



# Patients Empathy to Physicians and Patients Perception of Physicians Empathy During the Covid-19 Pandemic

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## ABSTRACT

### Objective

Physicians have a heavy workload due to their mental and physical efforts. Physicians want to be understood for coping with the stressful working conditions. In this study, the aim was to analyze patients' empathy levels to physicians, patients' perceptions of physician empathy levels especially during a crisis like a pandemic.

### Materials and Methods

The empathy levels of the patients (n=396, >18 ages) to physicians who had visited Ondokuz Mayıs University Faculty of Medicine Hospital non-emergency outpatient clinics were investigated. The same patients' perception of the physicians empathy toward them was also assessed by 'The Jefferson Scale of Patient Perceptions of Physician Empathy', a 7-point Likert-type scale. These patients' data of having/not having chronic illness and their health institution visits were evaluated. The patients characteristics compared statistically with their patients' perceptions of physician empathy levels.

### Results

The empathy levels of the patients to their physicians was high. Patients' perceptions of physician empathy toward them was also found as 5.14. The patients who did not wait for a visit to a health institution when needed during the pandemic (76.8%) have significantly high patients' perceptions of physician empathy (p<0,05).

### Conclusions

Empathy which is an important communication skill in order to cope with critical conditions should be mutual and trust is the most important issue for constructing empathy. The volunteer patients showed trust to their physicians by visiting the hospital which infected patients also visit. The patients with high empathy levels to their physicians also had high patients perception of physician empathy levels.

### Keywords

Empathy, Patients, Physicians, Covid-19, Crisis

## Covid-19 Pandemisinde Hastaların Hekimlere Karşı Empatisi ve Hastaların Hekim Kaynaklı Empati Algısı

### ÖZET

#### Amaç

Hekimlerin hem zihinsel hem de fiziksel çabaları nedeniyle ağır bir iş yükü vardır. Hekimler, stresli çalışma koşullarıyla baş edebilmek için anlaşılacak istemektedirler. Bu çalışmada özellikle pandemi gibi bir kriz durumunda, hastaların hekimlerine karşı empati düzeyleri ve hastaların hekim kaynaklı empatiyi algı düzeylerinin araştırılması amaçlandı.

#### Materyal ve Metod

Ondokuz Mayıs Üniversitesi Tıp Fakültesi Hastanesi acil dışı polikliniklerine ayaktan başvuran hastaların (n=396, >18 yaş) hekimlerine karşı empati düzeyleri tespit edildi. Aynı hastaların hekim kaynaklı empatiyi algıları da 7'li Likert tipi bir ölçek olan 'The Jefferson Scale of Patient Perceptions of Physician Empathy' ile değerlendirildi. Bu hastaların kronik bir hastalığının olup olmadığı ve sağlık kurumu ziyaretleri araştırıldı. Hastaların mevcut özellikleriyle hekim kaynaklı empatiyi algı düzeyleri istatistiksel olarak karşılaştırıldı.

#### Bulgular

Hastaların hekimlerine karşı empati düzeylerinin yüksek olduğu saptandı. Hastaların hekim kaynaklı empatiyi algı puanlarının da 5,14 olduğu tespit edildi. Pandemi sırasında gerektiğinde bir sağlık kuruluşunu ziyaret etmek için beklemeyen hastaların (%76,8), hekim kaynaklı empatiyi algı düzeyinin yüksek olduğu saptandı (p<0,05).

#### Sonuç

Kritik durumlarda baş edebilmek için önemli bir iletişim becerisi olan empati, karşılıklı olmalıdır ve empati kurmak için en önemli konu güvendir. Çalışmaya katılan gönüllü hastalar, enfekte hastaların da ziyaret ettiği hastaneyi ziyaret ederek hekimlerine olan güvenlerini göstermektedir.

Hekimlerine karşı empati düzeyi yüksek hastaların hekim kaynaklı empati algısının da yüksek olduğu saptanmıştır.

#### Anahtar Kelimeler

Empati, Hastalar, Hekimler, Covid-19, Kriz

### INTRODUCTION

A coronavirus (SARS-CoV-2, Covid-19) which can cause severe acute respiratory syndrome affect whole world (WHO, 2020). Physicians have a sense of responsibility and they serve great effort to prevent the virus from spreading (Barello et al., 2020). However, due to the high risk of contracting the virus, physicians have a fear for themselves and for their family members (Urooj et al., 2020). This viral infection caused a crisis affecting the mental health of healthcare professionals (Pappa et al., 2020). Because of the empathy humanises the relationship between the patients and the physicians, empathy can facilitate coping with this critic disease (King et al., 2016; Eby, 2018; Barello and Graffigna, 2020). Empathy is the ability to understand another person's personal experience. Empathy does not only include emotional and cognitive properties but this ability must also have a reflected behavioral feature to the communicated person (Moudatsou et al., 2020). As every human being, patients want to be understood and be respected by the physicians during the medical care (Eby, 2018). Physicians also have the same expectations because of the great burden of responsibility they have to face with, especially during a crisis like the pandemic that can affect their mental health (King et al, 2016; Barello et al., 2020; Pappa et al. 2020). The aim of the study was to investigate the empathy levels of the patients to physicians and the physicians empathy perceived by these patients, also compare the patients characteristics with their patients' perceptions of physician empathy results.

### MATERIAL METHOD

The approval of the study was obtained from Ondokuz Mayıs University (OMUKAEK No: 2020/555). Ministry of Health of

Turkiye (Form: 2020-08-18T06\_18\_14) and Provincial Health Directorate (No: 26521195-604.02) also approved the study.

G\*Power 3.1.9.7 Statistical Power Analysis for windows was used to estimate the sample size. Sample size was calculated to provide a power = 95 % (type II error) and a level of significance at  $\leq 2$  % (type I error). The effect size was assumed to be large. Therefore, this cross-sectional study was designed for at least 112 patients (Ölmez, 2019). The data collection was provided through 'Google Forms' in which the names of the patients were not visible. The research conducted between the dates 21.10.2020 and 21.06.2021.

The patients (n=396, >18 ages) who had visited different non-emergency outpatient clinics in Ondokuz Mayıs University Faculty of Medicine Hospital were randomly selected and they were asked to complete the survey voluntarily. These patients were guaranteed complete confidentiality (World Medical Association Declaration of Helsinki, 2017).

The 'Google Forms' created for collecting the data of gender, having/not having chronic illness, status of waiting/not waiting for a visit to a health institution when needed during the pandemic, visited/not visited their family physician during the pandemic, the empathy status of the patients to physicians and the patients' perception of the physicians empathy toward them. "The Jefferson Scale of Patient Perceptions of Physician Empathy" (JSPPE) was used for defining physicians' empathy (Yıldız, 2019). JSPPE was initially developed as a 5-point Likert-type scale by Kane et al. (Kane et al., 2007). The scale later became a 7-point Likert-type scale. One point indicates that the patient strongly disagrees with the opinion, 4 points indicate that the patient is undecided and 7 points strongly agree (Yıldız, 2019).

Data were analyzed using SPSS statistical software package program (version 22.0; SPSS). The empathy status of the patients to physicians were evaluated using numbers and

percentages (Table 1). According to the results of the normality test, since the skewness and kurtosis values of the scale were between +1 and -1, and the data showed a normal distribution, parametric tests were used for determining JSPPE levels (Table 2). The Cronbach's Alpha value is 0.881 which provided the scale's reliability for this study. According to the validity analysis, the Kaiser-Meyer-Olkin (KMO) value is 0.920 and the study is suitable for factor analysis. JSPPE scale expression means were also analyzed (Table 3). The patients characteristics and their JSPPE results were compared by Independent T test Analysis (Table 4). Type 1 error was accepted as  $p < 0,05$ .

## RESULTS

**Table 1.** The empathy status of the patients to physicians.

	Variables	Number(n)	Percent(%)
Due to the high risk of transmission of Covid-19, I understand my physicians' fears for their health	a	360	90.9
	b	7	1.8
	c	29	7.3
Due to the high risk of transmission of Covid-19, I understand my physicians' fears for their family's health	a	376	94.9
	b	4	1.0
	c	16	4.0
Mainly due to the Covid-19 pandemic, I understand my physicians' struggle during the diagnosis and the treatment process	a	378	95.5
	b	5	1.3
	c	13	3.3
Due to the personal protective equipment (mask/masks/ visor, etc.) I am aware of the physical difficulties of my physician	a	383	96.7
	b	4	1.0
	c	9	2.3
Since I am aware of my physicians' struggles, I listen to them carefully and understand what I have to do during the diagnosis and the treatment processes	a	387	97.7
	b	2	0.5
	c	7	1.8

a: I agree

b: I disagree

c: I partially agree

**Table 2.** The mean, the range and the normality test results of the JSPPPE.

<b>N</b>	396
<b>Mean</b>	5.14
<b>Min.</b>	1.20
<b>Max.</b>	7.00
<b>Variance</b>	1.58
<b>Skewness</b>	-0.621
<b>Kurtozis</b>	-0.90

The item of the JSPPPE which the patients gave the highest score is “item 6: during the Covid-19 pandemic, my physician obeys the necessary privacy rules when examining me or talking to me” and the item which the patients gave the least score is “item 7: during the Covid-19 pandemic, my physician is always in a hurry” (Table 3).

**Table 3.** The ranges, the means and the standard deviations of the scale expressions of JSPPPE.

<i>Scale Expressions</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
<i>1- During the Covid-19 pandemic, my physician has a perspective as I have</i>	1.00	7.00	5.25	1.676
<i>2- During the Covid-19 pandemic, my physician asks about my daily life</i>	1.00	7.00	5.12	1.943
<i>3- I feel like my physician is taking care of me during the Covid-19 pandemic</i>	1.00	7.00	5.37	1.789
<i>4- During the Covid-19 pandemic, my physician looks concerned about me, understands my emotions and fears</i>	1.00	7.00	5.43	1.698
<i>5- During the Covid-19 pandemic, my physician concerns about my physical discomfort, also about my feelings and my needs</i>	1.00	7.00	4.76	1.965
<i>6- During the Covid-19 pandemic, my physician obeys the necessary privacy rules when examining me or talking to me</i>	1.00	7.00	6.09	1.313
<i>7- During the Covid-19 pandemic, my physician is always in a hurry</i>	1.00	7.00	3.93	2.143
<i>8- During the Covid-19 pandemic, my physician asks me how I feel about my problems</i>	1.00	7.00	5.21	1.909
<i>9- During the Covid-19 pandemic, my physician thinks of my wishes when making decisions</i>	1.00	7.00	5.03	1.583
<i>10- During the Covid-19 pandemic, my physician evaluates events through my eyes</i>	1.00	7.00	5.22	1.731

56.6% of the volunteer patients participating in the study were women. 87.9% of them indicated that they do not have any chronic illness. 76.8% of them did not wait for a visit to a health institution during the Covid-19 pandemic. 71.5% of them indicated that they did not visit their family physicians during the pandemic (Table 4).

**Table 4.** The comparison of descriptive features of the study participants and the JSPPES results of these patients (Independent Sample T-Test Analysis, SPSS).

	Variables	Number (n)	JSPPES
<b>Gender</b>	Male	172	5.19 ± 1.20
	Woman	224	5.10 ± 1.30
	<b>P</b>		<b>.500</b>
<b>Do you have any chronic illness?</b>	Yes	48	5.06 ± 1.27
	No	348	5.15 ± 1.26
	<b>P</b>		<b>.634</b>
<b>Did you wait for a visit to a health institution during the Covid-19 pandemic?</b>	Yes	92	4.80 ± 1.31
	No	304	5.24 ± 1.22
	<b>P</b>		<b>.003</b>
<b>Did you visit your family physician during the Covid-19 pandemic?</b>	Yes	113	5.26 ± 1.13
	No	283	5.09 ± 1.30
	<b>P</b>		<b>.209</b>

## DISCUSSION

The physicians, as other healthcare workers, are expected to demonstrate empathy (Singh, 2017). However, there are mutual expectations during social relationships; empathy, support, respect and trust (Çicekci et al. 2017). Healthcare professionals are frontline workers of the pandemic (Galbraith et al., 2020). Although the Covid-19 pandemic affects whole populations, one of the most vulnerable group is healthcare workers due to the risks of infection (Pappa et al. 2020; Montemurro, 2020). This is especially important because this undesirable risk damage healthcare workers' mental health (Viswanathan et al., 2020). Studies have shown increased rates of healthcare workers who suffered from burnout, depression, anxiety and sleep disturbances (Pappa et al. 2020; Galbraith et al., 2020; Que et al., 2020; Correia and Almeida, 2020; Banerjee et al., 2020). However, as other healthcare workers physicians serve their patients with great effort (Viswanathan et al., 2020). Therefore, all

healthcare professionals need to be supported, just like their patients (The Lancet Psychiatry, 2020).

Trust in healthcare providers and sharing their perspectives for building empathy can help healthcare professionals to focus on stressful events like a pandemic (Barello and Graffigna, 2020). However, rude behavior of the patient and in return arrogant behavior of the physician, have an undesirable effect on the physician-patient relationship. The undesirable result would be the decreased healing capability of the physician (Singh, 2017).

There is a relationship between physician empathy and patient trust (Mei et al., 2020; Wu et al., 2021). The patients (76.8%) who did not wait for a visit to health institution when needed during the Covid-19 pandemic have statistically high patients' perception of the physicians empathy (p<0,05). The current study shows that the patients who did not wait for a visit to a health institution during Covid-19 pandemic trust their physicians.

The nonverbal manner of empathy encourages trust between healthcare workers and patients. Some of the nonverbal empathy behaviors are universal and the effect is obvious on patient satisfaction. Patients observe expressions, information exchange, affective tone of the physicians during clinical visits (Lorié et al., 2017). The brain regions which have function in controlling motor behavior and social interaction has common or associated areas (Wolpert et al., 2003). The human mirror neuron system take parts of the inferior frontal cortex and the posterior parietal cortex (Koski et al., 2003). Activation of these mirror neurons are associated with motor cognition but also with interpersonal cognition (Gallese et al., 2004; Schulte-Ru ther et al., 2007). Motor plans (Iacoboni et al., 2005) or emotions (Carr et al., 2003) recruit the activation of the inferior frontal cortex; probably the mirror neurons (Schulte-Ru ther et al., 2007). The mirror neurons activity provides empathic abilities during passive viewing of another person (Schulte-Ru ther et al., 2007). Empathy affects the quality of communication which healthcare workers are trying to

provide (Lorié et al., 2017). Winning patients' trust gives physicians the opportunity to achieve accurate and reliable information for medical treatment (Hagerty and Partusky, 2003; Boysen et al., 2017). The pandemic is a critic condition that the population has to face and trust would be the most effective sense in the physician-patient relationship for overcoming the critic conditions (Roubillea et al., 2020).

The current study is conducted during the ongoing pandemic between the dates 21.10.2020 and 21.06.2021. 71.5% of the patients declared that they didn't visit their family physician since the beginning of the pandemic. According to the Ministry of Health data, the number of visits to primary care institutions per person per year is 3.5 for 2019, for 2020 it is 3.0, and for 2021 it is 2,9 (Republic of Türkiye Ministry of Health, Health Statistics Yearbook 2019; 2020; 2021). Trust in primary healthcare requires being interested in the patient's medical situation and other possible issues. The patient's expectation is also important when developing a sense of trust in the institution (Redsell et al., 2007; Abrahamsson et al., 2015; Boysen et al., 2017). Probably, the volunteer patients trust their family physicians for medical care but maybe they were not feeling that the institution had enough equipment to reduce Covid-19 which is an unusual infection not only effecting the respiratory system.

### Conclusions and Limitations

The high empathy levels of the volunteer patients allowed them to perceive the high empathy levels of their physicians. However, due to the heavy workload of the physicians, they cannot participate such a study in which they can evaluate patients empathy.

### Author Contributions

The authors made significant contributions to this research, as indicated in the order.

Plan, design: Acar MD, Samancı M, Yardan Dikmetaş E.

Material, methods and data collection: Acar MD, Samancı M.

Data analysis and comments: Acar MD, Samancı M, Yardan Dikmetaş E.

Writing and corrections: Acar MD.

### Conflict of Interest

The authors declare that there is no conflict of interest.

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