

## Moderating Role of Violence by Patients and Their Relatives on the Behaviors of Healthcare Professionals

### ABSTRACT

**Objective:** Studies examining violent behaviors occurring in health settings emphasize direct effects of the variables, and the findings are collected in a limited area. This study aimed to investigate the role of the moderator in the relationship between organizational citizenship behavior (OCB) and job satisfaction in the setting of violent behavior by the patients and their relatives toward healthcare professionals.

**Methods:** Research data were collected by face-to-face questionnaire method by interviewing the participants. The study included 512 healthcare workers, physicians, nurses, midwives, and health technicians, working in different units of 13 public hospitals in Ankara and providing health services directly to the patients.

**Results:** According to the results of the regression analysis, a significant and direct effect of the general level of OCB that predicts the general level of job satisfaction has emerged ( $\beta = 0.284$ ,  $t = 6.68$ ,  $P < .001$ ). It has been determined that violent behaviors toward healthcare professionals explain approximately 12.5% of the variance with its differentiating role reducing this effect ( $R^2 = 0.125$ ,  $F = 25.30$ ,  $P = .001$ ).

**Conclusion:** This study showed that the positive contribution of OCB to job satisfaction is higher in healthcare workers who are not exposed to violent behavior. The results of this study also revealed that the relationship between variables regarding the attitudes and behaviors of healthcare professionals may differ owing to the violence perpetrated by the patients and their relatives.

**Keywords:** Health personnel, job satisfaction, behavior, violence

### Introduction

The voluntary behaviors of employees that can be termed as positive and constructive employee actions toward their organizations vary according to individuals. The organizational citizenship behaviors (OCB) of the employees contribute significantly to their organizations and other employees.<sup>1-5</sup> OCB is required to provide health services more efficiently; to obtain a competitive advantage over other healthcare facilities; to provide a high level of patient satisfaction; to increase the motivation, performance, and organizational commitment of healthcare professionals; and to reduce the rate of turnover.<sup>6,7</sup> Risks encountered in healthcare environments can negatively affect voluntary behaviors of healthcare workers, apart from the rules they should obey. Attitudes and behaviors that have individual and organizational consequences in working life can interact with each other. In this context, it is seen in the literature that OCB has a strong relationship with job satisfaction; and therefore, these two concepts are discussed together.<sup>6,8-11</sup>

Job satisfaction, which is defined by Locke<sup>12</sup> as a positive and emotional response that an individual develops as a result of evaluating or experiencing his job, is accepted as a strong predictor of individual wellbeing.<sup>13</sup> In studies on job satisfaction of healthcare professionals, the importance of environmental and mental-social conditions has emerged. It has been observed that role ambiguity in the healthcare environment, conflict, lack of skills, and workload negatively affect the job satisfaction of employees.<sup>14-16</sup> In addition, violent behaviors frequently encountered in healthcare facilities can also cause negative effects.



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Violent behaviors in healthcare settings are defined as threatening words or behaviors, physical or sexual attacks by the patient, the patient's relatives, or other individuals that pose a risk to healthcare professionals.<sup>17</sup> It is observed that violence, which occurs in varying dimensions, causes depression, anxiety, suicidal tendency, injury, and even death in healthcare workers.<sup>18-23</sup> As a result of violent behaviors, job dissatisfaction also occurs in healthcare workers.<sup>21-27</sup>

In addition to the studies examining the effect of job satisfaction on OCB,<sup>2,4,5,28-33</sup> there are also studies<sup>34-38</sup> reporting that OCB affects job satisfaction positively. These studies are important in that behavioral patterns, which are understood to be related with ethical values, affect employee psychology within the scope of job satisfaction. In the literature, there is no study examining the differentiating role of violent behaviors that result in injury or even death in terms of healthcare professionals, together with the OCB and job satisfaction variables. However, high levels of motivation, self-sacrifice, and attention are also required in healthcare environments where violence is intense. In this context, it can be said that violent behaviors against employees who take responsibility in the uninterrupted provision of health services are an important factor.

In this study, the dimensions of violence by patients and their relatives against healthcare professionals who are in direct contact with the patients were discussed. The study aimed to examine the differentiating role of violence in the relationship between OCB and job satisfaction of healthcare workers who are exposed to violent behavior. We believe that the study will contribute to the literature at this point.

## Methods

Research data were collected by face-to-face questionnaire method by interviewing the participants. Although the number of questions is high, this method ensures that the response rate can be higher and data can be obtained faster. Following the approval of the Near East University Ethics Committee dated June 11, 2019, #385, the necessary administrative permissions were obtained from the Ankara Provincial Health Directorate and all the hospital administrations. The sample of the study consisted of healthcare profes-

sionals working in 13 public hospitals in Ankara and participating in the study voluntarily. Simple random sampling method was used in the study conducted between June 25 and September 18, 2019. The total number of healthcare workers in the hospitals included in the study was stated as 9,281. In cases where the population is known, the sample size was calculated as 369 using the formula used to determine the sample. Among the participants who volunteered for the study; 104 physicians, 235 nurses, 35 midwives, and 138 other healthcare workers were reached in proportion to their occupational groups. Consent forms were given to a total of 512 healthcare workers, and the questionnaire questions were asked after their approval. Care was taken to ensure that the participants in the study were healthcare professionals who directly provided health services to the patients.

### Data Collection Tools

**Sociodemographic Data Form:** It is a form including 11 questions created by the researchers and containing information such as age, sex, education, profession, and the unit they work in.

**Violence History Form:** It is a form created by the researchers using literature and ethnographic observation method with 12 questions about the history of violence. Expert opinion of the form was obtained from experts working in the field of psychiatry and health. It includes questions that inquire about witnessing violence, the type of violence, the number of times it occurred, by whom, where, on which day and time.

**Organizational Citizenship Behavior Scale (OCBS):** In our study, a 24-question SCAS developed by Podsakoff et al.<sup>39</sup> Turkish validity and reliability study of OCBS was conducted by Bitmiş et al.<sup>40</sup> The scoring of the scale, which has 5 dimensions, such as, altruism, courtesy-based information, gentlemen, conscientiousness, and civic virtue, is rated between '1' (never) and '5' (always). Cronbach's alpha reliability coefficient of the scale was found 0.88.

**Minnesota Job Satisfaction Scale:** The Minnesota job satisfaction scale, developed by Weiss et al.<sup>41</sup> has 2 dimensions, internal and external satisfaction. This scale, whose Turkish validity and reliability study was conducted by Baycan,<sup>42</sup> includes 20 items. The scoring of the scale is graded between '1' (not satisfied with my job) and '5' (very satisfied with my job). Cronbach's alpha reliability coefficient of the scale was found to be 0.94.

### Statistical Analysis

According to the research model, the relationship between variables was determined, and the differentiating role was examined in accordance with the method developed by Baron and Kenny.<sup>43</sup> They defined differentiating variables as qualitative or quantitative variables that affect the direction or strength of the relationship between independent or predictive variables and dependent or discriminating variables. The data were evaluated using the Statistical Package for Social Sciences version 22.0 (IBM Corp.; Armonk, NY, USA). Spearman correlation analysis was used to examine the relationship between parameters that do not conform to normal distribution. In the research, after determining the frequency, percentage, averages, standard deviations, and correlation values; the differentiating effect was tested with hierarchical regression analysis. Statistically,  $P < .05$  was considered significant.

### MAIN POINTS

- *The moderator role of the severity of patient and patient relatives in the effect of health workers' OCB on job satisfaction and sub-dimensions was tested.*
- *The analysis shows that OCB and its sub-dimensions have a positive effect on job satisfaction and its sub dimensions.*
- *The analysis shows that workplace violence has a negative moderating role with regards to the effect general level of OCB has on general level of job satisfaction.*
- *Sincere subjective behavior shown by healthcare workers outside formal rules has a positive effect on job satisfaction levels. Violence by patients and patient relatives to which they are subjected throughout their career reduces this effect.*
- *The reductive effect of workplace violence is stronger than the positive contribution OCB makes to job satisfaction. In other words, contribution of employees who are not being subjected to violence on job satisfaction of OCB is higher.*

## Results

A total of 381 (74.4%) women, 131 (25.6%) men, and employees providing direct health services to patients participated in the study. Of them, 78.5% of the healthcare professionals were married, 43.4% were between the ages of 40 and 49, and 54.7% had undergraduate degrees. Nurses comprised 45.9% of the sample, and 27.5% worked in clinics. The rate of those who witnessed psychological/verbal violence by the patient and/or the patient's relatives in the past year was 75.8%, the rate of those who saw physical violence was 32.0%, and those who witnessed sexual violence were 5.5%. Of the participants, 77.3% stated that they were subjected to psychological/verbal violence during their professional life. The rate of those subjected to physical violence was 13.9%, and the rate of those subjected to sexual violence was 2.2%. The violence was perpetrated by the patients (17.3%), the patients' relatives (54.1%), and by both (28.6%). It was seen that physicians (91.3%) were the most exposed to violence according to the occupational titles, followed by nurses (82.5%) and

midwives (68.6%). Other healthcare workers (61.6%), such as health officers; laboratory, radiology, and anesthesia personnel; and emergency medical technicians, who worked in the hospital environment were also subjected to violence. The most intensive work environments were the emergency services (25.3%), and the violent incidents were mostly (30.1%) observed between 13-18 hours. Of the healthcare workers participating in the study, 37.1% stated that they were subjected to violence 1-3 times, 13.7% said 4-6 times, 8.8% said 7-10 times, and 17.8% said they were subjected to violence 11 times and more.

The overall job satisfaction mean score of the participants was calculated as 3.28 (SD = 0.79), the mean internal satisfaction score was 3.47 (SD = 0.78), and the external satisfaction mean score was 3.00 (SD = 0.88). It was observed that the internal and general job satisfaction of the healthcare professionals participating in our study were high, and their external satisfaction was moderate. The sub-dimensions of the OCBS, which were calculated by taking the averages of the questions related to each sub-dimension, and the overall OCBS average were evaluated. Among the sub-dimensions in the scale, the highest score of 4.42 (SD = 0.64) was found in the courtesy dimension, and the level of showing the behavior was determined to be very high. Civic virtue with a score of 3.82 (SD = 0.88), however, emerged as the sub-dimension with the lowest average and was included in the high category. Other dimensions were also placed in the high and very high categories. Looking at the general average of the OCBS, it was seen that the participants showed a high level of OCB with 4.13 (SD = 0.50). It was observed that midwives had the highest score of 4.30 (SD = 0.44) in displaying OCB, followed by nurses with 4.14 (SD = 0.48). Physicians, however, were the occupational group that showed the least OCB with an average of 3.81 (SD = 0.41).

### Correlation Values

Since data related to violent behaviors are measured by the ranking method, ranking difference correlation coefficients were used. Using the Spearman correlation analysis, a value of  $P < .05$  was considered statistically significant. When the results were examined, no meaningful relationship were found between the level of being subjected to violence and the general level of the OCBS ( $r = -0.130$ ,  $P = .003$ ), the altruism dimension ( $r = -0.063$ ,  $P = .157$ ), the courtesy dimension ( $r = -0.059$ ,  $P = .186$ ), conscientiousness with the size ( $r = -0.079$ ,  $P = .073$ ), the gentlemen's dimension ( $r = -0.162$ ,  $P < .001$ ), the civic virtue dimension ( $r = -0.065$ ,  $P = .142$ ), the general level of job satisfaction

**Table 1. Hierarchical to the Differentiating Role of Violent Behaviour Between Altruism and Internal Satisfaction Regression Analysis**

Frequency of violent behaviour <sup>a</sup>		
The general level of organizational citizenship behavior scale	r	-0.130
	P	.003
Altruism	r	-0.063
	P	.157
Courtesy	r	-0.059
	P	.186
Conscientiousness	r	-0.079
	P	.073
Sportsmanship	r	-0.162
	P	<.001
Civic virtue	r	-0.065
	P	.142
Job satisfaction general level	r	-0.240
	P	<.001
Internal satisfaction	r	-0.181
	P	<.001
External satisfaction	r	-0.286
	P	<.001

<sup>a</sup>Sperman rho correlation analysis.

**Table 2. Hierarchical to the Differentiating Role of Violent Behaviour Between Altruism and Internal Satisfaction Regression Analysis**

Model	Independent variable	Non-standardized coefficient		Standardized coefficient		P	Str. R <sup>2</sup>	F
		B	SE	β	t			
1	Constant	3.470	0.035			<.001		
	Altruism	0.083	0.035	0.106		.016	0.009	5.807
2	Constant	3.470	0.034			<.001		
	Altruism	0.080	0.034	0.102		.020		
3	WV	-0.107	0.034	-0.136		.002	0.026	7.826
	Constant	3.467	0.033			<.001		
	Altruism	0.075	0.033	0.096		.027		
	WV	-0.108	0.033	-0.137		.002		
	Altruism x WV	-0.117	0.033	-0.153		<.001	0.048	9.498

Abbreviations: WV, workplace violence; SE, standard error; Str.R<sup>2</sup>, standardized estimates and R-square. Dependent variable: internal satisfaction.

**Table 3. Hierarchical Regression Analysis of the Differentiating Role of Violent Behaviours Between Sportsmanship and External Satisfaction**

Model	Independent variable	Non-standardized coefficient		Standardized coefficient		P	Str. R <sup>2</sup>	F
		B	SE	$\beta$	t			
1	Constant	3.002	0.038		97.959	<.001		
	Sportsmanship	0.218	0.038	0.246	6.681	<.001	0.059	32.819
2	Constant	3.002	0.037		99.507	<.001		
	Sportsmanship	0.186	0.037	0.210	6.346	<.001		
	WV	-0.202	0.037	-0.228	-4.153	<.001	0.108	31.870
3	Constant	2.983	0.037		99.677	<.001		
	Sportsmanship	0.189	0.037	0.213	6.097	<.001		
	WV	-0.216	0.037	-0.244	-4.340	<.001		
	Sportsmanship x WV	-0.123	0.036	-0.144	-3.363	.001	0.127	25.686

Abbreviations: WV, workplace violence; SE, standard error; Str.R<sup>2</sup>, standardized estimates and R-square.  
Dependent variable: external satisfaction.

**Table 4. Hierarchical Regression Analysis of the Differentiating Role of Violent Behaviours Between OCBS and Job Satisfaction**

Model	Independent variable	Non-standardized coefficient		Standardized coefficient		P	Str. R <sup>2</sup>	F
		B	SE	$\beta$	t			
1	Constant	3.283	0.034		97.959	<.001		
	OCBS	0.224	0.034	0.284	6.681	<.001	0.079	44.633
2	Constant	3.283	0.033		99.507	<.001		
	OCBS	0.211	0.033	0.267	6.346	<.001		
	WV	-0.138	0.033	0.174	-4.153	<.001	0.107	31.649
3	Constant	3.272	0.033		99.677	<.001		
	OCBS	0.201	0.033	0.254	6.097	<.001		
	WV	-0.143	0.033	0.181	-4.340	<.001		
	OCBS x WV	-0.112	0.033	-0.140	-3.363	.001	0.125	25.296

Abbreviations: OCBS, organizational citizenship behavior scale; WV, workplace violence; SE, standard error; Str.R<sup>2</sup>, standardized estimates and R-square.  
Dependent variable: job satisfaction.

( $r = -0.240$ ,  $P < .001$ ), the intrinsic satisfaction dimension ( $r = -0.181$ ,  $P < .001$ ), and the extrinsic satisfaction dimension ( $r = -0.286$ ,  $P < .001$ ) (Table 1).

The lack or low level of correlation between the differentiating variable and the independent variable is an approach supported in the literature. Accordingly, it is understood that the differentiating role of violent behavior between variables can be examined with hierarchical regression analysis.<sup>43</sup>

### Regression Analysis Results

According to the hierarchical regression analysis, altruism, which is one of the sub-dimensions of OCBS, has a significant and direct effect on the predicted variable, internal satisfaction ( $\beta = 0.106$ ,  $t = 2.41$ ,  $P = .016$ ).

The fact that the differentiating variable increases the adjusted R<sup>2</sup> value, and the analysis is meaningful shows that violence has a differentiating role. As observed in Table 2, violence has a role in reducing the effect of altruism on internal satisfaction and explains 4.8% of the variance together with altruism ( $R^2 = 0.048$ ,  $F = 9.50$ ,  $P < .001$ ). There was a significant and direct effect of courtesy that predicted inner satisfaction ( $\beta = 0.159$ ,  $t = 3.63$ ,  $P < .001$ ). It is seen that the violent behavior that reduces this effect explains 6.4% of the variance with courtesy ( $R^2 = 0.064$ ,  $F = 12.58$ ,  $P < .001$ ). Another variable that significantly and directly affects inner satisfaction is sportsmanship ( $\beta = 0.318$ ,  $t = 7.57$ ,  $P < .001$ ). Violent behavior, which explains 12.7% of

the variance together with sportsmanship, has a differentiating role here ( $R^2 = 0.127$ ,  $F = 25.68$ ,  $P = .001$ ). Conscientiousness and civic virtue also have a significant and direct effect that predicts inner satisfaction ( $\beta = 0.202$ ,  $t = 4.66$ ,  $P < .001$  and  $\beta = 0.249$ ,  $t = 5.81$ ,  $P < .001$ ). As there was no significant relationship between conscientiousness and civic virtue independent variables and violence, a differentiating role could not be detected ( $P = .301$  and  $P = .167$ ). Altruism does not have a significant effect on the external satisfaction dimension ( $P = .412$ ); however, courtesy has a significant and direct effect that predicts external satisfaction ( $\beta = 0.112$ ,  $t = 2.54$ ,  $P = .011$ ). The fact that the violence increased the adjusted R<sup>2</sup> value, and the analysis was significant revealed a differentiating role here as well. It is seen that violent behavior, which reduces the effect of courtesy on external satisfaction, explains 8.5% of the variance together with courtesy ( $R^2 = 0.085$ ,  $F = 16.82$ ,  $P = .013$ ). Conscientiousness is another variable that significantly and directly affects external satisfaction ( $\beta = 0.201$ ,  $t = 4.63$ ,  $P < .001$ ). As there was no significant relationship between conscientiousness and violence, a differentiating role was not detected ( $P = .639$ ). Table 3 shows a significant and direct effect of gentleman's predicting external satisfaction ( $\beta = 0.246$ ,  $t = 5.73$ ,  $P < .001$ ). Violent behavior, which explains 12.7% of the variance together with sportsmanship, has a differentiating role here ( $R^2 = 0.127$ ,  $F = 25.69$ ,  $P = .001$ ).

Civic virtue also has a significant and direct effect that predicts external satisfaction ( $\beta = 0.229$ ,  $t = 5.31$ ,  $P < .001$ ). As there was no significant relationship between the civic virtue independent variable and violent behavior, a differentiating role was not found ( $P = .488$ ).



As can be seen in Table 4, there was a significant and direct effect of the general level of PSAS that predicts the general level of job satisfaction ( $\beta = 0.284$ ,  $t = 6.68$ ,  $P < .001$ ). It is seen that violent behaviors explain 12.5% of the variance with its differentiating role reducing this effect ( $R^2 = 0.125$ ,  $F = 25.30$ ,  $P = .001$ ).

## Discussion

In this study, the types of violence experienced by healthcare professionals perpetuated by patients and their relatives were examined. It was found that the healthcare professionals participating in the study were subjected to high levels of psychological/verbal violence, physical violence, and sexual violence. According to occupational groups, it was observed that physicians were the most exposed to violence, followed by nurses, midwives, and other healthcare professionals, respectively. It can be hypothesized that midwives are subjected to less violence because they usually deliver babies and thus share good news and do not usually deal with people with health problems and their relatives. Other healthcare professionals such as health officers, laboratory and radiology personnel, anesthesiologists, and emergency medical technicians working in a hospital environment have relatively less interaction with the patients and their relatives. The results of our study are similar to the results of previous studies regarding the size and types of violent behaviors experienced by healthcare workers.<sup>18-27</sup>

It has been determined that the healthcare workers have high levels on the OCBs. These findings are in Turkey (Istanbul, Eskişehir, and Denizli) and are similar to the results of studies on health workers in Ankara.<sup>44-48</sup> It was observed that midwives had the highest rate of showing OCB, followed by nurses. Physicians, on the other hand, were the occupational group that showed the least OCB. The fact that midwives and nurses take care of the patients, rather than treat, and communicate closely with the patients ensures that there are grateful returns from the caregivers. This interaction promotes high OCB levels in midwives and nurses.

In this study, the highest job satisfaction was found in midwives and the lowest job satisfaction in nurses. Nurses' lower level of job satisfaction compared with other healthcare workers is similar to previous study results.<sup>16,20,22,26,32</sup>

The differentiating role of violent behaviors on the effect of the health workers' OCBs and its sub-dimensions on job satisfaction and its sub-dimensions was also tested. Accordingly, the effect of the altruism and courtesy sub-dimensions of the OCB for the individual and the sportsmanship's sub-dimension toward the organization on the internal and external satisfaction dimensions of job satisfaction was seen. Violence has not been found to differentiate the effects of the sub-dimensions of civic virtue and conscientiousness toward the organization on internal and external satisfaction dimensions. Considering that health services are provided as a team, the OCB behaviors toward the individual gain importance in the relationship among the employees. According to the data obtained, it is noteworthy that violence reduces the effect of solidarity of healthcare workers on job satisfaction. According to the analysis, the job satisfaction provided by the individual solidarity of healthcare workers can be negatively affected by violence. However, this situation does not make a difference in the same way for the job satisfaction provided by the sacrifices made toward the organization. Therefore, it is believed that more

risks and dangers are taken by the healthcare professionals during the OCB directed toward the organization.

Healthcare professionals are subjected to a high rate of violent behavior by patients and their relatives. The violent behaviors cause a reducing effect on the positive contribution of the OCB of healthcare workers to job satisfaction, and the positive contribution of OCB to job satisfaction is higher for employees who are not subjected to violence. In this context, considering that violence may create differences among variables that affect employee attitudes and behaviors may contribute to the literature.

The fact that this study was conducted in only a few hospitals and with a small sample size is one of its limitations. Similar studies may be recommended in other healthcare facilities of different nature and in different regions. Considering that this research cannot be applied as a standard in every institution and that only the health facilities provided in the study are considered, it is necessary to conduct qualitative studies in the adaptation stages.

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**Ethics Committee Approval:** Ethics committee approval was received for this study from the Ethics Committee of Near East University (Approval Date: June 11, 2019; Approval Number: 385).

**Informed Consent:** Informed consent was obtained from the individuals who participated in this study.

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