



## THE RELATIONSHIP BETWEEN SOCIODEMOGRAPHIC CHARACTERISTICS OF PATIENTS APPLYING TO AN INTERNAL MEDICINE OUTPATIENT CLINIC AND SOURCES OF INFORMATION ABOUT THE Covid-19 PANDEMIC

BİR İÇ HASTALIKLARI POLİKLİNİĞİNE MÜRACAAT EDEN HASTALARIN SOSYO-DEMOGRAFİK ÖZELLİKLERİ İLE COVID-19 PANDEMİSİ HAKKINDA BİLGİ EDİNME KAYNAKLARI ARASINDAKİ İLİŞKİ

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### ABSTRACT

**Background:** This study aimed to investigate the sources of information about the Covid-19 pandemic of people who applied to an internal medicine outpatient clinic.

**Methods:** A sociodemographic data form and a questionnaire revealing the sources of information about the Covid-19 epidemic were applied to patients after verbal and written consents, using a face-to-face interview technique. The Pearson's Chi-Square test was used for data analysis.

**Results:** Of the participants, 121 (48.2%) were men, and 130 (51.8%) were women. The mean age was  $47.40 \pm 18.06$  (youngest 18, oldest 89) years. Most of the participants were married (73.3%) and secondary education (47.6%) graduates. A history of chronic diseases was detected in 63 (25.1%) people. Most of the participants stated that they had obtained information from the press (42.2%).

**Conclusion:** The most common source of information about the Covid-19 pandemic was determined as media organizations (42.3%). The selection of information sources is important in informing the public about the pandemic..

**Anahtar Kelimeler:** Covid-19, Pandemic, Social media

### ÖZET

**Giriş:** Bu çalışmada, bir iç hastalıkları polikliniğine başvuran kişilerin Covid 19 pandemisi hakkında bilgi edinme kaynaklarının araştırılması amaçlanmıştır.

**Yöntem:** Tanımlayıcı kesitsel tasarımdaki bu çalışma 8 Mart - 30 Haziran 2021 tarihleri arasında Karşıyaka özel Metropol Tıp Merkezi iç hastalıkları polikliniğinde yürütülmüştür. Sözel ve yazılı onamları alınan kişilere; sosyo-demografik veriler ile covid-19 salgınına karşı hangi kaynaklardan bilgi edindiklerini ortaya koyan anket formu yüz yüze görüşme tekniği ile uygulandı. Frekans analizleri ve verilerin analizinde Pearson Ki-Kare testi kullanılmıştır.

**Bulgular:** Katılımcıların 121'i (%48,2) erkek, 130'u (%51,8) kadındı. Yaş ortalaması  $47,40 \pm 18,06$  (en küçük 18, en büyük 89) yıl idi. Katılımcıların çoğunluğu evli (%73,3) ve ortaöğretim (%47,6) mezunuydu. Kronik hastalık öyküsü 63 (%25,1) kişide saptandı. Katılımcıların çoğunlu basın yayın kuruluşlarından (%42,2) bilgi edindiklerini belirtmiştir.

**Sonuç:** Çalışmada Covid-19 pandemisi hakkında en yaygın bilgi edinme kaynağı basın yayın kuruluşu (%42,3) olarak saptandı. Topluma yönelik pandemi hakkında bilgilendirme yapılacaksa bilgilendirme kaynaklarının seçimi verilecek mesajın yararlı olabilmesi ve amacına ulaşmasında faydalı olacaktır.

**Anahtar kelimeler:** Covid-19, Pandemi, Sosyal Medya

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## INTRODUCTION

### Background/Rationale

In December 2019, the pneumonia epidemic caused by a new coronavirus in Wuhan, in the Hubei province of the people's Republic of China, could not be controlled. It soon spread to other areas of China and led to a pandemic, first in Europe and then in North America and all over the world (Wang et al., 2020). The first Covid-19 case in Turkey was detected on 11 March 2020. Like other epidemics, it has universally affected the lifestyle of societies and the social and economic order of the world (Budak and Korkmaz, 2020). With the Covid-19 pandemic, a lot of false information was produced and shared on social media. The fear, panic, and uncertainty created by the epidemic led most people to share the information obtained from social networks without questioning and verification. In the end, this situation attracted the attention of the World Health Organization, and the information pollution that emerged on social media regarding the epidemic was expressed with the term "infodemic" (Aydın, 2020). In today's communication and information age, with the development of modern technological communication tools, people's resources are not limited to the information provided by the state. There is an intense flow of information in the globalizing world. Because there is a danger of disinformation and manipulation in the global world order, in today's world, where knowledge is power and people who have knowledge dominate, there is a greater need for real and unbiased information (Aydın, 2020; Kiraz, 2019).

### Objectives

This study aimed to investigate the sources of information about the Covid-19 pandemic of people who applied to an internal medicine outpatient clinic.

## METHODS

### Study Design

A descriptive-cross-sectional study was planned. All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. Informed verbal consent was obtained from the patients who volunteered to participate in the study, explaining the purpose of the study and the confidentiality of the data obtained. Study reporting was done per the STROBE guide (Von Elm et al., 2007).

### Setting

This research was carried out between 8 March – 30 June 2021 in Karşıyaka Private Metropol Medical Center's internal medicine outpatient clinic. In the study health center, there is an internal medicine outpatient clinic without inpatient services. Approximately 80 outpatients are served daily.

### Participants

This research was conducted on 4200 people who applied to the internal medicine outpatient clinic on the specified dates. Every day, 4-5 patients waiting in line at the outpatient clinic during the lunch break were invited to participate in the study. Patients between 18 and 90 years of age, who could communicate were invited to participate in the research. Data were collected from 253 individuals who agreed to participate in the study, and the results for 251 were analyzed (Figure 1).

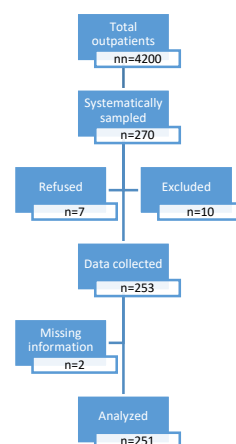


Figure 1: Participant Flow Diagram

**Sample Size**

The sample calculation was based on the variable “source of information” (health worker/other). In a post hoc calculation, it was found that a sample of 196 patients is required to determine an expected frequency of 50% with a 95% confidence interval and a 7% margin of error in a population of unknown size (Lentgh, 2009).

**Variables**

Sources of information about Covid-19 (health care worker, pharmacist, social media, media outlets, and close environment) was the main outcome measure of the research. Other variables examined included age category, gender, marital status, educational status, and the presence of chronic diseases. Data on demographic variables were collected by the face-to-face interview technique using a questionnaire.

**Bias**

Brief information about the research was included in the questionnaire to ensure that the research data were obtained correctly, and the identities of the participants were not written on the patient identification form. To avoid bias, error checking and debugging were done after the data was entered into the computer.

**Statistical Methods**

The data were analyzed by entering into the Statistical package for social sciences (SPSS) package program (IBM, Chicago, IL, USA). Results were presented as numbers, percentages, means, and standard deviations. The Pearson Chi-square test was used for the comparison of categorical variables. The statistical significance level was accepted as  $p < 0.05$ .

**RESULTS**

The mean age of the 251 participants was  $47.40 \pm 18.06$  (the youngest 18, the oldest 89) years. Of the participants, 121 (48.2%) were male, and 184 (73.3%) were married. Of the participants, 119 (47.4%) were secondary school graduates, 82 (32.7%) were high school graduates, and 50 (19.9%) were university graduates. A presence of chronic diseases was found in 63 (25.1%) individuals (Table 1).

**Table 1.** Sociodemographic characteristics of the participants

Age		(n=251)	%
<b>Sex</b>	Female	130	51.8
	Male	121	48.2
<b>Educational status</b>	Middle school	119	47.4
	Highschool	82	32.7
	University	50	19.9
<b>Marital status</b>	Single	67	26.7
	Married	184	73.3
<b>Chronic diseases</b>	Present	188	74.9
	Absent	63	25.1

Of the participants, 59 (23.5%) received their information from health care workers, 16 (6.4%) from pharmacists, 58 (23.1%) from social media, 106 (42.2%) from press organizations, and 12 (4.8%) stated that they got information about the Covid-19 from their immediate environment. Fifty-one (42.1%) men and 55 (42.3%) women indicated that they obtained information from the media ( $p=0.34$ ). Of the singles, 26 (38.8%) stated that they got information from social media, while 83 (45.1%) of the married people stated that they got information from the media ( $p=0.001$ ). Also, a statistically significant difference was found between educational status and sources of information about Covid-19 disease ( $p=0.01$ ). Thirty-five (55.6%) of those with a history of chronic disease and 71 (37.8%) of those without a history of chronic disease stated that they had obtained information from the media ( $p<0.001$ ) (Table 2).

**Table 2.** Participants' sources of information

		Health employee		Pharmacist		Social media		Press		Close environm.		p
		n	%	n	%	n	%	n	%	n	%	
<b>Sex</b>	Female	33	25.40	11	8.50	27	20.80	55	42.30	4	3.10	0.34
	Male	26	21.50	5	4.10	31	25.60	51	42.10	8	6.60	
<b>Educational status</b>	Middle sch.	24	20.20	11	9.20	17	14.30	59	49.60	8	6.70	0.01
	Highschool	18	22.00	4	4.90	28	34.10	29	35.40	3	3.70	
	University	17	34.00	1	2.00	13	26.00	18	36.00	1	2.00	
<b>Marital status</b>	Single	8	11.90	7	10.40	26	38.80	23	34.30	3	4.50	<0.001
	Married	51	27.70	9	4.90	32	17.40	83	45.10	9	4.90	
<b>Chronic diseases</b>	Absent	53	28.20	7	3.70	50	26.60	71	37.80	7	3.70	<0.001
	Present	6	9.50	9	14.30	8	12.70	35	55.60	5	7.90	

## DISCUSSION

### Key Findings

The study showed that the majority of the people who applied to the internal medicine outpatient clinic were secondary school graduates and that the most source of information about the Covid-19 disease was the media. Although there was no difference in the sources of information between the genders, it was determined that the higher the education level, the more information people received from health professionals.

### Limitation

Some of the limitations of this study can be stated as follows: First of all, the non-observational data collection method, based on the individual's own statements, is a limitation of survey studies. Secondly, since the data were collected from people who applied to an internal medicine outpatient clinic and the people mostly resided in the same district, it is difficult to generalize the findings to other populations. On the other hand, a control group selected from the general population or individuals applying to another clinic would have given the opportunity to compare the findings.

### Interpretation

Pandemics have deeply affected nations throughout history, causing significant damage, not only in terms of health but also negatively influencing economic and social activities (Hayır and Görgülü, 2020; Yiğit and Gümüşçü, 2016). Similar to the pandemics known in history, the Covid-19 pandemic has dramatically affected the lifestyle of societies and the social and influenced the economic order of the world (Zhu et al., 2020). As of 10 March 2020, the first case was detected in Turkey, education was suspended, and a long-term curfew was imposed on people over the age of 65 and under 20. In this process, individuals who stayed at home followed the Covid-19 pandemic from various media and tried to act according to the information they received from these sources (Hayır and Görgülü, 2020).

The least source of information about the Covid-19 pandemic of the participants was determined to be their immediate surroundings. The World Health Organization (WHO) defined health literacy (HL) as the cognitive-social skills and motivation levels of individuals to access, understand, and use the information to protect and improve their health (Akbal and Gökler, 2020; WHO, 2013). The term HL was first used in the article "Health Education as Social Policy" written by Simonds (Ratzan, 2001) in 1974. In a study conducted by the Ministry of Health in Turkey, the level of HL was demonstrated on a national scale. It was determined that 30.9% of the population had inadequate HL (Retrieved from <https://dosyamerkez.saglik.gov.tr>). In the same study, the rate of obtaining information from media sources was found as (42.2%). The rapid transformation of the Covid-19 disease into a pandemic forced people to learn about the new virus and quickly change their practices and behaviors (Abel and McQueen, 2020; Akbal and Gökler, 2020). In this process, there has been both a pandemic and an infodemic. Worldwide, information about Covid-19 has increased rapidly. This information includes unscientific

false information that triggers public concern and bears substantial threats to public health. This “global misinformation epidemic” is spreading rapidly, mainly through social media platforms and other publications (Abel and McQuen, 2020; Akbal and Gökler, 2020).

The media has a great influence on perception and orientation. However, media perception and use of media tools may differ from individual to individual. Perceptions created by techniques such as language, expressions, sounds, and visual elements used in media tools are different. Different perceptions may differ according to variables such as age, gender, occupation, and city of accommodation. These perceptions lead individuals to choose various media tools (Hügül, 2011). Studies in the literature on the use of social media between women and men have also reported that women are less involved in social media platforms than men (Hayır and Görgülü, 2020; Şener, 2009). In the study, 20.8% of women and 25.6% of men stated the source of information about Covid-19 as social media. Also, the majority of married people indicated that they obtained information from the media, and the majority of the singles from social media. In the same study, 45.1% of the married stated that they received information from the media, while 38.8% of the singles obtained information from social media. It has been noted that the commonest information sources of secondary education, high school, and university graduates are the media organizations (Hayır and Görgülü, 2020). In our study, similar to the literature, 49.6% of the secondary school graduates stated that they obtained information from the media, while 36.0% of the university graduates indicated that they got information from the press. Contrary to popular belief, the fact that people with chronic diseases receive less information from health care professionals can be attributed to the fact that these patients leave home less frequently because of they were concerned about catching the Covid-19 virus. As is known, the presence of chronic disease is an important risk factor for Covid-19 mortality (Retrieved from <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>; Graselli et al., 2020; Guan et al., 2020).

## **CONCLUSION**

In this study, it was seen that the majority of the participants preferred the media to obtain information about the Covid-19 pandemic. It was determined that health workers were not included in a high rate among the resources of the community to get information. This may be attributed to the increased workload of healthcare professionals. In order to inform the public about the pandemic, media organizations should receive counseling from health professionals, which can reduce information pollution. Additionally, training for society should be planned in order to increase the level of HL.

## **Ethical Declarations**

Ethics Committee Approval

The study was carried out with the permission of Tepecik Training and Research Hospital, Non-invasive Clinical Ethics Committee (Date: 25.01.2021, Decision No: 2021/01-52).

## **Informed Consent**

Because the study was designed retrospectively, no written informed consent form obtained from patients.

## **Reviewer Evaluation Process**

Externally peer-reviewed. This work was not funded by any organization.

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This article was not presented as a paper or published in another journal and congress.

## **Conflict Interest Statement**

The authors have no conflicts of interest to declare.

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## **Authors Contributions**

Execution, metot and analysis of the paper were carried out by DA. Discussion, conclusion and the final version were carried out by VB.

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