

## Psychosocial Dimension of Healthcare Professionals Vaccine Resistance: A Qualitative Study the Case of Turkey

Sağlık Çalışanlarının Aşıya Direncinin Psikososyal Boyutu: Türkiye Örneği Nitel Bir Çalışma

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### ABSTRACT

The purpose of the present study was to examine the reasons for the vaccine resistance of healthcare employees, which may affect public health adversely during the COVID-19 pandemic, and to contribute to the solutions which can be developed. The phenomenological research design, which is a qualitative research design, was used in the study. This qualitative study was conducted with 35 healthcare professionals. Interviews were conducted with the WhatsApp. The data were analyzed by using Colaizzi's Phenomenological Analysis Method. Two categories, five main themes, and eighteen sub-themes were created in the analysis of the data. There was the theme of psychological effects, physical effects, and social effects in the impact of COVID-19 on the healthcare employee category. There were the themes of lack of trust and risk in the category of reasons for not vaccinating healthcare employees. It was found in the present study that healthcare employees were adversely affected psychologically, physically, and socially during the COVID-19 pandemic. A total of 26 healthcare Employees declared that they did not trust the vaccine and did not have it because of the risks, and 9 healthcare employees declared that they had the vaccine because they trusted it. Although the healthcare professionals working in the Southeastern Anatolia and Eastern Anatolia Regions had vaccine rejection in Turkey, healthcare professionals working in the Aegean Region and the Mediterranean Region were those who had the least vaccine rejection.

**Keywords:** Healthcare Employees, COVID-19, Vaccine resistance

### ÖZ

Bu çalışmanın amacı, COVID-19 pandemisi sırasında halk sağlığını olumsuz yönde etkileyebilecek sağlık çalışanlarında aşı direncinin nedenlerini incelemek ve geliştirilebilecek çözümlere katkıda bulunmaktır. Araştırmada nitel bir araştırma deseni olan fenomenolojik araştırma deseni kullanılmıştır. Araştırma 35 sağlık profesyoneli ile yürütülmüştür. Katılımcılar ile WhatsApp programı ile görüşmeler yapılarak elde edilen veriler Colaizzi'nin Fenomenolojik analiz yöntemi kullanılarak analiz edilmiştir. Verilerin analizinde iki kategori, beş ana tema ve on sekiz alt tema oluşturulmuştur. Sağlık çalışanları kategorisinde COVID-19'un psikolojik etkileri, fiziksel etkileri ve sosyal etkileri temaları, sağlık çalışanlarının aşı yaptırmama nedenleri kategorisinde güven eksikliği ve risk temaları yer almıştır. Bu çalışmada sağlık çalışanlarının COVID-19 pandemisi sürecinde psikolojik, fiziksel ve sosyal olarak olumsuz etkilendiği tespit edilmiştir. Katılımcılardan 26'sının aşıya güvenmediği ve riskleri nedeniyle aşı yaptırmadığı, 9'unun ise aşıya güvendiği için aşı yaptırdığı belirlendi. Türkiye'de Güneydoğu Anadolu ve Doğu Anadolu Bölgelerinde görev yapan sağlık çalışanları aşı reddi yaşarken, Ege Bölgesi ve Akdeniz Bölgesi'nde görev yapan sağlık çalışanları en az aşı reddi yaşayanlar olmuştur.

**Anahtar Kelimeler:** Sağlık çalışanları, COVID-19, Aşı direnci

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## INTRODUCTION

COVID-19 is an acute respiratory disease caused by the virus, which was first named “Novel Coronavirus 2019-nCoV”<sup>1</sup>.

Vaccines have proven to be an extremely effective tool to deal with epidemics from the past to our present day. Vaccination programs aim to prevent the infectious diseases that can be prevented with vaccines, thus also preventing deaths or permanent sequelae caused by these diseases<sup>2-5</sup>. The vaccination was carried out with appointments in family healthcare centers and in hospitals in Turkey in the beginning; however, nowadays, tents have been set up for vaccination to make vaccination faster and reach all segments of the society. In this way, every individual whose turn comes in entitled to have the vaccine without an appointment<sup>6,7</sup>.

Vaccine resistance, which is caused by anti-vaccine or insecurity, is an important public healthcare issue threatening the global health<sup>8</sup>. The discourses that have no scientific basis, such as diseases are caused by vaccines instead of vaccine-preventable diseases, are mentioned in our present day without considering public healthcare and these words are spread through the media<sup>9</sup>.

The discourses about vaccine opposition, vaccine hesitancy, or vaccine resistance began to spread right after the announcement of the COVID-19 pandemic by the World Health Organization (WHO)<sup>10-12</sup>.

Especially the importance of vaccination in the fight against pandemics, which affect public health and leave serious traces, can be understood with the struggle of countries for COVID-19 vaccines. The present study was planned to deeply examine the reasons for the vaccine resistance of healthcare employees, which may affect public health negatively during the COVID-19 pandemic, and to contribute to the solutions which can be developed. The purpose of the present study was to examine the reasons for the vaccine resistance of healthcare employees, which may affect public health adversely during the COVID-19 pandemic, and to contribute to the solutions which can be developed. This article, the healthcare professionals, who set an example for the society in vaccination, which is the most powerful weapon in the hands of humanity in the COVID-19 pandemic, were examined in depth.

## MATERIAL AND METHOD

### Procedures and Participants

The Phenomenological Study Design, which is a qualitative research design, was employed to deeply examine the reasons why healthcare employees showed resistance to vaccines. This design was chosen as it provides high-degree freedom to describe a novel phenomenon (i.e. an event or an experience) from the perspective of participants, provides enriched data and details experiences<sup>13</sup>.

The Snowball Sampling Method was used in the selection of the participants in this study. In the context of the Snowball Sampling Method, the researchers, who were also nurses and academicians for more than five years, determined the participant group in two different simultaneous processes.

Firstly, the researchers contacted their nurse friends, whom they knew were working in various regions of Turkey, on the phone, and asked for help to contact other nurses. On the other hand, the researchers also contacted their former students, whom they graduated and were in contact with, on the phone, and asked for their help to contact their own nursing friends. As a result, the participant group of the study was created based on volunteerism.

The study population consisted of healthcare employees working in different cities in 7 regions of Turkey. The sampling size was determined to be at least 5 people from each region, and a total of 35 participants were interviewed in this respect.

## Data collection tools

The questions (age, gender, and occupation) and semi-structured interview form were created as the data collection tools, which included the sociodemographic data of the participants. Semi-structured interviews allow us to obtain detailed data in the relevant field<sup>14</sup>. The reasons said by healthcare employees for not vaccinating were examined in a detailed manner by asking 4 open-ended questions that were developed by the researchers by taking expert opinions from 5 lecturers in public health, surgery, and psychiatry fields.

## Collection of the data

The data were collected by the researchers between 01.06.2021 and 15.07.2021. Semi-structured interviews were conducted individually with the WhatsApp because of the pandemic. The purpose and process of the study were explained in advance after contacting each potential participant on the phone. After permission was obtained from the participants who agreed to participate in the study, and after they filled the Voluntary Informed Consent Forms, the Interview Forms were sent to them with the WhatsApp. The data obtained from the participants as written text were delivered to the researchers.

## Ethics approval and consent to participate

The present study was approved by the Scientific Research and Publication Ethics

Committee of University (Date: 14 April 2021, Number: 2021/3-E-95674917-108.99-17455). The Informed Consent Forms were obtained from the participants before the interviews started. The transcripts of the recordings were stored on a password-protected device. Each step of the study was written by using the Qualitative Research Reporting Consolidated Criteria (COREQ) used in reporting qualitative studies<sup>15</sup>.

## Statistical analysis

The 7-Stage Analysis Method, which was developed by Colaizzi (1978) for phenomenological studies, was used in the analysis of the qualitative data obtained from the interviews<sup>16</sup>. In this context, firstly, the interview texts were read independently and repeatedly by three researchers. In this way, the purpose was to understand what was explained in the data. The important statements were selected, rearranged, and expressed in general terms in the interview texts. Then, the data in the expressions were determined and analyzed. The researchers formulated and confirmed the meanings by arguing until they reached a consensus; and they also determined and organized the themes into main and sub-themes, which were developed with clear expression. Also, the statements of the participants were included to enable the reader to verify the interpretation and analysis of the data.

## RESULTS AND DISCUSSION

A total of 11 of the healthcare employees who participated in the present study were male, 25 women and the mean age was  $33.0 \pm 7.79$  (min 21, max 49). Twelve of the participants were single, and 20 were nurses. A total of 26 healthcare employees declared that they did not trust the vaccine and did not have it because of the risks, and 9 healthcare employees declared that they had the vaccine because they trusted it. Although healthcare professionals working in the Southeastern Anatolia and Eastern Anatolia Regions were the most involved in vaccine rejection in Turkey, those working in the Aegean Region and the Mediterranean Region were those

who were the least involved in vaccine rejection.

Two categories, five main themes, and eighteen sub-themes were created with the interviews. The themes and sub-themes regarding the effects of COVID-19 on healthcare Employees are given in Table 1 (Table 1).

### Theme 1. Spiritual Effects

As a result of the interviews conducted with the participants, the effects of COVID-19 on healthcare employees were divided into three themes as psychological effects, physical effects, and social effects. The

psychological effects of COVID-19 on healthcare employees were discussed under four sub-themes.

1.1. Difficulty/depression: Many participants said that they were depressed, and had difficult times during the COVID-19 pandemic:

*“It was a very difficult process psychologically, and I got depressed” (K1)*

1.2. Burnout: Some participants said that they experienced burnout during the COVID-19 pandemic:

*“As a healthcare employee, I think I am exhausted. Fear of infecting my family, fear of being sick, .....” (P2)*

1.3. Anxiety/Worry: Most participants said that they experienced intense anxiety during the COVID-19 pandemic:

*“It was a physically intense and stressful working environment, the fear of infection caused intense anxiety in us.” (P12)*

1.4. Reduced motivation: Many healthcare professionals reported reduced motivation during the COVID-19 pandemic:

*“As the pandemic proceeded, my spirit and motivation decreased, and my job performance gradually decreased.” (P17)*

## Theme 2. Physical Effects

It was determined in the interviews with the participants that the healthcare employees were also physically and negatively affected by the pandemic. Three sub-themes were determined in the physical effects theme.

2.1. Moving away from spouse and children: Many healthcare employees said that they had to stay away from their children and spouses during the COVID-19 pandemic:

*“I stayed away from my children and my spouse, I lived in another place to avoid that I would infect them, I stayed at the hotel reserved for us for a while....” (P18)*

2.2. Fatigue: All healthcare employees said that they were very tired during the pandemic process.

*“We are all very tired in this process.....” (K19).*

2.3. Reduced job performance: Many healthcare employees reported reduced work performance during the COVID-19 pandemic:

*“As the pandemic proceeded, my spirit and motivation decreased and my work performance gradually decreased.” (K17).*

**Table 1. The Themes and Sub-Themes Regarding the Effects of COVID-19 on Healthcare employees**

Theme	Sub-themes
<b>Psychological Effects</b>	Difficulty/depression
	Burnout
	Anxiety/Worry
<b>Physical Effects</b>	Reduced motivation
	Moving away from spouse and children
	Fatigue
<b>Social Effects</b>	Reduced job performance
	Moving away from the family for fear of infection
	Limiting social life
	Reduced quality of life
	Reduced interpersonal communication

## Theme 3. Social Effects

It was determined in the interviews conducted with the participants that the healthcare employees were affected negatively and socially by the pandemic. Four sub-themes were determined in the theme of social effects.

3.1. Moving away from the family for fear of infection: The participants said that they stayed away from their spouses, children, and family for the fear of infecting the disease, and they could hardly touch their children.

*“I was away from my family, I could not even love my child because of the fear that I could infect him... (P23)*

3.2. Limiting social life: The participants said that their social life was limited because of the pandemic, and this affected them negatively.

*“Our social life was limited, and the quarantine process affected us negatively..... (P26).*

3.3. Reduced quality of life: All participants said that their quality of life decreased during the pandemic process.

*“Our quality of life decreased, our motivation decreased in this process, what else can I say ..... (K26)*

3.4. Reduced interpersonal communication: The participants said that interpersonal communication decreased because of the pandemic and they could not see their friends.

*“In this process, I was separated from my friends, I could not see them, our communication decreased. (K27)*

The category for the reasons why the healthcare employee did not have the vaccine is given in Table 2. Two themes and seven sub-themes were identified in this respect.

### Theme 1. Lack of Trust

It was determined in the interviews with the participants that healthcare employees did not want to have the COVID-19 vaccine because they did not trust it. Five sub-themes were identified in the theme of lack of trust.

1.1 Lack of trust in vaccine content: Most of the participants said that they did not trust the content of the vaccine.

*“I do not trust the content of the vaccine, frankly, for this reason, I do not want to have it.” (K12)*

1.2 Thinking that it will not provide protection: Some of the participants said that the vaccine cannot provide protection.

*“I do not think the vaccine is protective.” (K32)*

1.3 Thinking that natural immunity will be more effective: Some participants said that it is more important to have natural immunity than to have the disease from the vaccine in the COVID-19 pandemic; and therefore, they did not want to be vaccinated.

*“I do not want to have the COVID-19 vaccine because I think natural immunity is more important. I have had the disease, and I think I have natural immunity.” (K14)*

1.4 Thinking that clinical studies on vaccines are inadequate: Most of the participants said that they did not find the clinical studies conducted on COVID-19 vaccines sufficient.

*“I think the clinical studies conducted on the vaccine are not enough; therefore, I cannot trust it very much.” (K12)*

1.5 News of conspiracy theories on vaccination in the world: Some of the participants said that they did not want to be vaccinated as they heard the news and conspiracy theories on COVID-19 vaccines.

*“I hear a lot of news about the vaccine on social media, and in news programs and for this reason, I am scared....”. (K35)*

**Table 2. Themes and Sub-Themes of Healthcare Employees’ Reasons for Not Vaccination**

<b>Lack of trust</b>	Lack of trust in vaccine content
	Thinking that it will not provide protection
	Thinking that natural immunity will be more effective
	Thinking that clinical studies on vaccines are inadequate
	News of conspiracy theories on vaccination in the world
<b>Risk</b>	Fear of side effects (being infertile, allergic reactions, heart attack)
	Seeing sudden deaths after vaccine

## Theme 2. Risk

It was determined in the interviews with the participants that the healthcare employees did not want to have the COVID-19 vaccine because they thought there was a risk. Two sub-themes were determined in the risk theme.

2.1 Fear of side effects (being infertile, allergic reactions, heart attack): Many participants said that they did not want to have it because they were afraid of the side effects of COVID-19 vaccines.

*“Frankly, I hear a lot of side effects from the patients we vaccinated, from the relatives around, I heard an allergic reaction, I heard a heart attack, for this reason, I am afraid.....” (K3)*

2.2 Seeing sudden deaths after vaccine: Some participants said that they did not want to have it because they were afraid of sudden deaths after COVID-19 vaccinations.

*“I heard about sudden deaths after the vaccination, and I am afraid, I give up on having the vaccine.” (K6)*

According to a study conducted with Term 3 students of the Faculty of Medicine, it was found that most of the students thought of having the COVID-19 vaccine, and the rate of those who thought that the COVID-19 vaccine was safe was 40%; however, they also said that it could vary according to the type of the vaccine<sup>17</sup>. It was reported in a study conducted in the United Kingdom with over 30 thousand participants that 16% of participants had a high level of distrust in the COVID-19 vaccine<sup>18</sup>. In a study that was conducted in the USA, 45% of participants said that they had concerns about the contents of the vaccine<sup>19</sup>. It was determined

in our study that most of the healthcare professionals “do not want to be vaccinated because they do not trust the contents of the vaccine”.

Studies reported that the opinion that the effectiveness of the vaccine is low is common among those who reject them<sup>20,21</sup>. In a study that was conducted in Australia on the reasons for vaccine rejection, it was reported that 35.9% of midwives were suspicious about vaccine efficacy<sup>22</sup>. It was found in our study that some healthcare professionals did not believe that the vaccine would provide protection. However, it was determined based on these opinions that they did not resort to any scientific explanation but only said that they believed it was not useful.

According to the results of the study that was conducted by Lee et al. (2016), it was reported that parents who did not trust the government often went to alternative medicine providers and trusted the vaccine information they received from them, but did not trust the information on the vaccine provided by healthcare professionals<sup>23</sup>. In our study, some participants said that it was more important to provide natural immunity by having the disease than the vaccination in the COVID-19 pandemic; and therefore, they did not want to be vaccinated.

In our study, some participants said that they did not want to be vaccinated since they heard news and conspiracy theories about the COVID-19 vaccine. In a 24-national study conducted in 2018, Hornsey et al. reported that anti-vaccine participants also had conspiratorial worldviews<sup>24</sup>.

## CONCLUSION

The present study found that healthcare employees were affected negatively and psychologically, physically, and socially during the COVID-19 pandemic process. A total of 26 healthcare employees declared in the study that they did not trust the vaccine and did not have it because of the risks, and nine healthcare employees said that

they had the vaccine because they trusted it. Although the healthcare professionals working in the Southeastern Anatolia and Eastern Anatolia Regions were most involved in vaccine rejection in Turkey, those working in the Aegean Region and the Mediterranean Region were the least involved in vaccine rejection. It is

recommended to organize training programs for healthcare employees to eliminate the

questions about vaccine refusal in healthcare employees.

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