

ORIGINAL ARTICLE

Medicine Science 2022;11(2):849-54

The effect of COVID-19 Pandemic on domestic violence and mobbing among health workers**Burak Mete, Ayse Inaltekin, Hakan Demirhindi***Cukurova University Faculty of Medicine, Department Public Health, Adana, Turkey*Received 08 November 2021; Accepted 22 February 2022
Available online 27.04.2022 with doi: 10.5455/medscience.2021.11.370Copyright@Author(s) - Available online at www.medicinescience.org

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**Abstract**

This study aimed to reveal the relationship between mobbing and domestic violence in healthcare workers during the COVID-19 pandemic. This cross-sectional study included 399 health workers working in primary, secondary, or tertiary health institutions in Adana in July 2021. In the questionnaire form applied to the individuals, they were asked to evaluate their exposure to and committing domestic violence and mobbing in the pre- and during the pandemic period. The mean age of 399 healthcare professionals participating in the study was 35.21 ± 7.72 (min 21-max 65), with 67.9% being female, and 62.7% physicians. It was observed that 6.5% of health workers were exposed to physical, 16.3% to verbal, 11.8% to emotional, 7.5% to economic, and 1.5% to sexual domestic violence in an increased rate during the pandemic period. New-onset violence exposure was assessed in 1-2.8% of participants. Exposure to mobbing was observed to have increased by 40% during the pandemic period although the effect of the pandemic on mobbing exposure was found to be statistically small. The level of domestic verbal (20.9%), emotional (17.2%), and economic violence (8.6%) was found to be significantly higher in individuals with increased exposure to mobbing during the pandemic period. The risk of committing any domestic violence behavior was found to be 4.77 times higher in health workers with increased exposure to mobbing. The increase in workplace psychological violence in healthcare workers increases the risk of committing any domestic violence. Exposure to mobbing causes an increase in the perpetration of domestic verbal and emotional violence.

Keywords: Domestic violence, mobbing, pandemics, health workers**Introduction**

In many countries around the world preventive measures such as social distancing and quarantine have been implemented to control the spread of the SARS-CoV-2 pandemic strain at the community level. However, while aiming to reduce any serious negative impacts of preventive measures on public health, these strategies increased the rates of domestic violence worldwide [1]. Domestic violence refers to aggressive, hostile, and violent behavior within the family that can be psychological, emotional, physical, or sexual. It can also be defined as the initiation of fear and control in a relationship through violence and other forms of abuse [2]. COVID-19 guidelines and movement restrictions including social distancing, isolation, and quarantine are designed to protect public health and reduce disease transmission. But they may have an undescribed effect on violence and abuse in relationships. As the pandemic progresses, many have expressed the view that such

restrictions may pose a danger to the safety of people who are exposed to domestic violence [3].

Intimate partner violence includes physical, sexual, and psychological abuse by a past or current partner [4]. Intimate partner violence is common throughout the world. For example, in the United States, about 20 people are physically abused every minute by an intimate partner [5]. While physical violence is the most obvious form of abuse, intimate partner violence can also include other forms of abuse, such as focusing on intimidating and controlling the victim, or increased use of physical violence when fighting [4]. Defining such controlling behaviors as a justification for controlling the pandemic may be more frequently observed. Countries that were severely affected by COVID-19 early in the pandemic expressed concern about the effects of the pandemic on the occurrence of intimate partner violence. There was an increase of 36% in the number of reported domestic violence cases in France. A two-fold increase in domestic violence cases was reported within a month following movement restrictions in a city in China. Chinese police reported that 90% of the causes of recent domestic violence cases can be attributed to the COVID-19 outbreak [6]. Prolonged movement restrictions, increasing economic pressure and growing concern about the restricted healthcare capacity to

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support survivors are among the possible causes of such dramatic effects [3].

Healthcare workers around the world also suffer from negative actions inside and outside the workplace, such as harassment, violent assaults, long working hours, psychological distress, fatigue, and occupational burnout. In addition to the violence directly committed to health workers, the pandemic process itself and negative approaches such as mobbing applied in this process negatively affect the psychological status of health workers and lead to an increase in their anxiety. All the negativities and violence experienced by healthcare professionals during the pandemic process naturally affect also their families negatively. The unfavorable conditions of health workers at the workplace during the pandemic period may also cause an increase in psychological violence at the workplace and domestic violence [7].

This study aimed to determine the extent of psychological violence in the workplace and domestic violence in a group of health workers during the COVID-19 pandemic and to assess the relationship between mobbing and domestic violence.

Materials and Methods

Study design

This cross-sectional study, carried out in July 2021 by the researchers of Çukurova University, Faculty of Medicine, Department of Public Health, included health workers working in Adana (Turkey). The permission for the study was obtained from the ethics committee of Çukurova University Faculty of Medicine (decision no: 112) and the Ministry of Health of the Republic of Turkey. The STROBE criteria were taken into account in the study design.

Study universe and sampling

The universe of the study consisted of approximately 18,000 health workers residing in Adana and working in the primary, secondary, or tertiary health care services. The minimum sample size was found to be 377 in the sample size analysis performed by assuming a type-1 error level of 0.05, a design effect of 1, and a prevalence of 50%.

A total of 399 health workers were contacted by phone or online platforms (e.g. e-mail, WhatsApp groups, etc.) using the convenience sampling method and asked to fill in an online questionnaire. They consisted of physicians, nurses, midwives, dentists, pharmacists, and other health staff working in primary, secondary, or tertiary health care institutions in Adana. These institutions included Çukurova University Balcalı Hospital, Adana City Hospital, Çukurova State Hospital, Seyhan State Hospital, Ceyhan State Hospital, Kozan State Hospital, Mental Health Hospital, Provincial Health Directorate, District Health Directorates, Healthy Life Centers, Tuberculosis Control Dispensary, Family Health Centers, Pharmacies, and Oral and Dental Health Hospital. While filling out the survey form, the 'limit to one answer' option from Google forms was selected to prevent resubmissions by the same users.

Information collection tools

The questionnaire form included two sections: the first consisting of questions related to demographic information and domestic violence, and the second consisting of the "Mobbing Scale". Questions about domestic violence were prepared after referring to the book "Perception of violence against women" [8].

Evaluation of domestic violence

In the questionnaire, different domestic violence types (physical, verbal, emotional, economic, and sexual) were first defined to the participant and the exposure to violence of the participants and their commitment status were investigated separately for both the pre-pandemic and pandemic period.

Definitions of violence types presented online in the survey

Physical Violence: It is the use of brute force as a means of frightening, intimidation and sanction. It includes acts of physical violence like pushing, poking, punching, biting, slapping, injuring, or torturing with any tool or weapon.

Verbal violence: It is the use of words, gestures, and facial expressions to frighten, intimidate and punish the other person. The most obvious forms of verbal violence are ignoring the issues that the person cares about, saying scorching and humiliating words at regular intervals, using derogatory nicknames, and frequently making negative remarks and addresses.

Emotional (psychological) violence: Behaviors such as intimidation, preventing the person from doing the things he or she likes, threatening, showing no love, controlling one's relationships with others.

Economic violence: It includes behaviors such as not allowing the person to work, forcing the person to work, asking him or her to quit the job, taking the person's income and spending it for himself/herself, not allowing business trips, checking the commute times.

Sexual violence: Excessive jealousy and suspicion, treating the other person as a sexual object, using sexuality as a punishment method, cheating, forcing the other person to have sexual intercourse without his/her will can be considered as sexual violence.

Mobbing Scale

In the scale part of the questionnaire, the Mobbing Scale developed by Aiello, Deitingner, Nardella, and Bonafede in 2008 was used. The scale consisted of 38 items and its validity and reliability in Turkey was assessed by Laleoğlu and Özmete in 2013. The Cronbach Alpha coefficient of the scale was found to be 0.94. The Turkish version of the scale similarly consisted of 38 questions and 5 sub-factors:

Factor-1 evaluates the relations with a colleague (items 1,2, 3, 4,5,6,7,9,10,11,12,13,14,15,16,17 and 18). Factor-2 evaluates threats and harassment (items 8,19,20,21,22,24 and 28). Factor-3 assesses work and career-related obstacles (items 25,26,27,31,32, 33,34,35,36,37 and 38). Factor-4 evaluates the interference in private life (item 23). Factor-5 evaluates the commitment to work (items 29 and 30). The scale was prepared in a 7-point Likert type: between "Totally agree (7) and "Strongly disagree (1). Low scores obtained from the items and the scale indicate less exposure to mobbing behaviors, while higher ones indicate more excessive exposure to mobbing behaviors [9].

Mobbing assessment

Individuals were asked to evaluate the questions on the mobbing scale according to both the pre-pandemic period and the pandemic period. The scores calculated that resulted to have increased in the pandemic period, in comparison to the pre-pandemic period, were evaluated as an increase in mobbing, and unchanged or decreased scores were evaluated as no change in the mobbing status.

Statistical analysis

SPSS 22 Software was used in the analysis of the data. Qualitative data were presented as frequency and percentages, while quantitative data were given as arithmetic mean, standard deviation, median, and range. Kolmogorov-Smirnov Test was used to test the normality. Chi-square test, Wilcoxon test, and binary logistic regression tests were used in the analyses. A value of $p < 0.05$ was considered significant. Effect size values were accepted as <0.20 as small, $0.20-0.50$ as a medium, $0.50-0.80$ as large, and >0.80 as very large effects.

Results

The mean age of 399 health workers participating in the study was found to be 35.21 ± 7.72 (min. 21-max. 65), with a female ratio of 68%. The percentage of the participants under 40 years of age was 70.4% and that of married ones was 70.2%. The sociodemographic characteristics of the individuals participating in the study were given in Table 1.

It was found that the frequency of exposure of health workers participating in our study to any type of violence in the pre-pandemic period was 40.4%, with the most common type of violence exposed being verbal violence (31.1%), followed by

emotional (27.8%), physical (13.8%), economic (8%), and sexual (5%) violence. The frequency of exposure to psychological violence in the workplace in the pre-pandemic period was found to be 48.1% and 40% of the participants stated that the mobbing increased during the pandemic period: 6.5% of health workers participating in the study stated that their exposure to physical, 16.3% to verbal, 11.8% to sensory, 7.5% to economic and 1.5% to sexual violence increased during the pandemic period (Table 2).

Table 1. Sociodemographic characteristics of the participant health workers

Characteristics	Frequency n(%)
Sex	
Male/Female	128 (32.1) / 271(67.9)
Age	
20-39/40-59/ 60+	281(70.4) / 116(29.1) / 2(0.5)
Occupation	
Physician/Nurse/Other	250(62.7) / 92(23.1) / 57(14.2)
Marital status	
Married/Single/Widow-separated	280(70.2) / 105(26.2) /14(3.6)
Educational status	
High-school or lower/Bachelor or higher	21(5.3) / 378(94.7)
Family size	
Nuclear/Extended/Single	364(91.2) / 29(7.3) / 6(1.5)
Health care level	
Primary/Secondary/Tertiary	167(41.9) / 66(16.5) /166(41.6)

Table 2. The prevalence of domestic violence and mobbing in the pre-pandemic period and changes during pandemic period

PRE-PANDEMIC PERIOD	Yes(%)	No(%)	No idea(%)	
Exposure to any kind of violence	16(40.4)	216(54.1)	22(5.5)	
Physical Violence				
Personally exposed to domestic violence	55(13.8)	334(83.7)	10(2.5)	
Committed domestic violence	29(7.3)	362(90.7)	8(2.0)	
Verbal violence				
Personally exposed to domestic violence	124(31.1)	257(64.4)	18(4.5)	
Committed domestic violence	81(20.3)	300(75.2)	18(4.5)	
Emotional violence				
Personally exposed to domestic violence	111(27.8)	272(68.2)	16(4.0)	
Committed domestic violence	54(13.5)	329(82.5)	16(4.0)	
Economic violence				
Personally exposed to domestic violence	32(8.0)	358(89.7)	9(2.3)	
Committed domestic violence	16(4.0)	375(94.0)	8(2.0)	
Sexual violence				
Personally exposed to domestic violence	20(5.0)	373(93.5)	6(1.5)	
Committed domestic violence	1(0.3)	392(98.2)	6(1.5)	
Mobbing				
Personally exposed to domestic violence	192(48.1)	197(49.4)	10(2.5)	
DURING PANDEMIC PERIOD	Increased	Decreased	Unchanged	New onset
Physical Violence				
Personally exposed to domestic violence	26(6.5)	25(6.3)	337(84.5)	11(2.8)
Committed domestic violence	14(3.5)	16(4.0)	360(90.2)	9(2.3)
Verbal violence				
Personally exposed to domestic violence	65(16.3)	19(4.8)	306(76.7)	9(2.3)
Committed domestic violence	45(11.3)	20(5.0)	319(79.9)	15(3.8)
Emotional violence				
Personally exposed to domestic violence	47(11.8)	19(4.8)	325(81.5)	8(2.0)
Committed domestic violence	35(8.8)	13(3.3)	337(84.5)	14(3.5)
Economic violence				
Personally exposed to domestic violence	30(7.5)	8(2.0)	355(89.0)	6(1.5)
Committed domestic violence	18(4.5)	10(2.5)	365(91.5)	6(1.5)
Sexual violence				
Personally exposed to domestic violence	6(1.5)	7(1.8)	382(95.7)	4(1.0)
Committed domestic violence	4(1.0)	7(1.8)	385(96.5)	3(0.8)
Mobbing				
Personally exposed to domestic violence	160(40.1)	10(2.5)	214(53.6)	15(3.8)

When the exposure to psychological violence in the workplace before and during the pandemic was evaluated, it was found that the mobbing exposure scores increased statistically significantly during the pandemic period compared to the pre-pandemic period. The effect of the pandemic on mobbing exposure seemed to be small (E.S.=0.164). Considering the sub-factors of the mobbing scale; it was found that mobbing exposure had increased in all sub-factors except the “commitment to work” factor. During the pandemic period, it was found that among the mobbing scale sub-factors, the dimension of “relations with co-workers” was the most affected factor (Table 3).

When the relationship between the change in mobbing exposure during the pandemic period and the behavior of committing domestic violence was examined, it was found that the committing of verbal violence (20.9%), emotional violence (17.2%), and economic violence (8.6%) in the family was significantly more frequent in individuals with increased exposure to mobbing at work (Table 4).

In the binary logistic regression analysis established to predict any violence behavior during the pandemic period, the independent variables included in the model were age, sex, education, occupation, any violence behavior before the pandemic, an assignment related to COVID-19, spouse's occupation, and change in mobbing status. The forward RL method was used in the analysis. Among the independent variables included in the model, any violence behavior before the pandemic, change in the mobbing status, and age variables were found to contribute significantly to the model. The accuracy rate of the model was 84.6% and the overall explanatory rate was 32.6%. It was found that the most significant variable explaining the change in violence behavior during the pandemic period was committing any violence behavior in the pre-pandemic period. The risk of committing any domestic violence in the pandemic period increased 8.5 times among those who committed any violence in the pre-pandemic period and increased 4.77 times among those with increased exposure to mobbing (Table 5).

Table 3. Comparison of pre-pandemic and during pandemic mobbing scores

Factors	Pre-pandemic		During pandemic			
	X±S.D.	Median (range)	X±S.D.	Median (range)	E.S.	p
Relations with co-workers	35.17±17.95	30 (88)	38.84±21.24	34 (99)	0.186	<0.001
Threats and harassment	9.01±4.15	7(35)	9.07±4.24	7(35)	0.014	0.006
Obstacles related to work and career	24.98±13.68	21(61)	26.46±14.60	24(66)	0.104	<0.001
Interference in private life	1.68±1.28	1(6)	1.74±1.37	1(6)	0.045	0.001
Commitment to work	4.14±2.73	3(12)	4.05±2.71	3(12)	0.033	0.217
Total score	74.52±33.04	66(187)	80.32±37.25	73(199)	0.164	<0.001

Table 4. The relationship between committing violence and mobbing

MOBBING n (%)			
Physical Violence	Increased	Decreased	Unchanged
Increased	8(4.9)	1(1.6)	5(2.9)
Decreased	7(4.3)	3(4.9)	6(3.4)
Unchanged	142(87.1)	55(90.2)	163(93.1)
New onset	6(3.7)	2(3.3)	1(0.6)
Verbal violence			
Increased	34(20.9)	4(6.6)	7(4)
Decreased	9(5.5)	2(3.3)	9(5.1)
Unchanged	113(69.3)	51(83.6)	155(88.6)
New onset	7(4.3)	4(6.6)	4(2.3)
Emotional violence			
Increased	28(17.2)	3(4.9)	4(2.3)
Decreased	3(1.8)	2(3.3)	8(4.6)
Unchanged	124(76.1)	53(86.9)	160(91.4)
New onset	8(4.9)	3(4.9)	3(1.7)
Economic violence			
Increased	14(8.6)	1(1.6)	3(1.7)
Decreased	3(1.8)	3(4.9)	4(2.3)
Unchanged	144(88.3)	55(90.2)	166(94.9)
New onset	2(1.2)	2(3.3)	2(1.1)
Sexual violence			
Increased	1(0.6)	1(1.6)	2(1.1)
Decreased	1(0.6)	2(3.3)	4(2.3)
Unchanged	160(98.2)	57(93.4)	168(96.0)
New onset	1(0.6)	1(1.6)	1(0.6)

Table 5. Logistic regression models for predicting any violence behaviour during the pandemic period

	Model 1				Model 2		Model 3
	β	P	β	p	β	p	O.R. (%95 C.I.)
Pre-pandemic violence behaviour	2.007	<0.001	2.063	<0.001	2.150	<0.001	8.58 (4.35-16.94)
Change in mobbing			1.434	<0.001	1.563	<0.001	4.77 (2.41-9.44)
Age					0.058	0.012	1.06 (1.01-1.10)
Constant	-1.978		-2.737		-5.015		
Nagelkerke R²	0.210		0.299		0.326		
ΔR²			0.089		0.027		

Discussion

The measures implemented in the fight against the COVID-19 pandemic caused people to be locked at home, leading to a long time sharing between victims and perpetrators of domestic violence and an increased risk of domestic violence. Evidence on the increase in domestic violence during the pandemic period is limited [10]. Domestic violence, which was once considered a problem of private life, is now considered a crime. It is an important public health problem that affects the health and well-being of victims, their families, and communities [11]. This problem is thought to have increased during the pandemic period. One of the groups most affected by the pandemic is healthcare workers. Changes in the working conditions of health workers, increased risk of encountering the disease, higher mortality risk compared to the general population, increase in the possibility of mobbing due to the increased workload in health institutions adversely affect the work and family life of health workers.

In this study, it was investigated how health workers' perpetration and exposure to psychological violence at work and domestic violence were affected by the pandemic. Our study revealed that psychological violence increased in the workplace during the pandemic period and the effect of the pandemic on mobbing exposure was small. It was found that the most affected factor among mobbing sub-factors during the pandemic period was relations with a co-worker. Domestic verbal, emotional, and economic violence perpetrations were found to be significantly more frequent among people with increased exposure to mobbing during the pandemic period, and the risk of committing any domestic violence behavior had increased 4.77 times in people with increased exposure to mobbing.

In the Global Development Centre's April 2021 report the relationship between COVID-19 measures and violence against women and children during the pandemic in the low and middle-income countries was examined. The articles reviewed in this report pointed out an increase in violence. Evidence of increasing violence was presented in 12(80%) of 15 studies evaluating findings on violence against women from the pre-pandemic period to various stages of the pandemic. These rates were reported to be higher compared to previous studies [12]. In the meta-analysis conducted by Piquero et al., domestic violence was found to have increased during the COVID-19 pandemic, showing a moderate to a strong increase in domestic violence incidents between the pre-and post-quarantine periods. Eight of 37 studies included in the meta-analysis reported a decrease of 0.28% to 77% in domestic

violence, and an increase of 0.60% to 75% in 29 studies. The average result of 37 studies reporting an increase or decrease in domestic violence was 7.86% of the increase in domestic violence [13]. In a study conducted in Peru, it was reported that domestic violence against women had increased by 48% between April and July 2020, and there was need to determine policies for reducing the negative impact of stay-at-home orders on women's safety [14]. Some countries in Latin America reported a significant increase in emergency hotline calls to report domestic violence incidents by 50% in Brazil, 40% in Argentina, and 60% in Mexico [15]. Porter et al., reported an increase in domestic physical violence by 8.3% during the period of restrictions due to the COVID-19 pandemic [16]. Studies conducted in the community indicated that both the pandemic itself and the measures taken in the context of the pandemic increased domestic violence during the pandemic period. In the literature, studies are revealing the effect of working conditions affected by the pandemic on psychological violence in the workplace and domestic violence among healthcare workers, who constitute one of the occupational groups most affected by the pandemic. Ozkan et al. found that mobbing had increased in nurses during the pandemic period with an exposure score of 61.6% [17]. Whether in times of prosperity or crisis, violence and harassment are unacceptable anywhere and at any time. In times of crisis, the risk of violence and harassment is even higher. The COVID-19 outbreak has been a reminder of this [18]. The results of our study showed that workplace violence was also reflected in domestic violence. Adibelli et al. investigated the change in domestic violence against women during the COVID-19 pandemic period including 332 women in the study and found higher emotional, verbal, and total violence scores among literate women. Emotional violence scores were higher in women who did not work and whose spouses did not work due to the pandemic. They concluded that emotional violence was higher during the pandemic period and it was triggered in case of the absence of an income-generating job [19].

The fact that the study was conducted on online platforms and included only people who participated voluntarily can be considered as a limitation of our study.

Conclusion

Our study revealed that the increase in psychological violence in the workplace increased domestic violence. The most prominent risk factor for domestic violence was the presence of previous violence behavior. The increase in the level of mobbing in the workplace was also found to be reflected in domestic violence,

increasing by approximately 4.8 times the risk of committing any domestic violence behavior. The perpetuation of domestic verbal, emotional, and economic violence was observed to increase significantly in people who were previously exposed to mobbing.

It may be recommended to develop strategies to reduce the impact of the pandemic on health workers, to provide consultancy services to cope with the conditions created by the pandemic, and to expand the existing services for the families of health workers.

Conflict of interests

The authors declare that there is no conflict of interest in the study.

Financial Disclosure

The authors declare that they have received no financial support for the study.

Ethical approval

The permission for the study was obtained from the ethics committee of Çukurova University Faculty of Medicine (decision no: 112).

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