Rashomon Effect of the COVID-19 Pandemic on Doctor-Patient Communication in Emergency Departments

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ABSTRACT

Objective: The new coronavirus pandemic and the medical difficulties it brings with it also complicates the management of patients in emergency departments due to the limitations it creates in doctor-patient communication.

Methods: This study consists of the patients who applied to the Emergency COVID-19 outpatient clinic of Manisa Merkezefendi State Hospital between 15 March 2022 and 15 July 2022 with symptoms such as fever, sore throat, shortness of breath and diarrhea, and the discussions between the doctors who provide care for these patients

Results: The mean age of the physicians participating in the study is 39.42 ± 9.7 years, 33 (50%) are male. The mean age of the patients constituting the study's target population is between 42.83 ± 15.75 years, and 34 (51.5%) are male. There was a statistically significant difference between the groups for the answers given to the questions 'Inability to understand what was said due to the mask' and 'The use of masks limiting facial expression' (p < 0.05).

Discussion: Pandemic and the limited pathological communication obligation create a constant perception of justification for the events.

Conclusion: The pandemic might form an unhealthy sense of entitlement in doctor-patient communication due to the Rashomon effect.

KEY WORDS

communication, COVID-19, emergency department, mask, rashomon effect

INTRODUCTION

In addition to medical knowledge, accurate and understandable doctor-patient communication skills are required in order to provide health services effectively. Starting from triage, there is communication in every effort made until reaching the clinician in the relevant care unit. Any deficiency in these multiple communication steps will break the chain that makes up the system and create disruptions in patients' access to health care.

The necessity of rapid mutual agreement created by the nature of emergency departments reduces doctor-patient communication to short periods, and this acceleration may reduce the quality of communication. This situation can make the sides that we can separate as a doctor-patient open for discussion. The only way to establish a relationship of trust between the parties is through successful communication techniques. The treatment incompatibility of a patient who does not trust his doctor will increase, and the complaints of this patient, who has become a difficult person to convince, will not go away even if on-site treatments are given².

Communication between people has been seriously damaged due to the new coronavirus (COVID-19) pandemic³⁾. Due to factors such as social distance, the necessity of using a mask, isolation requirements caused by transmission concerns, curfew, and distance education, both the content and the number of face-to-face dialogues that need to be established have decreased³⁾. This situation has caused misunderstandings and discussions⁴⁾. The mask hides facial expressions on the face and limits voice communication. The social isolation of a person expressing themselves through the triangle of body language, facial expressions, and verbal communication has destroyed the clarity of dialogues that should be established face-to-face since the means of remote communication that it replaces are not enough for a satisfactory understanding⁴⁾.

This process has produced its pathology within itself and has created masses of people who cannot communicate with each other⁵. It is at this point that the Rashomon effect is observed. The Rashomon effect is defined as the different perceptions that people show toward the facts. Communication barriers brought about by the pandemic have prevented the correct functioning of the perception of reality in humans. Based on this effect, it can be likened to Albert Einstein's theory of relativity. In

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Table 1: Questionnaire Form

	Very little effective	Little effective	No effect	Effective	Very effective
Not understanding what is being said because of the mask					
Short duration of communication due to transmission concerns/social distancing					
The use of masks limits the expression on the face					
Anti-infection virus protection panel followed by communication					
Thinking that they are trying to communicate without adequate precautions (mask, vacci-					
nation, distance, non-compliance with hygiene rules)					

Do you think there could be a reason other than these items?

Table 2: Gender ratios and average age distribution of cases by groups

		Patient		Physician		Total		W2	ъ.
		N	%	N	%	N	%	X2	P
Sex	Male	34	51.5	33	50	67	50.8	0.030	0.862
	Female	32	48.5	33	50	65	49.2		
		Averag	Average. ± SS		Average. ± SS		e. ± SS		
Age		$42,83 \pm 15,75$		39,42	$39,\!42\pm9,\!7$		$41,13 \pm 13,14$		0.262

Pearson Chi-Square, Mann Whitney U analysis

this theory, it is emphasized that distance and time change from person to person⁵. The representative of the same theory in philosophy is Protagoras. Protagoras says that our view of events is subjective; he is talking about the damage that the human mind inflicts on reality. Protagoras, who thinks that the measure of all things is man, emphasizes that there is as much perception of reality as the number of people living on earth⁶.

This relative structure of reality, considering the limited and not always fair distribution of resources due to COVID-19, causes a distorted reality, violence, and chaos in society. The life-threatening COVID-19 virus and the limited pathological communication obligation create a constant perception of justification for the events they experience in people, which creates an environment for the Rashomon effect^{6,7)}.

The only reality is divided into separate realities for each person surrounded by the pandemic. Under these conditions, it will not be difficult to say that doctor-patient communication is more intensively open for discussion than before during the pandemic⁷.

In this study, we planned to examine the communication problems between the doctor and the patient during the COVID-19 pandemic in light of the Rashomon effect.

MATERIALS AND METHODS

The target population of the study consists of the patients who applied to the Emergency COVID-19 outpatient clinic of Manisa Merkezefendi State Hospital between 15 March 2022 and 15 July 2022 with symptoms such as fever, sore throat, shortness of breath, and diarrhea, and doctors who provide care for these patients. Sixty-six doctors and 66 patients were included in the study. A questionnaire form was distributed to the doctors and patients, and data analysis was performed (Table 1). Inclusion criteria for the study were determined as communication problems/discussions between patients who applied to the emergency room with the diagnosis or suspicion of COVID-19 and the doctors caring for these patients. These discussions were determined as the types of doctor-patient communication that were given a white code, in which the hospital police and/or the security officer were involved in the doctor-patient dialogue, SABIM/CIMER (ministry of health remonstrance line) complaints were made or resulted in mutual litigation with paper survey and telephone interview. 76 patients were approached but ten of them were declined to participate. These discussions covered events in which the doctor-patient could not clearly express feelings and thoughts, and therefore a joint decision could not be reached. Those under eighteen, those who did not present to the emergency department with a diagnosis or suspicion of COVID-19, and patients who did not give consent were not included in the study.

Permission was obtained from the Ethics Committee of the Ministry of Health (2021-03-11T01_09_42) and the Ethics Committee of Non-Interventional Clinical Trials of Istanbul Medipol University (E-10840098-772.02-1162) for the study.

Statistical analysis

The data of the research were evaluated through SPSS 23.0 (Statistical Package for Social Sciences) program. In the descriptive findings section, categorical variables are presented with a number, percentage, and continuous variables with mean \pm standard deviation and median (smallest, largest value). Pearson chi-square test and Fisher's exact test were used to comparing categorical variables. The level of statistical significance was determined as $p \leq 0.05$.

RESULTS

The mean age of the physicians participating in the study is 39.42 ± 9.7 years, 33 (50%) are male. The mean age of the patients constituting the study's target population is between 42.83 ± 15.75 years, and 34 (51.5%) are male. When the sex ratios and ages of the cases were examined according to the groups, there was no statistically significant difference between the groups (p > 0.05) (Table 2).

There was a statistically significant difference between the groups for the answers to the questions 'Inability to understand what was said due to the mask' and 'The use of masks limiting facial expression' (p < 0.05) (Table 3).

To the question 'Do you think there may be another reason for the discussions other than these items?' in the questionnaire form, 4 of the patients (6%) stated that the doctor was uninformed, 3 (4%) said that throat examination was not done, 5 (7%) said they were not informed enough about the disease. For the same question, 2 (3%) said that the demands of patients who could easily reach the doctor could not be met, 6 and 9% (9%) stated that the low sociocultural level of the patients caused disagreements.

When the doctor-patient discussion notification methods were examined, the highest rate was police/security intervention (46%), while the least detected notification method was white code (9%) (Figure 1).

DISCUSSION

The COVID-19 pandemic has created an erosion of communication in all social strata that make up society^{8.9}. The communication gaps creat-

Table 3: The average distribution of the answers given by the cases to the questions according to the groups

0 Ineffective / No effect						
1 Very little effective						
2 Little effective	Patient		Physician			
3 Effective						
4 Very effective					Z	p
	Average. \pm SS	Median	Average. \pm SS	Median		
		(MinMax.)		(MinMax.)		
Not understanding what is being said because of	$2,41 \pm 1,23$	3 (0-4)	$2,83 \pm 1,18$	3 (0-4)	-2.132	0.033
the mask						
Short duration of communication due to transmission	$2,85 \pm 1,36$	3 (0-4)	$2,88 \pm 1,32$	3 (0-4)	-0.091	0.927
concerns/social distancing						
The use of masks limits the expression on the face	2,08 ± 1,37	2 (0-4)	2,58 ± 1,25	3 (0-4)	-2.183	0.029
Anti-infection virus protection panel followed by	$2,53 \pm 1,43$	3 (0-4)	$2,56 \pm 1,39$	3 (0-4)	-0.118	0.906
communication						
Thinking that they are trying to communicate without	2,7 ± 1,21	3 (0-4)	2,86 ± 1,29	3 (0-4)	-1.071	0.284
adequate precautions						

Mann Whitney U analysis

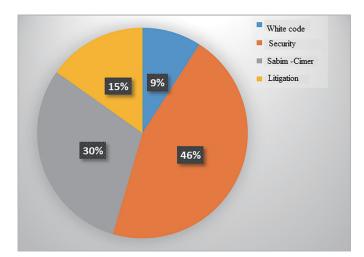


Figure 1: Discussion notification types and rates

ed by this loss have resulted in discussions. The general social climate created by the pandemic can be described as an effort to survive in chaos.

The mandatory use of masks has imposed limitations on mutual communication. The fact that both sides wore masks, we can call this dual masking, caused the speech sounds to become muffled10). In addition, the empathy/understanding that a doctor wearing a mask feels for their patient cannot be understood because the expression on their face cannot be seen by their patient^{11,12}). In this study, a statistically significant difference was found for the doctor group for "not understanding what was said because of the mask," which is one of the questionnaire items in the discussions between the doctor and the patient. (p: 0.033). Because of the mask, the doctors cannot understand what the patients are saying, and the doctor, whose ability to take a health history from the patient, which is the first step of the clinician, is prevented, has been pushed into a relationship that has the potential to argue with his patient. Limited communication data increases the likelihood of misdiagnosis for the doctor, the doctor who does not feel safe in the diagnostic sense requests additional examinations, and the follow-up time of patients in emergency departments may be prolonged. It is easy for these two strangers, who have never known each other before and whose potential for agreement is poor in their short-term relationship, to argue¹²⁾. In this environment of disagreement, the parties will think that injustice has been done to them, and since both sides think that they are right, they will have the potential to create a false reality. Speaking more slowly and loudly during the use of a mask can increase mutual understanding.

In this study, a significant statistical difference was found for "the use of masks to limit the facial expression". In other words, doctors stated that the mask might be responsible for the discussions with their

patients. The middle-lower half of the face, which is closed due to the mask, has reduced mutual communication to eye contact. Although short-term eye contact is necessary for effective communication, prolonging this period has the opposite effect; it can acquire an uncomfortable quality¹³⁾. Facial expressions and mimics play a complementary role in communication between people. The face is divided into three parts: the upper, middle, and lower parts, and the facial expressions of each part contain their own original emotion/expression meaning. For example, laughter (mouth, lips, chin) represents the meaning vectors associated with the lower part of the face and is used extensively in current relationships. Lip shrinkage, narrowing at the edges (horizontal retraction on both lips), expresses anger. The increase in lip opening with the chin tilting downwards emphasizes fear and bewilderment. The nose, which is located in the middle part of the face, is more associated with negative emotions; wrinkling/moving the nose wings downwards creates a hostile, disgusted representation.

In summary, the middle and lower face areas (the parts that are closed as a result of wearing a mask) are complementary communication tools used by the face as well as verbal and body language, and the mask has caused the disappearance of these expressions¹⁴⁾. As a result of covering this area with a mask, communication that is already short due to social distance and contagion concerns can be characterized by negative consequences such as gaps in meaning/disagreement/misunderstanding between the doctor and the patient. This crooked relationship that does not blossom forth will be the reason for both parties to draw their wrong conclusions; reality will be torn apart by conflicts of interest and divided into different false small realities. The problem of not being able to see facial expressions on the face can be overcome by using a transparent/see-through mask to be distributed at the emergency room entrance. In addition, the use of transparent masks also increases the ability to understand each other more effectively in people without impairment in hearing functions4).

Six of the doctors included in the study (9%) stated that the low sociocultural level of the patients caused disagreements. People from all types of society can apply to emergency services. While those with high-level intellectual accumulation can be found among them, some people are in the lower segment socioculturally. The value of verbal communication is significant for the parties to understand each other^{15,16)}. A patient who cannot express themselves at a basal level to be understood will have problems getting/fitting the health care that can be offered to them, even if he is evaluated by a doctor who has a sufficient intellectual perception to understand them. No matter how powerful the doctor's techniques for taking a history are, this skill will be limited by the patient's potential for self-expression. Patients who cannot understandably express their complaints turn into an effort to take a long history and conduct a physical examination for the doctors who care with them. This deficiency is being tried to be solved by keeping empowering examinations such as laboratory/imaging wide. The sum of these variables will inevitably bring disagreements with it.

Doctor-patient discussion notification methods were based on police/security, SABIM-CIMER (ministry of health remonstrance line), 154 Can C. et al.

filing a lawsuit, and white code records. When we look at the rates in this study, the highest notification was generated by police/security (law enforcement forces) intervention (46%). In comparison, the least preferred complaint channel was white code (9%). The reason for choosing law enforcement agencies as the highest form of notification in doctor-patient discussions may be the quick access to these units and easy notification. This type of notification may have been chosen to quickly end the discussion, which is gradually gaining momentum for both sides and has the potential for danger. Since the least preferred white code notification is a type of complaint that can only be made through a doctor's channel, it may be less determined in number than other methods.

The feelings that people feel about the events they experience and the conclusions they draw may differ. The experiences a person has accumulated throughout their life, the education they have received, the sociocultural position in which they are located, and situations such as age determine the shape of their perception doors¹⁷⁻¹⁹. Is it necessary to approach everything with suspicion in this case? Is the life we live a collection of delusions? At this point we encounter the Rashomon effect. The Rashomon effect divides reality into different slices in human minds^{20,21}. The limited resources created by the pandemic, economic problems, uncertainty, and limitations such as social distance and masks destroy the resources necessary for communication. These factors divide lived realities into different perspectives among individuals. Regarding human psychology, two and two do not always make four.

Limitation

There are many limitations to our study. Single-choice questions in the questionnaire limited the variety of answers. The educational status of the patients was not recorded, and the relationship between doctor/patient ages and discussions was not investigated. The fact that the survey participation was based on volunteerism narrowed the study population. Studies with broader participation will increase the richness of meaning.

CONCLUSION

In addition to the medical difficulties that COVID-19 brings with it, it also complicates the management of patients in emergency departments with the limitations it creates in doctor-patient communication. The pandemic can create an unhealthy sense of entitlement in everyone who lives it and tries to manage it due to the Rashomon effect. It should be ensured that practical actions such as the need to wear a mask, the necessity for personal hygiene, and communicating from behind the panel are known by doctors and patients. In this regard, especially media organizations have a significant duty. It should be known that using a mask will interfere with intelligible speech; in cases where dual masking is required, the speech flow should be made as loud and slow as possible. This condition can also solve disputes in elderly patients with hearing impairment. In addition, disabled patients who communicate with sign language will have expression problems due to the mask; they will feel excluded and isolated from society. The use of transparent masks should be increased, it should be borne in mind that such masks minimize the decrease in the quality of communication, as they leave the facial expressions of people exposed. The more effective use of digital hospitals, which are patient care platforms with a virtual environment based on technology, will reduce doctor-patient discussions that can be observed due to masks/distance/hygiene rules.

CONFLICT OF INTEREST

The authors declare that they have no financial or other conflicts of

interest in relation to this research and its publication.

REFERENCES

- Slade D, Chander E, Pun J, Lam M, Matthiessen CMIM, Williams G, et al. Effective healthcare worker-patient communication in Hong Kong accident and emergency departments. HKJEM 2017; 22(2): 69-83.
- Carbon C-C. Wearing Face Masks Strongly Confuses Counterparts in Reading Emotions. Front. Psychol 2020; 11: 566886.
- Anderson R. The Rashomon Effect and Communication. Canadian Journal of Communication 2016; 41: 249-269.
- Fischer, A. H., Gillebaart, M., Rotteveel, M., Becker, D., and Vliek, M. Veiled emotions: the effect of covered faces on emotion perception and attitudes. Soc Psychol Pers Sci 2012; 3(3): 266-273.
- Matthiessen CMIM Applying systemic functional linguistics in healthcare contexts. Text and Talk 2013; 33(4-5): 437-66.
- Leach, A.M., Ammar, N., England, D. N., Remigio, L. M., Kleinberg, B., Verschuere, B. J. (2016). Less is more? Detecting lies in veiled witnesses. Law Hum. Behav 2016; 40(4): 401-410.
- Assogna F, Pontieri FE, Caltagirone C, Spalletta G. The recognition of facial emotion expressions in Parkinson's disease. Eur Neuropsychopharmacol. 2008; 18(11): 835-848.
- Slade D, Chandler E, Pun J, et al. Effective Healthcare Worker-Patient Communication in Hong Kong Accident and Emergency Departments. Hong Kong Journal of Emergency Medicine 2015; 22(2): 69-83.
- Lam M, Webster J. The lexicogrammatical reflection of interpersonal relationship in conversation. Discourse Studies 2009; 11(1): 37-57.
- Walton M, Murray E, Christian MD. Mental health care for medical staff and affiliated healthcare workers during the COVID-19 pandemic Eur Heart J Acute Cardiovasc Care 2020; 9(3): 241-247.
- Fong HJ, Longnecker N. Doctor-Patient Communication: A Review. Ochsner J 2010; 10(1): 38-43.
- Suzuki S. Partner's Accompanying Perinatal Visit as a Risk Factor of Intimate Violence in Japan. International Medical Journal 2022; 29(3): 212-213.
- Hugenberg, K., Sczesny, S. Social categorization moderates the happy face response latency advantage on wonderful women and seeing smiles. Social Cognition 2006; 24(5): 516-539.
- 14. Aliabadi M, Aghamiri ZS, Farhadian M, Motlagh MS, Nahrani MH. The Influence of Face Masks on Verbal Communication in Persian in the Presence of Background Noise in Healthcare Staff. Acoust Aust 2022; 26(50): 1-11.
- JiChoi Y. Acoustical measurements of masks and the effects on the speech intelligibility in university classrooms. Appl. Acoust. 2021; 180: 108145.
- Homans NC, Vroegop JL. Impact of face masks in public spaces during COVID-19
 pandemic on daily life communication of cochlear implant users. Laryngoscope
 Investigative Otolaryngology 2021; 6(3): 531-539.
- Ross LA, Saint-Amour D, Leavitt VM, Javitt DC, Foxe JJ. Do you see what I am saying? Exploring visual enhancement of speech comprehension in noisy environments. Cerebral Cortex 2007: 17(5): 1147-1153.
- Goldin A, Weinstein BE, Shiman N. How do medical masks degrade speech perception? Hearing Review 2020; 27: 8-9.
- Zangmeister CD, Radney JG, Vicenzi EP, et al. Filtration efficiencies of nanoscale aerosol by cloth mask materials used to slow the spread of SARS-CoV-2. ACS Nano. 2020: 14: 9188-9200.
- Chu DK, Akl EA, Duda S, Solo K, Yaacoub S, Schünemann HJ, et al. . Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. Lancet 2020; 395: 1973-87.
- Al-Kadhim AHA, Fatah FA, Malik NA, et al. Attitudes toward COVID-19 Vaccination among Malaysian Residents in the First Half of 2021: An Internet-Based Study. International Medical Journal 2022; 29: 277-281.