

# What happens with the health system: Medical mistrust

*Lo que ocurre con el sistema sanitario: Desconfianza médica*

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## Abstract

**Aim:** This research aims to determine the moderator role of gender in the effect of medical mistrust on the intention to use violence against healthcare professionals. The data in the study were obtained by the survey method.

**Methods:** The obtained data were analyzed with the SPSS program and the process macro software added to the SPSS program.

**Results:** The sample of the study consists of 628 people in total. According to the results of the research, a positive and significant relationship was found between medical mistrust and the intention to use violence on healthcare professionals. Gender has been found to have a moderator role in the effect of medical mistrust on the intention to use violence on healthcare professionals. The effect of medical mistrust on the intention to use violence on healthcare professionals was  $\beta=2,9054$ ;  $t=12.8935$  in individuals whose physicians were female; while in males  $\beta=1.6301$ ;  $t=12.2957$ .

**Conclusion:** Accordingly, when the doctor's gender is female, the effect of medical mistrust on the intention to use violence on healthcare professionals becomes more evident.

**Keywords:** Medical mistrust, healthcare professionals, violence, gender.

## Resumen

**Objetivo:** Esta investigación pretende determinar el papel moderador del género en el efecto de la desconfianza médica sobre la intención de usar la violencia contra los profesionales sanitarios.

**Metodología:** Los datos del estudio se obtuvieron mediante el método de encuesta. Los datos obtenidos se analizaron con el programa SPSS y el software process macro añadido al programa SPSS.

**Results:** La muestra del estudio consta de 628 personas en total. Se encontró una relación positiva y significativa entre la desconfianza médica y la intención de ejercer violencia sobre los profesionales sanitarios. Se ha observado que el género tiene un papel moderador en el efecto de la desconfianza médica sobre la intención de ejercer violencia sobre los profesionales sanitarios. El efecto de la desconfianza médica sobre la intención de ejercer violencia sobre los profesionales sanitarios fue de  $\beta=2,9054$ ;  $t=12,8935$  en los individuos cuyos médicos eran mujeres; mientras que en los hombres fue de  $\beta=1,6301$ ;  $t=12,2957$ .

**Conclusión:** En consecuencia, cuando el género del médico es femenino, el efecto de la desconfianza médica sobre la intención de ejercer violencia sobre los profesionales sanitarios se hace más evidente.

**Palabras clave:** Desconfianza médica, profesionales sanitarios, violencia, género.

## Introduction

Despite the deep and pervasive importance of trust in medical settings, there is no widely shared understanding of what trust means, and little is known about what trust actually makes, what factors trust influences, and how trust relates to other similar attitudes and behaviors. The importance of trust in medical relationships has been known for a long time<sup>1-3</sup>, but trust in the system and trust in physicians have not been measured or systematically analyzed until recently. However, the doctor-patient relationship has recently attracted more attention (1,4). It is seen as a global feature of patient-doctor-treatment relationships, each of which has important importance in its own right, including many ancillary features such as trust, satisfaction, communication, competence, and privacy<sup>5,6</sup>.

In this context, it is important to determine how important medical mistrust is in the intention to use violence against healthcare professionals. When the national literature is examined, it is seen that there are limited studies examining the effect of medical mistrust on the intention to inflict violence on healthcare workers. However, no article was found that examined the role of gender in the effect of medical mistrust on the intention to commit violence against healthcare professionals.

## Materials and methods

### Research Model

This study's main purpose is to determine the moderator role of gender in the effect of medical mistrust on the intention to inflict violence on healthcare workers. In the research, the independent variable of medical mistrust; Intention to inflict violence on healthcare workers was considered the dependent variable, and gender was the moderator variable.

### Data Collection Tools

In this study, the survey method was preferred at the point of data collection. The questionnaires were delivered to the participants online. In the questionnaire, there are statements that reveal the opinions of the participants about the intention to use violence against health workers and medical mistrust, as well as descriptive personal characteristics. The medical mistrust scale is a scale developed by Thomas et al. The scale, adapted into Turkish by Şengül and Bulut (2020), consists of 17 statements<sup>7</sup>. As a result of the reliability analysis of the scale, which was structured as a 4-point Likert scale, Cronbach's Alpha coefficient was determined as 0.85. In this study, the said value was determined as 0.85.

The other scale included in the questionnaire is the "Intention to Inflict Violence Scale on Health Care Workers" developed by Şanlıtürk and Boy (2020)<sup>8</sup>.

Scale; individuals' intention to commit violence<sup>1</sup>, past experiences<sup>2</sup>, attitude towards behavior<sup>3,4,5,6,7,8</sup>, subjective norm<sup>9,10,11,12,13</sup> and perceived behavioral control<sup>14,15</sup> consists of 5 sub-dimensions. The scale, which included a total of 15 statements, was structured as a 5-point Likert scale, ranging from 1: I strongly disagree to 5: I strongly agree. As a result of the reliability analysis performed in the study, Cronbach's Alpha coefficient was determined as 0.81. In this study, the said value was determined as 0.81.

### Statistical Analysis

The analysis of the data was made with the SPSS 26.0 program and it was studied with a confidence level of 95%. Frequency (n) and percentage (%) statistics for categorical (qualitative) variables, mean (mean), standard deviation (ss), minimum (min.), and maximum (max.) statistics are given for numerical (quantitative) variables. In the study, Cronbach's Alpha coefficient was used to reveal the reliability of the scales. Skewness and kurtosis values were calculated to examine the conformity of the scores obtained from the scales to the normal distribution. The kurtosis and skewness values obtained from the scale scores between +3 and -3 are considered sufficient for a normal distribution<sup>9</sup>. Accordingly, it was determined that the scores of Medical mistrust and Intention to Violence against Health Care Professionals showed a normal distribution. Therefore, parametric methods were used in the analyses. Pearson correlation test was used in the relationship between medical mistrust and intention to use violence against healthcare professionals, and Process Regression analysis was used in the moderator effect model. In the regulatory impact model, the effect of the interaction term should be significant.

## Results

It was seen that the average age of the participants was 31.06 and 61.9% of them were male. In the distribution of perceived income level, it was seen that 69.3% of them had medium income. Finally, it was seen that the gender of the doctor in the last health institution from which service was received was male in 40.9% and female in 59.1% (Table I).

**Table I:** Descriptive Characteristics of Research Participants.

	Mean	Std. Deviation
<b>Age</b>	31,06	7,27
<b>Gender</b>	<b>N</b>	<b>%</b>
Male	389	61,9
Female	239	38,1
<b>Income rate</b>	<b>N</b>	<b>%</b>
High	97	15,4
Middle	435	69,3
Low	96	15,3
<b>Gender of the doctor in the last health institution from which service was received</b>	<b>N</b>	<b>%</b>
Male	257	40,9
Female	371	59,1

The mean score of medical mistrust of the respondents is  $3.1 \pm 0.46$ , the mean score of intention is  $2.22 \pm 1.56$ , the mean score of past experience is  $4.46 \pm 1.13$ , the mean score of attitude towards behavior is  $1.69 \pm 0.73$ , the subjective norm means the score was  $2.10 \pm 0.70$ , and mean perceived behavioral control score was  $2.13 \pm 1.12$  (Table II).

**Table II:** Descriptive Statistics.

	Min.	Max.	Mean	Std. Devi.	Skewness	Kurtosis
MM	1	4	3,11	0,46	-0,41	0,05
Intention	1	5	2,22	1,56	0,85	-0,91
PB	1	5	4,46	1,13	-2,13	2,31
ATB	1	4	1,69	0,73	1,02	0,17
SN	1	4	2,1	0,7	0,39	-0,23
PBC	1	5	2,13	1,12	0,67	-0,47

ATB: attitude toward behavior; PB: past behavior; PBC: perceived behavioral control; SN: subjective norm, MM: Medical Mistrust

It was observed that there was a positive relationship between medical mistrust and intention to use violence against health professionals ( $r=.551, p<.01$ ), PB ( $r=.384, p<.01$ ), ATB ( $r=.505, p<.01$ ), SN ( $r=.546, p<.01$ ) and PBC ( $r=.563, p<.01$ ) (Table III).

**Table III:** Relationships Between Medical Mistrust and Intention to Violence Against Healthcare Professionals.

	Intention	PB	ATB	SN	PBC
MM (r)	,551**	,384**	,505**	,546**	,563**

\*\* $p<0.01$

It is seen that the model created for the moderator effect of the doctor's gender on the intention to commit violence against healthcare professionals of medical mistrust is significant ( $F=106,293; p<0.05$ ). While the variables of medical mistrust ( $B=4.181$ ) and gender ( $B=4.383$ ) have a positive effect on the intention to inflict violence on healthcare workers, the interaction term ( $B=-1.275$ ) has a negative effect ( $R^2=33.8%; p<0.05$ ). When the doctor's gender is male, the intention to commit violence increases positively in case of medical mistrust ( $B=1,630$ ). This becomes more evident when the gender of the doctor is female ( $B=2.905$ ). (Table IV).

**Table IV:** The Regulatory Role of Gender in the Effect of Medical Mistrust on Intention to Violence against Health Care Professionals.

	B	LLCI-ULCI	t	p	R2	F
MM >Intention	4,181	3,258/5,103	8,899	0,000*	0,338	106,293*
Gender >Intention	4,383	2,736/6,030	5,225	0,000*		
MM* Gender >Intention	-1,275	2,347/769029	-4,878	0,000*		
MM* Gender (Female)	2,905	2,463/3,348	12,894	0,000*		
MM* Gender (Male)	1,63	1,370/1,891	12,296	0,000*		

## Discussion

Medical mistrust is a multifactorial social phenomenon, which significantly depends on the type of community, the

psychosocial status of a population, and individual beliefs. The predominance of cases of MM happens in diverse minorities of the public sector and extremely impacts clinical practice. Therefore, the MM linked to gender could be one of the most common and at the same time the most difficult for identification of doctor-patient issues.

In different social groups over the world, the rate of MM varies from 20 to 80%<sup>10,11</sup>. The negative skewness of MM with a mean value of 3.11 demonstrates in current research that 77.5% of questioned experienced MM and 44% had an intention of violence toward doctors. According to some research outcomes<sup>12,13</sup> 8,3-12.3% of represented groups avouched in the use of violence against medical professionals, mostly in verbal form - 77,5%<sup>12-15</sup>. Negative kurtosis of intention shows that the numbers of patients in this study who wished to implicit violence are slightly lower than the mean.

Past behavior has high mean values (4.46) in this study, showing not only possible experience of previously dissatisfactory doctor-patient communication or unsuccessful treatment but also a predisposition to further mistrust, conflicts, and possible violence. Our study revealed a notable statistical relationship between MM and the intention to use violence, which may indicate mistrust as a background of violent behavior attempts. When the gender of the doctor is male, the intention to commit violence increases on the background of mistrust and is more pronounced when the gender of the doctor is female.

The statistically evident fact of the current investigation, that gender has an impact on the intention to inflict violence towards female doctors ( $B=2.905$ ) requires further investigations to rule out or prove discrimination. According to some studies, discrimination is often related to MM<sup>10,12</sup>. Further populational studies are necessary to clarify the causes of MM in the aspect of physician gender and should be directed to many aspects - its frequency in private and state medical institutions, its distribution among different medical specialties (f.i. there are more gynecologists women over the world and they have a preference among patients<sup>14</sup>), educational attainment of patients, the possible discrepancies in different age groups of patients as well as doctors, who experience MM. The role of gender in MM should also be considered together with other possible factors, which can overlap each other and have distinguished meanings alone.

Thus, MM is a complex problem, the roots of which come from both the doctor and the patient. Meticulous analysis of the biased attitude to female doctors could improve outcomes of treatment eventually and create better work conditions for this group of medical professionals.

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