, 36(COVID19-S4):6-11. https://doi: 10.12669/pjms.36.COVID19-S4.2779

Sevimli, S., & Sevimli, B.S. (2021). Challenges and ethical issues related to COVID-19 contact tracing teams in Turkey. J Multidiscip Healthc, 14:3151-3159. https://doi: 10.2147/JMDH.S327302

Shi, Q., Hu, Y., & Peng, B. (2021). Effective control of SARS-CoV-2 transmission in Wanzhou, China. Nat Med, 27(1):86-93. https://doi: 10.1038/s41591-020-01178-5

Stubbs, J.M., & Achat, H.M. (2022). Are healthcare workers particularly vulnerable to loneliness? The role of social relationships and mental well-being during the COVID-19 pandemic. Psychiat Res Commun, 2(2):1-8. https://doi: 10.1016/j.psycom.2022.100050

Taylor, S., Landry, C.A., Rachor, G.S., Paluszek, M.M., & Asmundson, G.J.G. (2020). Fear and avoidance of healthcare workers: An important, underrecognized form of stigmatization during the COVID-19 pandemic. J Anxiety Disord, 75:1-5. https://doi: 10.1016/j.janxdis.2020.102289

Weiss, D.S., Marmar, C.R. (1997). The Impact of Event Scale-Revised. In: Wilson JP, Keane TM. Assessing psychological trauma and PTSD. Newyork: The Guilford Press, 399–411.

WHO, 2022. Coronavirus disease (COVID-19) outbreak: Rights, roles and responsibilities of health workers, including key considerations for occupational safety and health. Accessed December 07, 2022. https://apps.who.int/iris/bitstream/handle/10665/331510/WHO-2019-nCov-HCWadvice-2020.2-eng.pdf

WHO, 2023. WHO Coronavirus (COVID-19) Dashboard. Accessed March 13, 2023. https://covid19.who.int/

Yeager, V.A., Madsen, E.R., & Schaffer, K. (2023). Qualitative insights from governmental public health employees about experiences serving during the COVID-19 pandemic, Public Health Workforce Interests and Needs Survey. J Public Health Manag and Pract, 29(1):73-86. https://doi: 10.1097/PHH.0000000000001644

Yılmaz, F.K., & Karakuş, S. (2022). Post-traumatic stress, work performance and employee satisfaction among health care workers during the COVID-19 pandemic. PJMHS, 16 (5):887-887. https://doi.org/10.53350/pjmhs22165887