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Opinions of Public Health Personnel in Konya Province about the Precautions Taken During COVID-19 Pandemia Process

Konya İli Kamu Sağlık Çalışanlarının COVID-19 Pandemi Sürecinde Alınan Önlemler Hakkındaki Görüşleri

Serap Batı[1]*, İbrahim Çetin[1]

[1]Necmettin Erbakan Üniversitesi, Seydişehir Kamil Akkanat Sağlık Bilimleri Fakültesi, Hemşirelik Bölümü, Konya, Türkiye

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ABSTRACT

Aim: The COVID-19 virus, which emerged in Wuhan, China, spread all over the world and turned into a major epidemic. As in all countries, many precautions have been taken by health authorities in Turkey to reduce the spread of the epidemic. This study aims to evaluate the taken precautions from the perspective of health personnel. **Subjects and Method:** The population of the descriptive study was composed of public health personnel working in Konya. The sample size was calculated as 387 by random sampling method with known universe. The highest number of participants that can be reached via online questionnaire without quota distinction was targeted. The form used to collect the data was prepared by the authors with the literature review after the expert opinions were taken. The statistical analysis was performed by SPSS 22.0. **Results**: In the study, which was provided by the participation of 1070 public health personnel, the data were collected by online survey method. 37.2% of the participants in the study are nurses, 34.1% are physicians, 14.1% are midwives and 14.6% are members of other health professions. The health personnel think that the use of masks control the infection at 96.8% rate, hand hygiene at 96.5%, social distance rules at 97.7%, curfews at 95.8% and the use of gloves at 67.9%, and these precautions reduce the course of the epidemic. **Conclusion:** The majority of the healthcare personnel find the precautions sufficient. The deactivation of precautions without adequate epidemic control is very important in terms of effective epidemic management and reducing the burden on healthcare personnel.

Keywords: COVID-19**,** healthcare personnel, pandemic

Makale Bilgisi

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ÖZ

Amaç: Çin'in Wuhan kentinde ortaya çıkan COVID-19 virüsü hızla tüm dünyaya yayılarak büyük bir salgına dönüşmüştür. Tüm ülkelerde olduğu gibi ülkemiz sağlık otoriteleri tarafından salgının yayılma hızını azaltmak amacı ile birçok önlem alınmıştır. Bu çalışma, alınan önlemlerin sağlık çalışanları gözünden değerlendirilmesi amacı ile yapılmıştır. **Örneklem ve Yöntem:** Tanımlayıcı tipteki çalışmanın evrenini Konya ilinde görev yapan kamu sağlık çalışanları oluşturmuştur. Evreni bilinen örneklem yöntemine göre hesap yapılarak, örneklem büyüklüğü 387 hesaplanmış, bu sayının altında kalmamak koşuluyla ulaşılabilen en yüksek katılımcı sayısı hedeflenmiştir. Araştırma verilerin toplanmasında kullanılan anket formu literatür değerlendirmesi ile araştırmacılar tarafından hazırlanmış, sonrasında uzman görüşü alınmıştır. Araştırmada elde edilen ham veriler SPSS 22.0 programına kaydedilerek işlenmiş ve değerlendirilmiştir. **Bulgular:** 1070 kamu sağlık çalışanı katılımının sağladığı araştırmada veriler çevrim içi anket yöntemi ile toplanmıştır. Çalışmaya katılanların %37,2'si hemşire, %34,1'i hekim, %14,1'i ebe ve %14,6'sı diğer sağlık meslek gruplarına mensup kişiler oluşturmaktadır. Çalışanlar enfeksiyon kontrol önlemlerinden maske kullanımının %96,8, el hijyeni sağlamanın %96,5, sosyal mesafe kuralları uygulamasının %97,7, sokağa çıkma kısıtlamalarının %95,8 ve eldiven kullanımının %67,9 oranında salgının seyrini azaltıcı etkisi olduğunu düşünmektedir. **Sonuç:** Sağlık çalışanlarının büyük çoğunluğu alınan önlemleri yeterli bulmaktadır. Alınan önlemlerin yeterli salgın kontrolü sağlanmadan kaldırılmaması; etkili salgın yönetimi ve sağlık çalışanlarının üzerindeki yükün azaltılması açısından önem taşımaktadır.

Anahtar Kelimeler: COVID-19, sağlık çalışanı, pandemi

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***Sorumlu yazar/Corresponding author:** Serap Batı, serapbati@gmail.com

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Introduction

COVID-19 virus emerged in Wuhan, Hubei Province, China in the first months of 2019 with respiratory symptoms (fever, cough, shortness of breath) and was identified on January 13, 2020 because of research conducted in a group of patients (Yürük & Çelik, 2020). It has transformed and posed a serious threat to public health. The disease was defined as a "global emergency" by the World Health Organization (WHO) on January 30, 2020, and was declared a "pandemic" on March 11, 2020. The first case in Turkey was seen on 11th of March.

From the first days of the epidemic, guides, videos and posters containing information about COVID-19 disease, prevention methods, hygiene and isolation rules have been prepared, and these educational contents for the society have been delivered to the public through radio, television and social media. In these materials, those with symptoms of infection such as fever, cough and sore throat are advised to apply to the healthcare institution, use masks, avoid entering crowded environments, obey social distance and hygiene rules, and apply isolation at home for 14 days for those traveling abroad (Özgüler & Meşe, 2020; Özkara et al., 2020). The continuation of the epidemic has been caused by many precautions such as restriction of entry and exit from all countries, quarantine measures, stopping collective activities, interrupting education, intercity travel restrictions and curfews (Alıcılar et al., 2020).

In the fight against COVID-19 infection, which spreads very rapidly and has a high mortality rate. In this respect, individuals, society and state have great responsibilities at all levels. Health personnel who undertake the diagnosis, treatment and care processes of the disease also have an important place among those who take this responsibility for the disease (Polat & Coşkun, 2002). The aim of this study is to evaluate the implemented precautions during the epidemic process from the perspective of healthcare personnel.

Subjects and Method

The research is designed in cross-sectional and descriptive type. The universe of the research is the healthcare personnel working in the institutions and organizations affiliated with the Ministry of Health in Konya province. They were physicians, nurses, midwives, emergency medical technicians (EMT), x-ray technicians, ambulance and emergency care technicians (AABT) and laboratory professionals trained in the fields of health sciences. The number of health personnel working throughout the province is 9373. This value was taken as the volume of the research population, the confidence interval was considered as 95% and the Type-I error as 5%. Using the formula for calculating the sample size in studies conducted over a single sample, the smallest value of the sample volume was found to be 387 participants (Erdoğan et al., 2014; Yazıcıoğlu & Erdoğan, 2014). In the study, comparison was not performed between the demographical groups, and the correlational significance based on the comparison was not sought. In the study, it was only aimed to reveal and define the existing opinions. Therefore, no statistical method was used. The highest number of mixed participants that can be reached via online questionnaire without quota distinction was targeted, and 1070 people were reached. Providing the participant with both temporal and spatial advantage in data collection, no cost, no transmission risk in pandemic conditions, online survey method was preferred. The informed consent of the participants was obtained through the questionnaire form.

The form used to collect the data was prepared by the authors with the expert opinions were taken after the literature review (Dikmen et al.,; 2020, Erdem, 2020; Mhango et al.,; 2020, Parikh et al., 2020; Qi et al., 2020; Vindrola-Padros et al., 2020).

In order to create the questionnaire and to determine the question groups in the form, firstly, similar articles were scanned and the relevant ones were reviewed. Scanning was performed using different combinations of keywords (Health Professionals, Health workers, COVID 19 + Opinion + Perception, Attitude) on PubMed and Google Academic. Similarly, studies on the measures taken during the COVID 19 pandemic in Turkey were examined. Additionally, The Turkish Ministry of Health Scientific Advisory Board's "Guidelines for Working in Health Institutions and Infection Control Measures in the COVID-19 Pandemic" guide was used (T.C. The Ministry of Health, 2020). After survey form and sub-categories were created, they were presented for expert opinion.

The online questionnaire form consists of 25 questions and structurally four groups of questions. The first group includes the demographic characteristics of the participants, the second group for the data of individuals and their relatives on exposure to COVID-19, the third group questions for the opinions about the precautions taken against the spread of COVID-19 in social life, and the fourth group questions about the factors that affect the success of the precautions. The third group of questions was close-ended and the participants were asked to mark the one closest to them among the categorical answer statements ("It is a reducing factor", "It is an enhancing factor", "It did not affect"). The fourth group of questions are open-ended, and they were not required to be answered in order to avoid a decrease in participation in the research.

The questionnaire was delivered to the participants by using an online method. The data were collected and processed anonymously. There are no questions revealing the identity of the participants on the questionnaire form. During the collection of the online questionnaires of the participants, the personal information of the participant such as name, phone number, e-mail, etc. was not collected. Our study was conducted in accordance with the principles of the Declaration of Helsinki. Before the research, the permissions from the Ministry of Health COVID-19 Scientific Research and Evaluation Commission (2020-10-05T16_44_53), Necmettin Erbakan University University Health Sciences Scientific Research Ethics Committee (04.11.2020, 2/4) and Konya Provincial Health Directorate (30.12.2020, 86737044-806.01.03) were obtained.

The statistical analysis was performed by SPSS 22.0 (IBM Inc. USA). The descriptive statistics were presented as mean±SD for numerical variables and frequency (percentage) for categorical variables.

Results

A total of 1070 healthcare personnel participated in the study. The socio-demographic characteristics of the participants were included in Table 1. The mean age of the participants is 37.71 ± 8.68 years, and those between the ages of 41-50 constituted the largest group by age with 35%. Of the participants, the women percentage was 65%, and 32.9% was healthcare personnel for 11-20 years. While nurses constituted the most crowded occupational group with 37.2%, this was followed by physicians with 34.1%. Family health / public health centres (FHC/PHC) hosted the majority of the participants with a percentage of 30.7.

Table 1. Sociodemographic Characteristics of the Participants (n=1070)

Characteristics	n	%
Age[1]		
21-30	270	25.2
31-40	357	33.4
41-50	375	35.0
51 and above	68	6.4
Total	1070	100
Gender		
Woman	695	65.0
Man	375	35.0
Total	1070	100
Job		
Nurse	398	37.2
Doctor	365	34.1
Midwife	152	14.2
Paramedic	53	5.0
Labour	48	4.5
Ambulance and Emergency Care Techniques	28	2.6
X-RAY Technician	26	2.4
Total	1070	100
Time worked in the profession		
Less than 1 year	68	6.4
1-5 years	133	12.4
6-10 years	202	18.8
11-20 years	352	32.9
21 years and above	316	29.5
Total	1070	100
Working Unit		
FHC/PHC	328	30.7
Clinical Services	132	12.3
Administrative Sciences	113	10.6
Emergency	108	10.1
Policlinic	69	6.4
Intensive care unit	66	6.2
112 ambulance station	56	5.2
Other[2]	198	18.5
Total	1070	100

[1] The average age 37.71±8.68, [2] Other option in the working unit; The isolation unit includes the laboratory, hemodialysis, fillation, operating room and units that are not specified (unknown) by the participant. FHC/PHC: Family Health Center/Public Health Center.

86.1% of the participants stated that they directly serve patients with suspected COVID-19. The rate of those who have been tested for COVID-19 was 70.7%, and the rate of those who are diagnosed was 30.7%, and 43.3% of them was

diagnosed with COVID-19 infection. The rate of those diagnosed with COVID-19 infection among the family members living with the participants was 40.4%. The rate of participants who stated that COVID-19 infection was diagnosed in at least one colleague was 92.7% (Table 2).

Table 2. COVID-19 Contact Status Characteristics of the Participants (n=1070)

Characteristics	n	%
Providing service to patients with suspected COVID-19		
Yes	921	86.1
No	149	13.9
Total	1070	100
Having been tested for COVID-19		
Yes	757	70.7
No	313	29.3
Total	1070	100
Having been diagnosed with COVID-19 infection		
Yes[1]	328	30.7
No	742	69.3
Total	1070	100
COVID-19 infection status of the family member living together		
Yes	432	40.4
No	638	59.6
Total	1070	100
At least one colleague's diagnosis of COVID-19 infection		
Yes	992	92.7
No	78	7.3
Total	1070	100

[1]The rate of those diagnosed with COVID-19 infection to the participants who had a test is 43.3%.

The opinions of the participants on the intensity of work according to the units are given in Table 3. Regardless of the unit of work, approximately half of the participants stated that they are working less than before. However, the intensive care unit employees were the largest group (50%) who indicated working more than before the pandemic process. The groups stating that there is an increase in the number of people served during the pandemic process on the basis of the working unit were 112 ambulance station (87.5%), intensive care unit (62.1%) and FHC/PHC employees (52.7%), respectively. Outpatient clinic employees are at the top of the groups stating that there has been a decrease in the number of people they serve compared to before with 56.5%.

Table 3. Opinions of the Participants Regarding the Pandemic Period Work Intensity According to the Unit They Work in (n=1070)

Criterion/unit of study[1]	More than before		Less than before		No difference		Total	
Changes in working time during the pandemic process[2]	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
FHC/PHC	100	30.5	151	46.0	77	23.5	328	30.7
Clinical Services	45	34.1	79	59.8	8	6.1	132	12.3
Administrative Sciences	44	38.9	48	42.5	21	18.6	113	10.6
Emergency	43	39.8	58	53.7	7	6.5	108	10.1
Policlinic	18	26.1	38	55.1	13	18.8	69	6.4
Intensive care unit	33	50.0	27	40.9	6	9.1	66	6.2
112 ambulance station	18	32.1	35	62.5	3	5.4	56	5.2
Other	80	40.4	93	47.0	25	12.6	198	18.5
Total	381	35.6	529	49.4	160	15.0	1070	100
Changes in the number of people served during the pandemic[2]								
FHC/PHC	173	52.7	69	21.0	86	26.2	328	30.7
Clinical Services	56	42.4	44	33.3	32	24.2	132	12.3
Administrative Sciences	35	31.0	37	32.7	41	36.3	113	10.6
Emergency	44	40.7	44	40.7	20	18.5	108	10.1
Policlinic	13	18.8	39	56.5	17	24.6	69	6.4
Intensive care unit	41	62.1	10	15.2	15	22.7	66	6.2
112 ambulance station	49	87.5	1	1.8	6	10.7	56	5.2
Other	93	47.0	56	28.3	49	24.7	198	18.5
Total	504	47.1	300	28.0	266	24.9	1070	100

[1]Unit ordering, as in table 1; It was made starting from the area where the participants were most in number. [2]Detection is based on participant statement only. FHC/PHC: Family Health Centre/Public Health Centre

The opinions of the healthcare professionals on the effectiveness of the precautions, 97.7% stated that social distance practice reduce the risk of disease transmission while this number was 96.8% for the use of masks and 96.5% for hand washing. This rate has decreased to 95.8% for curfews and to 67.9% for the use of gloves by the public. The rate of those who stated that the use of gloves did not affect or increased the virus transmission was 32.1% among all participants. When the reasons of the supporters of this opinion are examined, the statements that the use of gloves are not in compliance with the rules (32.3%), that it leads to a decrease in hand washing behaviour (29%) and that the glove protects people from personal contamination (27.7%) constitute the top three answers given to the question (Table 4).

Table 4. Participant Views on the Precautions Taken (n =1070)

Type of precautions	n	%
Social distance application		
It has reduced virus transmission	1045	97.7
Did not affect virus transmission	22	2.1
Increased virus transmission	3	0.3
Total	1070	100
Use of masks		
It has reduced virus transmission	1036	96.8
Did not affect virus transmission	31	2.9
Increased virus transmission	3	0.3
Total	1070	100
Hand washing		
It has reduced virus transmission	1033	96.5
Did not affect virus transmission	33	3.1
Increased virus transmission	4	0.4
Total	1070	100
Curfew restriction		
It has reduced virus transmission	1025	95.8
Did not affect virus transmission	41	3.8
Increased virus transmission	4	0.4
Total	1070	100
Use of gloves		
It has reduced virus transmission	726	67.9
Did not affect virus transmission	223	20.8
Increased virus transmission	121	11.3
Total	1070	100

Participants were asked what could be the most important factor increasing the spread of COVID-19 in an open-ended manner. Ninety-nine participants answered this question. When the answers were categorized, three main factors emerged as “not hesitating to be in crowded environments, the understanding that nothing will happen to me (25.3%) ”not following the rules (21.2%)”, and “family visits, wedding and condolence (14.1%). In addition, seven participants (7.1%) accepted that sanctions and penalties were insufficient. A total of 315 written answers were received from the participants for the five open-ended questions of the study (Table 5).

Table 5. Written Opinions of the Participants about the Spread of COVID-19 Infection

Opinion	n[1]	%[2]
The use of masks did not affect or increased virus transmission		
The use of masks is not in accordance with the rules	13	59.1
Not as effective as other precautions / other precautions will be sufficient	6	27.3
Using a mask prevents normal breathing after a while	3	13.6
Total written opinion on the item	22	100
Use of gloves did not affect or increase virus transmission		
The use of gloves is not in accordance with the rules	50	32.3
It leads to a decrease in hand washing behavior	45	29.0
It increases the risk of misconduct by strengthening the feeling that it is protected from contamination	43	27.7
Not as effective as other precautions / other precautions will be sufficient	11	7.1
The importance of using gloves is not understood, not adopted	6	3.9
Total written opinion on the item	155	100
Curfew restriction did not affect or increased virus transmission		
People resist the restriction, this measure is violated	15	57.7
When the limited days are over, more people go out to the streets / restriction does not reduce the density in closed areas such as shopping malls and markets	11	42.3
Total written opinion on the item	26	100
Social distancing did not affect or increased virus transmission		
Having intimate, personal relationships that make it difficult to maintain social distance	5	38.4
The importance of social distance in preventing transmission was not understood, not adopted	4	30.8
Wedding, funeral, etc. social activities	4	30.8
Total written opinion on the item	13	100
What is the most important factor increasing the spread of COVID 19?		
Not hesitating to be in crowded environments, the understanding that nothing will happen to me	25	25.3
Not following the rules	21	21.2
Family visits, wedding and condolence	14	14.1
People's complacency over time	8	8.1
Unconsciousness	8	8.1
Insufficient control and criminal practices, low deterrence of penalties	7	7.1
Businesses do not take adequate precautions	5	5.0
Other (intercity roaming, schools open, failure to comply with quarantine rules)	11	11.1
Total written opinion on the item	99	100
The sum of all written comments	315	-

[1]There are participants who gave more than one opinion for each item, [2]Ratios are calculated based on the number of written comments on the item.

Discussion

In this study, it is aimed to evaluate the precautions regarding the COVID-19 pandemic, which has been seen in Turkey since March 2020, from the perspectives of healthcare professionals. The results of the study show that the majority of healthcare professionals find the precautions as sufficient. Similarly, in a study conducted with 1050 individuals between the ages of 18-70 throughout Turkey, people stated that they found the preventive studies related to the current epidemic

sufficient (Ekiz et al., 2020). In another study conducted with 4016 people in Anhui Province of China, the people found that the precautions taken throughout the country were sufficient (Chen et al., 2020). In a study conducted with 1179 people, including healthcare professionals, 34.6% of the participants stated that the precautions were taken on time and adequately, and 15.3% of the society adapted to the precautions (Alıcılar et al., 2020). These rates are very low compared to the findings of our study. The difference in the participant profile may be a reason for this situation. In addition, the fact that the precautions are not implemented correctly by people may be one of the factors that determine the social cohesion. In our research, some of the participants support this view, the use of masks is not in accordance with the rules, people resist curfew restrictions, interpersonal relationships and intimacy make it difficult to maintain social distance, weddings, condolences, etc. due to the socio-cultural structure. It was stated that the meetings were not given up. In a study conducted with emergency service employees, the rate of people finding adequate social precautions for the epidemic was found to be low (Ergün et al., 2020). In our study, the precautions taken during the pandemic process were found to be sufficient, but some of the participants stated that people do not adopt the precautions sufficiently, sanctions may be inadequate and deterrence is low.

Wearing a mask is one of the applications used as a preventive measure in respiratory diseases (Leung et al., 2020; WHO, 2021). Mask protection varies between 0% and 100% depending on the correct use of the mask. It can be said that common mask usage mistakes, which are seen in the society, are not being able to adjust the mask and frequently touching the face (Teslya et al., 2020). In this study, 13 out of 22 people who said that the mask is an ineffective or increasing factor in the course of the epidemic and, stated the reason as "not using the mask in accordance with the rules".

Since the virus is highly contagious through respiratory tract (droplets from infected people, coughing or sneezing) and contact with contaminated surfaces, transmission and spread in the community can be reduced with regular and careful hand hygiene (Batırel, 2020). In a study evaluating social hand washing knowledge and attitude during the COVID-19 epidemic, it was found that the frequency of hand washing and their knowledge and attitudes towards ensuring hand hygiene during the pandemic process were improved (Uğurlu et al., 2020). In parallel with the findings of Uğurlu et al. (2020) in this study, the majority of the participants stated that hand hygiene was a factor reducing the course of the epidemic. In terms of hand hygiene, it has been stated that the use of gloves in public places is not a sufficient precaution, and the hygiene perception created by the use of gloves causes risky behaviours (Erkal et al., 2020; Dikmen et al., 2020). In the study, in accordance with the literature, 36.3% of the people stated that the use of gloves was either increasing or ineffective, and the reason was that "the use of gloves is not in accordance with the rules, it causes a decrease in hand washing behaviour and increases the risk of misconduct by strengthening the feeling that it is protected from contamination".

COVID-19 is transmitted through the droplet route and by transferring the agent to the mucous membranes after contact with the droplets scattered by sick people through coughing and sneezing. The social distancing measure is designed to reduce interactions between yet unidentified individuals who are carriers of the virus and people in the wider community (Wilder-Smith & Freedman, 2019). Its purpose is to avoid contact with respiratory droplets. World Health Organization (WHO) recommends the social distance rule of at least 1 m. In the study, people who said that social distance rules were an ineffective or increasing factor in the course of the epidemic and expressed their opinion on this, stated that social distance rules were not understood and adopted by the society.

Community-wide restrictions, that is, curfews, are interventions applied to the whole community, city or region, based on reducing the interaction of individuals other than providing basic needs (Erkal et al., 2020). When the literature is examined, the effect of curfew on economic activities and the elderly in general has been investigated (Çetin, 2020; Gencer, 2020; Türk, 2020) Despite all the negative effects revealed in the studies, the majority of the participants stated that the curfew restrictions had a decreasing effect on the course of the epidemic. This finding may mean that the participants evaluated the action taken by prioritizing health risks.

Healthcare professionals are the group at greatest risk in Turkey, as in many countries. According to the Ministry of Health data, the number of healthcare personnel diagnosed with COVID-19 is over 40,000 (Anonim, 2020). In the study conducted by Balcı et al. (2020) with healthcare personnel working in a pandemic hospital in a province in May 2020, 26.01% of the participants reported that their COVID-19 test was positive in their relatives. In the same study, 15.3% of the individuals stated that they performed the PCR test and 0.7% of them stated that the PCR test was positive (Balcı et al., 2020). Alıcılar et al. (2020) found that 13 people were diagnosed with COVID-19 in their study with 1179 people over the age of 18 throughout Turkey and 7 of these people were physicians. 70.7% of 1070 healthcare personnel who participated in the study had a PCR test and 43.3% of these people stated that the test results were positive. People stated that the rate of COVID-19 infection in family members living together was 40.4%, and the rate of occurrence in their colleague was 92.2%. The higher rate of healthcare personnel who had tests and diagnoses in this study may be related to the continuation of the pandemic process and the continuation of the employees in this process to serve patients or contact persons.

When the results on working life are examined, it is observed that 30.7% of the people work in FHC/PHC, 12.3% in clinical services, 10.6% in administrative units and 10.1% in emergency services. During the epidemic period, many workplaces contributed to reducing the contact in the society by developing practices such as remote or flexible working hours. 49.4% of the study group reported that they went to work less than before the epidemic. However, 87.5% of 112-ambulance station employees, 62.1% of those working in the intensive care unit, and 52.7% of those working in FHC/PHC stated that their work density increased compared to the pre-epidemic period. In a study conducted with FHCs, the participants stated that the number of patients decreased significantly in the early stages of the pandemic, but gradually returned to their previous state as of June 2020, even more than the pre-pandemic period (Güler et al., 2020).

Limitations of the Study

This research covers healthcare personnel working in public institutions in Konya, and the data collection was carried out through an online questionnaire. In this context, with the limitations of being a quantitative research, it is limited to people who can use communication technologies, who agree to participate in the research, who have been educated in the field of health, and who are professional public health workers.

Conclusion

Taking and adhering to non-pharmaceutical public health precautions to control the spread of COVID-19 disease is critical in combating the epidemic. As in many countries of the world, some precautions have been taken by the health authorities in Turkey. In the study, the opinions of healthcare professionals about the applied precautions and the precautions in the

control of the epidemic were revealed. According to the results of the research, the majority of healthcare personnel find the precautions sufficient. Participants think that the use of gloves leads to risky behaviour.

The aim of taking precautions is to reduce the burden on healthcare institutions and consequently healthcare workers rather than preventing the transmission completely. Thus, people stated that their workload increased compared to the pre-epidemic period. Not removing the precautions until effective prevention and treatment methods take effect and maintaining compliance with the precautions in the society are important in terms of epidemic management and reducing the burden on healthcare workers.

Ethics Statement

Our study was conducted in accordance with the principles of the Declaration of Helsinki. Before the research, the permissions from the Ministry of Health COVID-19 Scientific Research and Evaluation Commission (2020-10-05T16_44_53), Necmettin Erbakan University Health Sciences Scientific Research Ethics Committee (04.11.2020, 2/4) and Konya Provincial Health Directorate (30.12.2020, 86737044-806.01.03) were obtained.

Conflict of Interests

The authors declared no conflict of interest.

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Author Contributions

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References

Alıcılar, H. E., Güneş, G., & Çöl, M. (2020) Evaluation of awareness, attitudes and behaviors related to COVID-19 pandemic in society. *ESTÜDAM Halk Sağlığı Dergisi*, *5*(COVID-19 Özel Sayısı*)*, 1-16. https://doi.org/10.35232/estudamhsd.763461

Anonim (2020, October 14). *Sağlık Bakanı: pozitif sağlık çalışanı sayısı 40 bini geçti, hayatını kaybeden sayısı da 107.* Medimagazin. https://www.medimagazin.com.tr/hekim/saglik-bak/tr-saglik-bakani-pozitif-saglik-calisani-sayisi-40-bini-gecti-hayatini-kaybeden-sayisi-da-107-2-13-91791.html

Balcı, A., Çilekar, Ş., & Coşgun, İ. G. (2020). The evaluation of the health care professionals' knowledge, prevention and the perceptions on the treatment of new coronavirus (COVID-19). *Bezmialem Science, 8*(2*),* 27-35. https://doi.org/10.14235/bas.galenos.2020.4935

Batırel, A. (2020). Sars-COV-2: Infection and prevention. *Southern Clinics of İstanbul Euraia. 31*, 1-7. https://doi.org/10.14744/scie.2020.00378

Chen, Y., Jin, Y .L., Zhu, L. J., Fang, Z. M., Wu, N., Du, M. X, Jiang, M. M., Wang, J., & Yao, Y. S. (2020). The network investigation on knowledge, attitude and practice about COVID-19 of the residents in Anhui Province*. Zhonghua Yu Fang Yi Xue Za Zhi, 54*(4), 367–73. https://doi.org/10.3760/cma.j.cn112150-20200205-00069

Çetin, A.C. (2020). The impact of the coronavirus (COVID-19) pandemic on the general economic activities and stock market index in Turkey. *Journal of Applied Sciences of Mehmet Akif Ersoy University, 4*(2), 341-362.

Demirbilek, Y., Pehlivantürk, G., Özgüler, Z. Ö., & Meşe, E. A. (2020). COVID-19 outbreak control, example of ministry of health of Turkey. *Turkish Journal of Medical Sciences, 50*, 489–94. https://doi.org/10.3906/sag-2004-187

Dikmen, A. U., Kına, H. M., Özkan, S., & İlhan, M. N. (2020). Epidemiology of COVID-19: What we learn from pandemic. *Journal of Biotechnology and Strategic Health Research, 1* (Özel Sayı), 29-36. https://doi.org/10.34084/bshr.715153

Ekiz, T., Ilıman, E., & Dönmez, E. (2020). Comparison of health anxiety level and control perception of COVID-19. *International Journal of Health Management and Strategies Research*, *6*(1), 139-154.

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

Erdoğan, S., Nahcivan, N., & Esin, M. N. (Eds.) (2014). *Contemporary Nursing Knowledge: Analysis and Evaluation*. İstanbul: NOBEL Medical Bookstore.

Ergün, E., Ergün, Ş., & Çelebi, İ. (2020). The Factors affecting emergency health personnel's level of knowledge and protection about COVID-19. *Journal of Paramedic and Emergency Health Services, 1*(1), 16-27.

Erkal, E., Ses, A. G., Aydın, S., & Çalışkan, D. (2020). Non-pharmaceutical public health measures to prevent the transmission of COVID-19 in community. *ESTÜDAM Halk Sağlığı Dergisi. 5*(COVID-19 Özel Sayısı*),* 79-95. https://doi.org/10.35232/estudamhsd.765195

Gencer, N. (2020). Being elderly in COVID-19 process: Evaluations on curfew for 65-year-old and over citizens and spiritual social work. *TUSHAD*, *4*(1), 35-42.

Güler, S., Topuz, İ., & Ulusoy, F. (2020). Experiences of family health centre workers in the COVID-19 pandemic. *Journal of Public Health Nursing*, *2(3),* 143-151.

Leung, N., Chu, D., Shiu, E., Chan, K. H., McDevitt, J. J., Hau, B., Yen, H. L., Li, Y., Ip, D., Peiris, J., Seto, W. H., Leung, G. M., Milton, D. K., & Cowling, B. J. (2020). Respiratory virus shedding in exhaled breath and efficacy of face masks. *Nature Medicine*, *26*, 676–680. https://doi.org/10.1038/s41591-020-0843-2

Mhango, M., Dzobo, M., Chitungo, I., & Dzinamarira, T. (2020). COVID-19 risk factors among health workers: A rapid review. *Safety and Health at Work*, *11*(3), 262-265. https://doi.org/10.1016/j.shaw.2020.06.001

Özkara, A., Lambert, K., Ayhan, B. D. & Erbaş, B. (2020). Effective implementation of unprecedented measures for the protection from COVID-19 syndrome. *Bezmialem Science, 8*(2), 63-66. https://doi.org/10.14235/bas.galenos.2020.5049

Parikh, P. A., Shah, B. V., Phatak, A. G., Vadnekar, A. C., Uttekar, S., Thacker, N., & Nimbalkar, S. M. (2020). COVID-19 pandemic: Knowledge and perceptions of the public and healthcare professionals. *Cureus, 12*(5): *e8144*. https://doi.org/10.7759/cureus.8144

Polat, Ö., & Coşkun, F. (2020). Determining the relationship between personal protective equipment uses of medical healthcare workers and depression, anxiety and stress levels in the COVID-19 pandemic*. Medical Journal of Western Black Sea, 4*(2), 51-58. https://doi.org/10.29058/mjwbs.2020.2

Qi, B., Peng, H., Shou, K., Pan, Z., Zhou, M., Li, R., Deng, L., Shen, J., Rao, X., & Yu, A. (2020). Protecting healthcare professionals during the COVID-19 pandemic. *BioMed research international, 2020*, 8469560. https://doi.org/10.1155/2020/8469560

Teslya, A., Pham, T. M., Godijk, N. G., Kretzschmar, M. E., BooPHCa, M. C. J., & Rozhnova, G. (2020). Impact of self-imposed prevention measures and short-term government-imposed social distancing on mitigating and delaying a COVID-19 epidemic: A modelling study. *Plos Medicine, 17*(7), 1-21. https://doi.org/10.1371/journal.pmed.1003166

Türk A. (2020). An evaluation on the practices for the elderly and the psycho-social situation of the elderly during the coronavirus (COVID-19) pandemic process. *Sosyal Hizmet Dergisi, 2,* 35-46.

Uğurlu, Y. K., Durgun, H., Nemutlu, E., & Kurd, O. (2020). Assessment of individuals' knowledge and attitude of social hand washing during COVID-19 pandemic: The case of Turkey. *Journal of Contemporary Medicine. 10*(4), 617-624. https://doi.org/10.16899/jcm.745349

Vindrola-Padros, C., Andrews, L., Dowrick, A., Djellouli, N., Fillmore, H., Bautista Gonzalez, E., Javadi, D., Lewis-Jackson, S., Manby, L., Mitchinson, L., Mulcahy Symmons, S., Martin, S., Regenold, N., Robinson, H., Sumray, K., Singleton, G., Syversen, A., Vanderslott, S., & Johnson, G. (2020). Perceptions and experiences of healthcare workers during the COVID-19 pandemic in the UK. *BMJ Open, 10*(11*), e040503.* https://doi.org/10.1136/bmjopen-2020-040503

Wilder-Smith, A., & Freedman, D. O. (2020). Isolation, quarantine, social distancing and community containment: pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak. *Journal of Travel Medicine, 27*, 1-4. https://doi.org/10.1093/jtm/taaa020

World Health Organization (2020, February 15). *Corona virus disease (COVID-19) advice for the public: When and how to use masks*. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-forpublic/when-and-how-to-use-masks

Yazıcıoğlu, Y., & Erdoğan, S. (2014). *SPSS applied scientific research methods*. Detay Publishing.

Yürük, B. E., & Çelik, H. (2020). COVID-19 the role of nursing in the struggle against outbreaks. *Türkiye Klinikleri Journal of Nursing Science, 12,* 300-304. https://doi.org/10.5336/nurses.2020-75315