

RESEARCH ARTICLE

Erhan DAĞ*

Zeynep AYDIN KILINÇ**

İshak Suat ÖVEY***

Ali Osman UYMAZ****

AN OVERVIEW OF COVID 19 IN THE VIEW OF HEALTHCARE PROFESSIONALS/PROVIDERS IN TURKEY

The recent Covid-19 pandemic first appeared in China in the last months of 2019 and affected the whole world. The first Covid-19 case in our country was seen on March 11, 2020, and it spread throughout the country in a short time. Within this period, the Ministry of Health has actively struggled with healthcare personnel by determining extremely active measures and treatment methods. With the current study, it aimed to evaluate the perspective of healthcare personnel on the Covid-19 virus in the months when the cases increased. For this purpose, data were collected from physicians, dentists, midwives, nurses, health officers, medical technicians, laboratory technicians, paramedics, emergency medical technicians and other staff consisting of 1062 people working for the Ministry of Health in Turkey. In the data analysis process, SEM based on least squares regression was used in the study, and the analysis was conducted with Smart PLS 3.9 program. As a result of the study, the psychological, behavioural, risk perception and attitudes of the healthcare personnel towards Covid-19 were evaluated. They stated that healthcare professionals are at the risk of Covid-19, that they can infect themselves and infect their families despite taking protective measures, that they should cooperate with experts in the fight against the Covid-19 virus, and that citizens do not comply with protective measures in terms of transmission of the virus.

Keywords: Covid-19, Pandemic, Healthcare Professionals/Providers, Psychological State

**TÜRKİYE'DEKİ SAĞLIK
PROFESYONELLERİ/SAĞLAYICILARINA
KARŞI COVID 19'A GENEL BAKIŞ**

Son zamanlarda ortaya çıkan Covid-19 pandemisi ilk olarak 2019 yılının son aylarında Çin'de ortaya çıktı ve tüm dünyayı etkisi altına aldı. Ülkemizde ilk Covid-19 vakası 11 Mart 2020 tarihinde görülmüş ve kısa sürede ülke geneline yayılmıştır. Bu süre içerisinde Sağlık Bakanlığı son derece aktif tedbirler ve tedavi yöntemleri belirleyerek sağlık personeli ile aktif olarak mücadele etmiştir. Mevcut çalışma ile vakaların arttığı aylarda sağlık personelinin Covid-19 virüsüne bakış açısının değerlendirilmesi amaçlandı. Bu amaçla Türkiye'de Sağlık Bakanlığı'nda çalışan 1062 kişiden oluşan hekim, diş hekimi, ebe, hemşire, sağlık memuru, tıp teknisyeni, laboratuvar teknisyeni, sağlık görevlisi, acil tıp teknisyeni ve diğer personelden veri toplanmıştır. Veri analizi sürecinde, çalışmada en küçük kareler regresyonuna dayalı YEM kullanılmış ve analiz Smart PLS 3.9 programı ile gerçekleştirilmiştir. Çalışma sonucunda sağlık personelinin Covid-19'a yönelik psikolojik, davranışsal, risk algısı ve tutumları değerlendirilmiştir. Sağlık çalışanlarının Covid-19 riski altında olduğu, koruyucu önlemler almasına rağmen kendilerine ve ailelerine bulaştırabilecekleri, Covid-19 virüsü ile mücadelede uzmanlarla iş birliği yapmaları gerektiği, vatandaşların virüsün bulaşması açısından koruyucu önlemlere uymadığı saptanmıştır.

Anahtar Kelimeler: Covid-19, Pandemi, Sağlık Çalışanları, Psikolojik Durum

* Sorumlu Yazar, Öğr.Gör., Kütahya Sağlık Bilimleri Üniversitesi Gediz Sağlık Hizmetleri MYO. E-mail:erhan.dag@ksbu.edu.tr ORCID ID: 0000-0003-3474-1344

**Doktora Öğrencisi, Alanya Alaaddin Keybukat Üniversitesi Lisansüstü Eğitim Enstitüsü, Sağlık Turizmi Anabilimdalı
E-mail:dtzeynepaydinkilinc@gmail.com ORCID ID: 0000-0001-9140-0146

***PhD, Doç.Dr. Alanya Alaaddin Keybukat Üniversitesi Tıp Fakültesi Fizyoloji AD. E-mail:suat.ovey@alanya.edu.tr ORCID ID: 0000-0002-0392-4386

**** PhD, Dr.Öğretim üyesi, Alanya Alaaddin Keybukat Üniversitesi İktisadi ve İdari Bilimler Fakültesi E-mail: ali.uyamaz@alanya.edu.tr, ORCID ID: 0000-0002-2572-0085

Geliş tarihi: 24.10.2022, Kabul tarihi: 31.10.2022

1. INTRODUCTION

The term Epidemic (Pandemic) is used for the epidemic diseases that affect more than one continent and many countries around the world. According to the definition by the World Health Organization (WHO), in order for a disease to be a pandemic, the disease agent must be new, easily transmitted from animals to humans or between people and be continuous and seriously affect the vital functions of people.

Looking at the historical process of epidemic events affecting society from the past to the present, the oldest known pandemic occurred during the Morea War in 430 BC. Throughout human history, epidemics have affected many civilisations. Justinian Plague (541-750 AD), Black Death (1347-1351), Cholera (1817-1823), Smallpox (15th - 17th Centuries), Spanish Flu or H1N1 (1918-1919), Hong Kong Flu or H3N2 (1968-1970), HIV / AIDS (1981 - present), SARS (2002-2003), Swine Flu or H1N1 (2009-2010), Ebola (2014-2016) outbreaks are known as the most important outbreaks (Insider, 2020). The H1N1 influenza outbreak is the largest global epidemic of the 20th century. This epidemic, which took place between the years 1918-1919, manifested itself as three big waves. H1N1 influenza outbreak that began in April also affected Turkey, where the first wave spread rapidly, was mild and survived without many complications. It spread to European countries and came to an end in August. The second wave started violently in early October and spread to America, Africa, Asia and Europe and followed a very slow and fatal course (1). In the 2000s, the world encountered the SARS epidemic that emerged from the Corona family in 2002. One of the flu viruses, avian influenza, which was a Pandemic threat in 2005, was also seen in Turkey, and important information on the outbreak in these cases of avian influenza (H5N1) has been obtained (2). The H1N1 pandemic, experienced by the entire world in 2009 and 2010, was the first example of pandemic influenza preparations initiated in the 2000s. In 2012, with the emergence of the coronavirus as Mers-Cov and the high mortality rate in affected cases, countries were informed about how the Coronavirus could affect the world (3).

The last epidemic, which affected the world, started in December 2019 in Wuhan, the capital of the Hubei region of China. Upon the occurrence of pneumonia that develops without an identifiable reason and does not respond to treatment and vaccines, it was understood that the disease called SARS-CoV-2 was caused by a new coronavirus, and the disease turned into an epidemic. It has spread to Europe, North America, Asia-Pacific countries and the whole world. The epidemic was declared as a "pandemic" on 11th March 2020. As of 13th March 2020, the epicentre of the coronavirus

epidemic changed to Europe (4). By 05/07/2020, the number of cases of the coronavirus epidemic in the world was 11,586,780, the number of deaths was 537,372, and the number of patients recovered was recorded as 6,553,127. Looking at Turkey, the total number of cases was 205,758, the number of deaths was 5,225, and the number of patients recovering was 180,680. The total number of tests performed in Turkey in this process was 3,630,480 (5).

Turkey, from the moment the outbreak was detected, has been well organised in crisis management. Instead of the denial policy that caused crises to occur and progress, the necessary measures were started in the early period, that is, before the first case was seen. Evidence of this attitude is that Turkey set up the Science Committee and Operations Centre 31 days before the World Health Organization declared the pandemic virus. Before the first case was seen, Turkey took all necessary measures and measures in a timely manner to prevent mortality. It has determined 14 rules to be followed to protect against the virus and was published in the media as a public spotlight before the first case was seen. In the news channels, the public was informed by programs that took place with the participation of the members of the Scientific Council. Turkey has prevented the increase in mortality thanks to the measures it has taken since the outbreak was first seen in China and the decisions made by the Scientific Council (6). Epidemic management attempts to suppress existing infectious diseases in order to protect community health. In light of this applied science, it is a process that makes use of the branches of science that are the basis of microbiology and epidemiology sciences. In this process, it is aimed to control the epidemic by taking into account the sociological and cultural structure of society (7). In addition, the fight against the covid-19 epidemic was carried out with the dedicated, diligent and intensive work of doctors, nurses and other medical team members who work in all medical institutions related to healthcare services and organisations, especially the Ministry of health. According to TURKSTAT (*Turkish Statistical Institute*) data, the number of health workers in Turkey in 2018; 153,128 physicians, 30,615 dentists, 190,499 nurses, 177,409 other healthcare personnel, 56,351 midwives, 32,032 pharmacists, 376,367 other staff and service area is known as 1,016,401 personnel. In addition, the total number of inpatient and outpatient health institutions is 34,559, and there are a total of 231,913 beds. In Turkey, there are 24071 intensive care beds for adults and 1625 intensive care beds for children, and 12402 beds for newborns. The total number of all of them reaches 8098 (8). As in Turkey, healthcare workers around the world continue to work uninterruptedly with high performance. For this reason, it has been observed that healthcare workers are under intense stress due to working overtime. In the studies carried out, healthcare professionals were found to

be under intense stress in SARS and MERS viruses seen in the past (9,10). One of the biggest problems of health workers is that they are worried about contracting the virus in the work environment and infecting their families. For this reason, health workers have isolated themselves from their families due to the risk of transmission (11). It has been reported that health workers should be protected against this virus, especially with protective clothing and equipment, in order to minimise the transmission rate in the provision of Health Services (12). Especially in China, the first starting point of Covid-19, due to the unknown effect of the virus early on, 95% of the infected healthcare workers were found to be in Hubei province. After it was realised that Covid-19 is a deadly virus, healthcare workers started to use protective equipment more carefully (13). In the literature, the possibility of transmission of the disease to humans by wild animals is emphasized (31). Serious measures have been taken since the first case was seen in Turkey, and as the rate of disease spread increased, the measures were increased (32). Measures taken; Mandatory mask use, quarantine, curfew, travel restriction practices were used to fight the disease. From the first day of Covid 19 to February 2022, 506 healthcare workers died in Turkey. 34% of the deceased are physicians, 13.4% are pharmacists, and 7.3% are midwives and nurses(33).

It has been determined that awareness of epidemic diseases and taking personal and social measures against the spread of the epidemic are important and effective in minimising the negative effects of the disease (14).

The aim of this research is to evaluate the psychological perceptions, behavioral patterns and risk perceptions of the personnel serving as health workers in Turkey against the Covid 19 disease. In epidemics, health workers are responsible for protecting the health of the public by taking a series of precautions. For this reason, it was desired to evaluate the view of health workers who serve in terms of public health to covid 19 disease.

Infectious diseases can spread between continents by affecting public health (34). The behavior of the people is very important in the spread of the disease. Taking the necessary measures to protect from the disease, social distance, hygiene, etc. Following these rules will prevent the spread of the disease. It is important that healthcare personnel struggling with infectious diseases also use the necessary knowledge, skills and protective equipment in combating the disease. Infectious diseases seen from history to the present are seen as serious problems that threaten public health. The study examines the importance of infectious diseases and the status of health workers who are struggling with it.

2. METHODS

2.1. Research Population and Sampling

Ethics committee approval, dated 5 June 2020 and numbered 19-33, was obtained from Alanya Alaaddin Keykubat University for this research. The research universe consists of staff that live in Turkey and work in the Turkish Ministry of Health. In our study, it was asked to examine the view of health workers on Covid-19 since there are personnel of the Ministry of Health in the field of combat with Covid-19. Since measures such as travel bans and social distance measures are applied in Turkey, the data of the study can only be obtained using digital tools, and the data of the study was obtained using a survey created from the Google search engine. Convenience sampling was used to collect data, as it was not possible for researchers to identify participants digitally. This sampling method was chosen in terms of easier, cost-effective and fast data collection. This sampling method was chosen in terms of easier, cost-effective and fast data collection (15). The survey was created and shared on a web-based site and was closed on 13 June 2020 considering that the data was sufficient. In order to represent Turkey, the study was delivered to 7 regions in Turkey (Mediterranean Region, Eastern Anatolia Region, Aegean Region, South-Eastern Anatolia Region, Central Anatolia Region, Black Sea Region, Marmara Region) and reached at least 100 participants from each region. In this process, a total of 1062 participants were reached, and it was considered to be sufficient for the study to be carried out.

2.2. Data Collection Tools

The data of the study consists of 7 demographic questions directed to healthcare professionals and 5-point Likert-type questions belonging to 26 Covid-19 pandemics. Demographic information includes information on gender, age, profession, working year in the profession, region of employment, chronic illness and smoking. Covid-19 questions consist of questions about the risk of transmission, preventive measures are taken, the place of occurrence of the virus, and the covid-19 vaccine.

2.2.1. Results

H₁ There is a significant relationship between the risk perception arising from one's own behaviour and the expected outcome of COVID-19.

H_{1a} Personal hygiene mediates the relationship between the risk perception arising from one's own behaviour and the expected outcome of COVID-19.

H₂ There is a significant relationship between the risk perception arising from public behaviour and the expected outcome of COVID-19.

H_{2a} Personal hygiene mediates the relationship between the risk perception arising from public behaviour and the expected outcome of COVID-19.

H₃ There is a significant relationship between the risk perception arising from organisational behaviour and the expected outcome of COVID-19.

H_{3a} Personal hygiene mediates the relationship between the risk perception arising from organisational behaviour and the expected outcome of COVID-19.

2.2.2.Participants And Procedure

Data was collected from 985 employees working in the health sector through an online survey.

Descriptive Statistics of The Sample

Gender	Female	632
	Male	353
Age	18-29	167
	30-39	336
	40-49	386
	50+	96
Occupation	Doctor	324
	Dentist	134
	Nurse	360
	Technician	50
	Paramedic	31
	Other	86
Tenure (year)	0-5	153
	6-10	160
	11-19	299
	20-29	304
	30+	69
Region	Mediterranean	279
	East Anatolia	101
	Aegean	102
	Southeast Anatolia	119
	Central Anatolia	116
	Black Sea	137
	Marmara	131
Do you Smoke?	Yes	219
	No	766
Do you have any Chronic Diseases?	Yes	219
	No	766
Do you think Covid-19 is produced in the laboratory?	Yes	302
	No	465
	No Idea	218
Do you think the rate of spread of the virus will slow within 2-3 months?	Yes	289
	No	466
	No Idea	203
Will you get the COVID-19 vaccine?	Yes	664
	No	321

2.2.3.Measures

The perception of risk and the worries about COVID-19 were measured with the perception of risk and the worries about COVID-19 infection Scale developed by Simione and Gnagnarella (2020).

A 5-point Likert-type scale was used to assess the items of servant leadership (1= never; 5= very frequently) and of the other scales (1= strongly disagree; 5= strongly agree).

2.2.4.Evaluation of the Measurement Model

In the data analysis process, SEM based on least squares regression was used in the study, and the analysis was conducted with Smart PLS 3.9 program.

2.2.5.Evaluation of The Scales

Validity and reliability analyses of the scales were conducted according to the following steps and criteria. Firstly, to analyse the indicator reliability, the loadings of the items should be higher than 0.7. Multicollinearity must be examined by inspecting the *Variance Inflation Factor (VIF)* values. VIF values are recommended to be lower than 5 (16).

Table 1. Inner Model Loadings and Collinearity Statistics (VIF)

Items	Loadings	VIF Values	Cronbach's Alpha	CR	AVE
Result of COVID-19			0.798	0.830	0.719
Are you worried about the possibility of contracting COVID-19, serious complications, or death?	0.771	1.494			
Are you worried that your family or loved ones may have serious complications or die in the event of COVID-19 infection?	0.797	1.452			
Do you think, although you have taken your protection measures, you are still worried about COVID-19 transmission?	0.792	1.245			
Personal Hygiene			0.735	0.839	0.718
Do you think you have taken adequate precautions against COVID-19?	0.660	1.149			
Do you think you pay attention to personal precautions such as washing your hands frequently, avoiding physical contact, disinfecting surfaces, and maintaining social distance with people?	0.594	1.112			
Do you think your profession is respected and	0.665	1.120			

reliable in the process of combating COVID-19?

Public Behaviour			0.734	0.874	0.712
Do you think it would be appropriate to punish more seriously the behaviours that put public health at risk?	0.640	1.225			
Do you think containment measures need to be developed to prevent the spread of COVID-19?	0.783	1.451			
Do you think the community is acting in accordance with the COVID-19 pandemic?	0.662	1.303			
Do you think the perception of COVID-19 risk in public is less than it should be?	0.638	1.100			
Organisational Behaviour			0.727	0.830	0.750
Do you think your institution has taken adequate precautions against COVID-19?	0.742	1.329			
Do you think virologists and other doctors should be in more communication in the institution that is you work for?	0.655	1.121			
Do you think the institution you are working with provides the equipment you need?	0.736	1.401			
Do you think your institution has adequately informed you about the features of COVID-19 (transmission, lifespan, prevention methods)?	0.777	1.515			
Do you think that the testing, diagnosis, treatment, and radiation algorithms for COVID-19 are sufficient?	0.710	1.375			
Personal Behaviour			0.796	0.880	0.709
Do you think you can infect your family and loved ones with COVID-19?	0.814	1.393			
Do you believe you are at risk of COVID-19?	0.844	2.132			
Do you believe your family and loved ones are at risk of COVID-19?	0.867	2.208			
Do you think you have gained sufficient experience in combating epidemics during the COVID-19 process?	0.752	1.195			

The VIF values of the variables being greater than 5 means that there is a high correlation between the variables in the research model ¹⁶.

Items that are with low loading and high AVE value were excluded from the analysis. VIF values of variables within the scope of the research model were found to be less than 5, and it is accepted that there is no linearity problem among the variables. Moreover, the loadings of the items are all above 0.7, meaning that indicator reliability is achieved (17,18).

Internal Consistency of Scales: Cronbach's alpha, which is a common method used to measure the reliability and internal consistency of scales, was used (19). Hair et al. (17). suggested that the reliability of a scale is generally accepted if the value of Cronbach's alpha for each construct is equal or greater than 0.70. In addition to Cronbach's Alpha analysis, Fornell

and Larcker (20). recommended that the value of Composite Reliability (CR) for each construct is equal to or greater than 0.70 too.

Convergent Validity: AVE tests were conducted to measure convergent validity. The value of the AVE must exceed 0.50 for the convergent validity to be assured (20,21,22).Table 2 shows the results of convergent validity and internal consistency (reliability). All variables and constructs are found to have met the norm values. The AVE values are all above 0.50, which means convergent validity is also achieved. The values of Cronbach’s alpha for each factor are greater than 0.70 (19), and CR values are higher than 0.7, which are above the norm value to secure data internal consistency (17).

Fornell-Lacker’s discriminant validity analysis was made. The criterion by Fornell and Larcker (20). that the scores are significantly larger than any other correlation coefficients among each construct, indicating good discriminant validity is applied to evaluate discriminant validity. Table 2 shows the results of Fornell-Lacker’s discriminant validity analysis, and it is concluded that discriminant validity is established for all factors of the study.

Table 2. Discriminant Validity Based on the Fornell-Larcker and HTMT Criteriums

		1	2	3	4	5	1	2	3	4	5
1	Organisational Behaviour	0.842									
2	Personal Behaviour	-0.076	0.842				0.803				
3	Personal Hygiene	0.481	0.033	0.847			0.753	0.715			
4	Public Behaviour	0.059	0.255	0.187	0.842		0.772	0.706	0.737		
5	Result of COVID-19	-0.098	0.491	0.002	0.335	0.887	0.733	0.636	0.770	0.786	

Further assessment was conducted with the Heterotrait-Monotrait (HTMT) analysis techniques as suggested by Henseler, Dijkstra, Sarstedt, Ringle, Diamantopoulos & Straub (23) as shown in Table 2, which specifies that almost all the values are less than 0.90 (24). Some values are higher than .90, but other reliability and validity analyses’ results are satisfying, and Fornell-Lacker’s discriminant validity has been met. Thus, the analysis was continued.

2.2.6.Evaluation of the Structural Model

Validity and reliability analyses’ results of the scales were satisfied, then a preliminary assessment of the research model and theoretical framework was conducted by determining the R² measure of the endogenous constructs and the path coefficients (25-26).

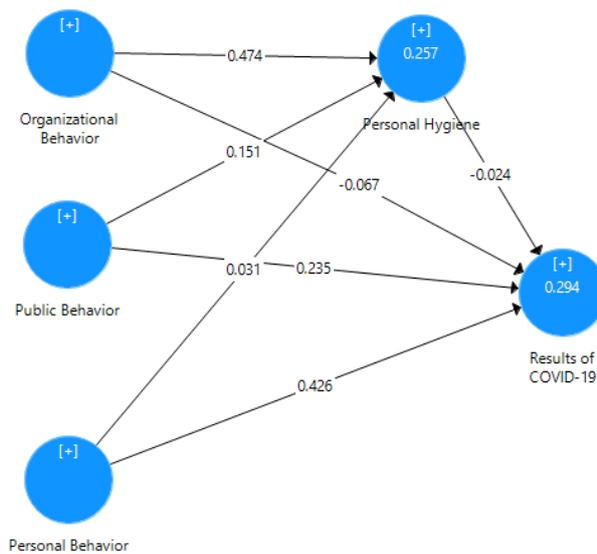


Fig 1. Research Model Path Analyses

(27) describe R^2 values of 0.67, 0.33, and 0.19 as substantial, moderate, and weak, respectively. The R-square value indicates what percentage of the variance is explained by the research model (28). Figure 1 the R^2 values of almost all endogenous constructs in this study were weak but expectable. R^2 values suggest that the model has a moderate level of predictive accuracy for the latent variables.

The next analysis is the analysis of the predictive power of the research model. The standardised root mean square residual (SRMR) is defined as the difference between the observed correlation and the model-implied correlation matrix (29). Thus, it allows assessing the average magnitude of the discrepancies between observed and expected correlations as an absolute measure of the (model) fit criterion. A value of less than 0.10 or 0.08 is considered a good fit (23). The research model SRMR value is 0.077, and the model was found to be suitable.

The RMS_{θ} is the root mean squared residual covariance matrix of the outer model residuals. RMS_{θ} values below 0.12 indicate a well-fitting model (23). RMS_{θ} value of 0.127 was obtained. According to RMS theta analysis, the research model was not fit. However, the analysis was continued as other indicators and results were appropriate.

In addition to the PLS Algorithm, the bootstrapping analysis using 5000 sub-samples from the 985 cases used in the study was performed to estimate the direct and mediated relationships (30).

Table 3. Path Coefficients, Indirect and Mediating Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values		
Org.Beh. -> Pers. Hygiene	0.474	0.477	0.028	17.141	0.000		
Org.Beh. -> Results of COVID-19	-0.079	-0.079	0.026	3.027	0.002	H ₃	Supported
Pers.Beh. -> Pers. Hygiene	0.031	0.031	0.033	0.923	0.356		
Pers.Beh. -> Results of COVID-19	0.426	0.425	0.034	12.577	0.000	H ₁	Supported
Pers. Hygiene -> Results of COVID-19	-0.024	-0.025	0.036	0.670	0.503		
Pub.Beh. -> Pers Hygiene	0.151	0.151	0.041	3.716	0.000		
Pub.Beh. -> Results of COVID-19	0.231	0.234	0.033	6.958	0.000	H ₂	Supported
Org.Beh. -> Pers. Hygiene -> Results of COVID-19	-0.011	-0.012	0.017	0.663	0.507	H _{3a}	Not Supported
Pers.Beh. -> Pers.l Hygiene -> Results of COVID-19	-0.001	-0.001	0.002	0.420	0.675	H _{1a}	Not Supported
Pub.Beh. -> Pers. Hygiene -> Results of COVID-19	-0.004	-0.003	0.005	0.658	0.511	H _{2a}	Not Supported

***p<0.01, **p<0.05, *p<0.1

The t-statistics and p values in Table 3 indicated that H₁, H₂, and H₃ the path coefficients of the model were statistically significant; in regards to the mediator effects H_{1a}, H_{2a}, H_{3a} were supported. According to the results of this research, personal hygiene has no mediator effect.

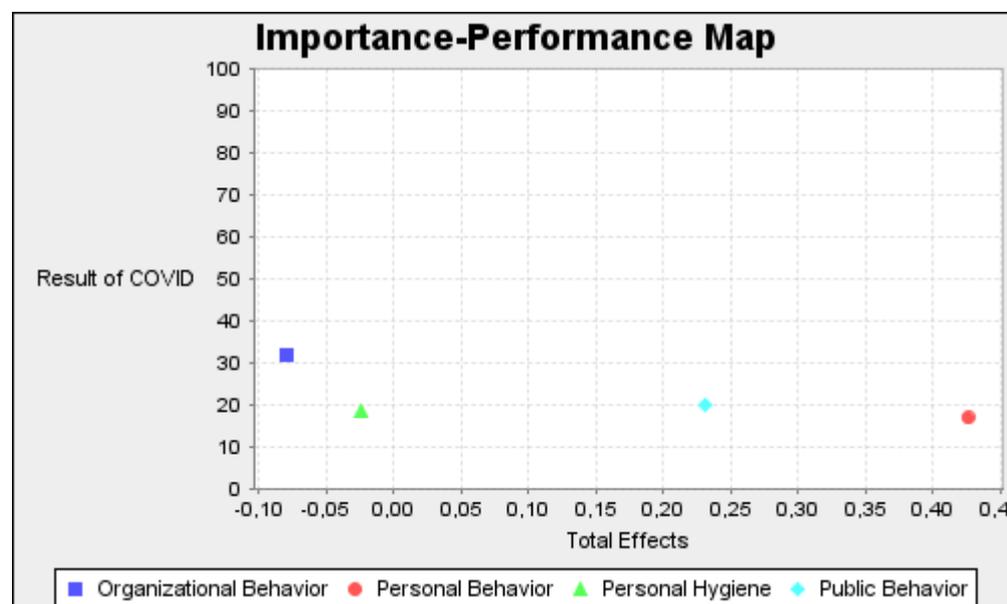


Figure 2. Importance-Performance Map Analysis for COVID-19

COVID-19 result is the target constructs, which is predicted by four predecessors (i.e. organisation, person, personal hygiene public) IPMA has been performed for each construct and results are presented in Figure 2. Based on Figure 2, the most important construct is the people themselves. In Table 4, it can be observed that the performance effect of the organisation is higher than other constructs. According to participants, the organisation is the most important construct for COVID-19. For the ease of readers, a complete list of importance-performance values is provided in Table 4.

Table 4. Importance-performance map analysis for COVID-19

	Latent Variables Performances
Organisational Behaviour	32.012
Personal Behaviour	16.820
Personal Hygiene	18.401
Public Behaviour	19.995

3. DISCUSSION AND CONCLUSIONS

The covid-19 outbreak from Wuhan, China, on 31st December 2019 and which is considered a pandemic by the World Health Organization on 12th March 2020, has affected the entire world and reached Turkey. The outbreak was first observed in Turkey on March 11 and spread rapidly in our country. In the first days of the outbreak, the government tried to control the outbreak by taking a number of measures. The government tried to prevent the spread of the epidemic with some measures such as travel bans between provinces, the obligation to wear masks, and the closure of workplaces. All these measures have been taken, but while the epidemic is still spreading, this study, which was conducted from the view of healthcare professionals who are actually fighting the epidemic, tried to reveal the thoughts of health workers during the epidemic. 86.35% of healthcare personnel in Turkey are at risk of Covid-19, so their families are also at risk; when caught Covid-19, they will encounter serious complications or are worried about the possibility of death. According to the study, 80.50% of healthcare workers think that they have taken adequate precautions against Covid-19, while 87% of employees worry that they may infect their family or loved ones. 66.49% of healthcare personnel think that citizens have not taken adequate measures against Covid-19. For this reason, healthcare professionals consider it appropriate to introduce some restrictions to prevent the spread of Covid-19.

While healthcare personnel pay attention to measures such as washing hands frequently, avoiding physical contact, disinfecting surfaces, and maintaining social distance with people, they are still worried about the transmission of Covid-19. Healthcare workers think that cooperation with Experts (such as virologists and other doctors) is necessary for the process of combating Covid-19 and that the testing, diagnosis, treatment and radiation

algorithms for Covid-19 are sufficient. 64.54% of healthcare professionals see their profession as a respected and reliable professional in the process of combating Covid-19. When the Covid-19 vaccine was discovered, healthcare workers said that 67.04% would agree to be vaccinated, and 32.96% said they would not be vaccinated. 48.02% of healthcare professionals stated that Covid-19 was produced in a laboratory environment, 30.32% was not produced in a laboratory environment, and 21.66% of them were indecisive on this issue. Since the number of cases did not increase significantly after the study, the government gradually softened the bans after June and implemented policies to return life to normal after the summer months. After these policies began to experience a serious increase in the number of daily cases in Turkey, restrictions were again introduced. In this study, it was tried to evaluate the difficulties and worries in the fight against Covid-19 experienced by healthcare professionals and the public's attitude towards Covid-19.

REFERENCES

1. Arda B, Aciduman A. Türk'ün H1N1'le İlk İmtihani": 1918-19 İnfluenza Pandemisinin Ülkemizdeki Görünümü. *Klinik Gelişim*, 2010;28-35.
2. WHO, *Making preparation count: lessons from the avian influenza outbreak in Turkey* . 04 10, 2020 tarihinde <http://www.euro.who.int/en/publications/abstracts/making-preparation-count-lessons-from-theavian-influenza-outbreak-in-turkey>
3. T.C. Sağlık Bakanlığı. *Yeni Koronavirüs Hastalığı (COVID-19)*. 04 10, 2020 tarihinde <https://covid19bilgi.saglik.gov.tr/tr/>
4. Aslan R. Tarihten Günümüze Epidemiler, Pandemiler ve Covid-19. *Ayrıntı Dergisi*, 2020; 35-41.
5. Worldometers. *COVID-19 Coronavirus Pandemic*. 07 05, 2020 tarihinde <https://www.worldometers.info/coronavirus/>
6. Güreşçi M. Covid-19 Salgınında Türkiye'De Kriz Yönetimi İletişimi: TC Sağlık Bakanlığı. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi*, 2020; 53-65.
7. [Aydın Kılınç Z, Dağ E. *Türkiye'de İlk 2 Ay Boyunca Covid-19 Salgınına Genel Bakış* 2020. (Cilt 1). Turkish Journal Of Health And Sport. http://localhost/istr/docview.php?r_id=95
8. TUİK. 05 13, 2020 tarihinde http://tuik.gov.tr/PreTablo.do?alt_id=1095
9. Tam CW, Pang EP, Lam LC, Chiu EF. Severe acute respiratory syndrome (SARS) in Hong Kong in 2003: stress and psychological impact among frontline healthcare workers. *Psychological medicine*, 2004;1197-1204.

10. Lee SM, Kang WS, Cho AR, Kim T, Park JK. Psychological impact of the 2015 MERS outbreak on hospital workers and quarantined hemodialysis patients. *Comprehensive psychiatry*, 2018;123-127.
11. Wu PE, Styra R, Gold WL. Mitigating the psychological effects of COVID-19 on health care workers. *CMAJ*, E459-E460. 2020.
12. Wang J, Liu F, Tan J, Harbarth S, Pittet D, Zingg W. Implementation of infection prevention and control in acute care hospitals in Mainland China - a systematic review. *Antimicrob Resist Infect Control*, 32. doi:<https://doi.org/10.1186/s13756-019-0481-y>(2019).
13. Wang J, Zhou M, Liu F. Reasons for healthcare workers becoming infected with novel coronavirus disease 2019 (COVID-19) in China. *Journal of Hospital Infection*, 100-101. doi:<https://doi.org/10.1016/j.jhin.2020.03.002> (2020).
14. Caley P, Philp DJ, McCracken K. Quantifying social distancing arising from pandemic influenza. *Journal of The Royal society Interface*, 2008; 631-639. doi:10.1098/rsif.2007.1197
15. Qiu W, Rutherford S, Mao A, Chu C. *The pandemic and its impacts*. *Health* 2017;(Cilt 9). culture and society.
16. Hair JF, Black WC, Babin B, amp Anderson R E. *Multivariate Data Analysis*. New Jersey: Prentice Hall. 2010.
17. Hair JF, Hult GT, Ringle CM, Sarstedt M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Los Angeles: Sage Publication. 2017.
18. Chang YW, Hsu PY, Yang QM. Integration of online and offline channels: A view of O2O commerce. *Internet Research*. 2018.
19. Cronbach LJ. *Essentials of Psychological Testing*. New York: HarperCollins. 1990.
20. [Fornel C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 1981;18(1), 39-50.
21. Urbach N, Ahlemann F. Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application*, 2010;11(2) , 5-40.
22. Falk RF, Miller NBA, *Primer for A Soft Modeling*. Ohio: The University of Akron. 1992.
23. Henseler J, Dijkstra TK, Diamantopoulos A, Straub DW, Sarstedt M, Ringle CM. Common beliefs and reality about partial least squares. *Organizational Research Methods*, 2014; 17(2), 182-209.
24. Gold AH, Malhotra A, Segars AH. Knowledge management: An organizational capabilities perspective. *Journal of management information systems*, 2001; 18(1), 185-214.

- 25.Chin WW. How to write up and report PLS analyses. In *Handbook of partial least squares* Springer, Berlin, Heidelberg. 2010; pp. 655-690.
- 26.Hair JF, Ringle CM, Sarstedt M. PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 2011;19(2), 139-152.
- 27.Henseler J, Ringle CM, Sinkovics RR. The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 2009;20, 277-319.
- 28.Garson JA. *critical overview of biological functions*. Cham: Springer International Publishing. 2016.
- 29.SmartPLS. *Model Fit*. SmartPLS: <https://www.smartpls.com/documentation/algorithms-and-techniques/model-fit> (2020, June 28).
- 30.Hair JF, Sarstedt M, Ringle CM, Mena J. An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 2012; 40(3), 414-433.
- 31.Andersen, K. G., Rambaut, A., Lipkin, W. I., Holmes, E. C. ve Garry, R. F. The Proximal Origin of Sars-Cov-2. *Nature Medicine*, 2020;26 (4), 450-452.
- 32.Telli, S. G. ve Altun, D. (Coronavirüs ve Çevrim içi (Online) Eğitimin Önlenemeyen Yükselişi. *Üniversite Araştırmaları Dergisi*, 202;. 3 (1), 25-34.
- 33.Nesanır, N., Bahadır, A., Karcıoğlu, Ö., & Fincancı, Ş. K. Pandemi Sürecinde Türkiye’de Sağlık Çalışanı Ölümünün Anlattığı. April 2022. https://www.ttb.org.tr/kutuphane/sc_olumleri.pdf
- 34.Arık, F. Ş. Selçuklular Zamanında Anadolu’da Veba Salgınları. *Tarih Araştırmaları Dergisi*, 1991;15(26), 27-57.