**Violence against hospital workers during the COVID-19 pandemic in Israel: a cross-sectional study**

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**Keywords:** Healthcare workers, workplace violence, hospital, COVID-19, Israel

**Abstract**

**Background:** Workplace violence (WPV) against healthcare workers is a serious public health problem with profound implications, which has been worsening during the COVID-19 pandemic.

**Methods:** A cross-sectional study was performed via an online questionnaire with 486 workers at a governmental hospital in Israel. Data were collected about sociodemographic and occupational characteristics, exposure to different forms of WPV during the past six months, and the responsibility and reasons for WPV from the workers’ point of view.

**Results:** Approximately 71% were exposed to WPV, and 64% assumed that WPV escalated during the pandemic. The prevalence of verbal/psychological and physical WPV was 69% and 11%, respectively. The main reason for WPV was a long wait (70%). The escalation during the pandemic happened due to patients’ or relatives’ anxiety and mental state following COVID-19 (72%), an increase in waiting time since the pandemic began (54%), lack of hospital resources to take care of everyone (45%), and the inability to visit a critically ill relative who had COVID (44%). Increased exposure to WPV was attributed to less years of seniority, work at emergency or internal departments, and being a nurse or a doctor.

**Conclusions:** This study highlights the high prevalence of WPV against workers in an Israeli hospital. The findings raise an urgent need to develop strategies to decrease WPV in hospitals in all levels: national, organizational, and individual. Further research can focus on the effectiveness of innovative strategies and interventions to prevent violence against healthcare workers.

**Introduction**

Workplace violence (WPV) in healthcare settings has been acknowledged as one of the significant public health concerns due to its profound implications (Wang et al., 2020). WPV includes threats, verbal or physical abuse, sexual harassment, shaming, property corruption, beatings, and bullying (Arafa et al., 2021). It can cause physical and psychological damage, along with job dissatisfaction, anger, shame, anxiety, sadness, depression, insomnia, burnout, and turnover intentions (Hassankhani et al., 2018; Busch et al., 2021). Such consequences can result in abandonment of the profession (He et al., 2020), deteriorations in the quality of the provided health services and increased healthcare costs (McGovern et al., 2000).

During the first wave of the COVID-19 pandemic, healthcare workers were honored as heroes (Dopelt et al., 2021). Since then, patients (and the public) do not express the same appreciation. Professionals have been alerting for the past decade about the increase of violence against healthcare workers in industrial countries as well (Vento et al., 2020). It is apparent that the COVID-19 pandemic has further intensified the phenomenon (Devi, 2020; Xie et al., 2021; Rodrıguez-Bolanos et al., 2020; Bhatti et al., 2021; Bitencourt et al., 2021). Devi (2020) indicated that violence is often worsened in times of emergencies.

Various reasons may drive WPV against healthcare workers during the current pandemic. First, healthcare workers were accused of spreading the disease (Rodrıguez-Bolanos et al., 2020). Second, inadequate resources (ICU beds, oxygen tanks, ventilators) to admit or treat patients with COVID-19 caused anger (McKay et al., 2020). Third, misinformation about the COVID-19 pandemic led to panic, anxiety, and deep mistrust (Bhatti et al., 2020). Fourth, the spread of fake news on top of religious conservatism and ignorance, sometime added to mistrust of science, pharmaceutical industry or political system rendered and promoted conspiracy theories (e.g., injection of nanochips in the guise of a COVID-19 vaccine) (Martins et al., 2020). Fifth, bureaucracy, long waiting periods, inappropriate waiting sites, and lack of communication with healthcare workers were problems before the pandemic and exacerbated as the pandemic got progressed with frequent changes in pandemic regulations and pandemic fatigue (Vento et al., 2020).

In a systematic review, Pompeii et al. (2013) reported that between 2% to 32% and 22% to 90% of hospital workers experienced physical violence and verbal abuse, respectively. In a meta-analysis, Liu et al. (2019) found that between 27% to 45% of nurses worldwide have experienced physical and non-physical violence. WPV against healthcare workers (mainly physicians and nurses) was also reported by previous studies conducted in Switzerland (50%) (Hahn et al., 2012), Israel (58%) (Itzhaki et al., 2015), Saudi Arabia (58%) (Alsaleem et al., 2018), and Australia (71%) (Cashmore et al., 2012).

Byon et al. (2021) found that during a 5-month period at the beginning of the COVID-19 pandemic in the United States, 44% and 68% of the R.N.s reported experiencing physical violence and verbal abuse, respectively. Moreover, approximately one-fifth of participants said they experienced more violence during the pandemic than before. In two public hospitals in Southern Egypt, a survey among physicians and nurses revealed that, during the past six months of the COVID-19 pandemic, 43% reported exposure to psychological WPV, and 10% reported exposure to physical WPV. The relatives of patients were the perpetrators in 75% of psychological WPV and 90% of physical WPV (Arafa et al., 2021). In Brazil, Bitencourt et al. (2021) found that violence against health professionals during the pandemic was reported in a survey by 48% of participants. In Pakistan, 38% experienced violence in the last six months, 34% experienced verbal violence, and 7% physical violence (Shaikh et al., 2020). In a governmental hospital in Jordan, 66% reported exposure to WPV, mainly verbal violence (52%), while patients’ relatives were the principal perpetrators in most incidents (Ghareeb et al., 2021).

WPV against healthcare workers is a complicated problem (Phillips, 2016). It has serious implications for workers and, consequently, the healthcare system in general (Hassankhani et al., 2018; Busch et al., 2021; He et al., 2020; McGovern et al., 2000). The alarming increase in WPV against healthcare workers during the COVID-19 pandemic urges the need to understand, prevent, and address these events, and identify the predictors of violence, especially during the outbreak of pandemics. Previous studies reported high levels of psychological and physical WPV against hospital workers in different countries. However, the incidence of forms of WPV in Israeli hospitals during the COVID-19 pandemic has not been assessed yet. The current study aims to examine the incidence of different types of WPV in a public hospital in Israel during the COVID-19 pandemic and analyze the factors associated with their occurrence.

**Methods**

A cross-sectional study was conducted among Barzilai University Medical Center healthcare workers during November and December 2021. Barzilai University Medical Center is a Governmental Hospital that contains 567 beds and an additional 60 day-patient beds. The study was approved by the Ashkelon Academic College Ethics Committee (approval #34-2021) and the hospital management.

**Research population and sample**

The hospital employs around 1,900 staff members, including approximately 300 physicians and 800 nurses. A link to the survey was sent to all Barzilai University Medical Center workers via email from the human resources department on Nov 10, 2021. Every two weeks a reminder was sent to increase the response rate for a total of 3 reminders. The survey closed on Dec 29, 2021. Within the convenience sample, 486 staff members from all sectors who completed at least 95% of the survey (26% response rate) were included in the study. A comparison between sample characteristics (in terms of sex, age composition, and profession) and human resources department data revealed that the characteristics of nonrespondents were not statistically different from the respondents.

**Study tools**

The online survey comprised 18 questions taken from the Israeli Medical Association (IMA) WPV-questionnaire. The translated questionnaire is provided as supplementary 1. For validation purposes, the questionnaire was given to two physicians, three nurses, two social workers, and two medical secretaries from various departments, gender, and ethnic origins from another hospital for their evaluation. They wrote their comments, and five questions were corrected according to the comments. The questionnaire included several sections, as per the following details:

1. Demographic and occupational details- 9 questions regarding gender, marital status, religion, age, country of birth, profession, seniority, department, and work in the Coronavirus ward.
2. Exposure to seven different forms of WPV in the last six months- verbal violence, verbal threats, passive-aggressive behavior (intrusion into personal space, facial expressions), destruction of property in protest (throwing a chair, breaking an instrument), physical violence, sexual harassment, and "shaming" on the Internet (such as social networks). Participants were asked to mark for each statement: (a) I did not experience; (b) experienced due to a patient; (c) experienced by a person accompanying a patient. A new measure was produced to compare the rate of WPV experience between groups - “exposure to violence” - defined as being exposed to at least one event in the past six months.
3. Reasons for violence in the hospital, in their judgment- the participants could choose eight given reasons and an option to indicate other reasons, such as dissatisfaction with the attitude/treatment of the staff, alcohol effects, long wait, or uncomfortable physical conditions.
4. Contribution to the violent incidents in the hospital- participants were asked to indicate for each category: patient's behavior, accompanied behavior, participant behavior, and medical staff behavior- the extent of the contribution to the violent incidents. It was measured on the Likert Scale, ranging from (1) not at all to (5) to a very great extent.
5. Unique reasons for violence during the COVID-19 pandemic- two questions: First, do you think the number of cases of violence against hospital workers: (1) decreased compared to the period before the COVID-19 outbreak. (2) remained the same. (3) increased. (4) I don’t know. Second, what do you think can cause an increase in the number of hospital violence incidents during the COVID-19 pandemic? More than one answer could be marked: patients’ or relatives’ anxiety and mental state following COVID-19; lack of hospital resources to take care of everyone etc.
6. Responses to violence- 4 Questions: were you absent from work due to a violent incident you experienced? (yes / no), did you turn to emotional support due to a violent incident you experienced? (yes / no), do you feel the hospital management tries to prevent WPV against the hospital workers? (5-point scale), and an open-ended question: What do you think can be done to prevent WPV against hospital staff?

**Analysis of data**

The data were processed anonymously using the SPSS v.26 software (IBM, Armonk, NY, USA). To adjust for sampling biases and ensure that the sample was representative, we compared and found no significant differences between respondents and nonrespondents for sex, age, profession, and seniority. The exploratory data analysis demonstrated that the data were normally distributed, and parametric statistical tests were used. We compared the survey responses by testing differences between professions and departments using chi-squared tests. Finally, logistic regression was conducted to predict the odds ratio for being exposed to WPV. All reported p-values are based on 2-sided tests and were considered significant when below 0.05.

**Results**

**Sample characteristics**

Table 1 shows the characteristics of the sample. As Table 1 illustrates, most respondents were female (according to their relative share among the hospital workers), partnered, Jewish, and Israeli-born. Twenty-nine percent worked during the survey/have worked before the study in coronavirus wards. The common profession was nursing (42%, similar to the relative percent of nurses out of all hospital staff). Physicians accounted for 21% of the total sample (slightly higher than their percentage of all hospital staff - 16%). The age of the participants ranged from 21 to 73 (average 42±11.98), and the seniority ranged from 0.5-47 years (average 15±2.34).

@Table 1. here

**Exposure to different forms of WPV**

Table 2 shows the distribution of the exposure to various forms of WPV as indicated by participants.

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The number of forms of violence that each participant experienced was counted. We found that 32% (n=154) were exposed to 1-2 forms of violence, 31% (n=151) were exposed to 3-4 forms of violence, and 8% (n=41) were exposed to 5-7 forms of violence. Overall, 29% (n=140) were not exposed to WPV, while 71% (n=346) were exposed to at least one event in the past six months before the survey.

Chi-squared tests revealed significant differences between professions (χ2=28.91, p<0.001), departments (χ2=40.50, p<0.001), and work at coronavirus ward (χ2=19.73, p<0.001). Of the professions, the proportion of nurses exposed to at least one type of violence was the highest, followed by physicians and others (81%, 78%, 57%, respectively). Almost all emergency department workers were exposed to violence, followed by internal ward workers and finally the others (93%, 85%, 61%, respectively). Of those who work / have worked in the Coronavirus department, 86% were exposed to at least one type of violence, compared to 65% of those who had never worked in this department.

No significant differences were found between gender, religion, being in a relationship, and country of birth.

**Reasons for WPV against hospital workers**

The main reason for WPV against the hospital workers indicated by participants was a long wait (70%), the patient/companions arrived at the treatment angry in advance (59%), dissatisfaction with the attitude of the treating staff (57%), bureaucracy (49%), dissatisfaction with the treatment (48%), uncomfortable physical conditions (36%), alcohol/medications/drugs effects (33%), racism (29%), and communication problems (20%).

After the participants who marked "I don’t know" were removed (109 participants), 64% assumed that the number of violent incidents increased compared to the period before the COVID-19 outbreak, 28% thought it remained the same, and the others felt it decreased (8%). They were asked what they believe can cause an increase in the number of hospital violence incidents during the COVID-19 pandemic. The leading cause was patients’ or relatives’ anxiety and mental state following COVID-19 (72%), an increase in waiting time since the pandemic began (54%), lack of hospital resources to take care of everyone (45%), inability to visit a critically ill relative who had COVID (44%), and the prohibition of more than one attendant per patient (40%).

**Contribution to the violent incidents in the hospital**

Table 3 shows the distribution of the contribution to the WPV as evaluated by the participants.

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Participants estimate that the accompanies and patients have the highest contribution to hospital violence incidents. However, they certainly recognize both the responsibility of the staff and their own contribution to the formation of violent events.

**Logistic regression model**

Logistic regression was performed to examine the influence of the department, profession, and seniority on the exposure to WPV. The regression model was significant (χ2=79.25, p<0.001). The model explained 23% of the variance in exposure to WPV (Nagelkerke R2). It was found that seniority lowers the chance of being exposed to WPV, working in the emergency department increases the chance by 630% to be exposed to WPV, working in the internal department increases the chance by 105%, being a nurse increases the chance by 258%, and being a physician increases the chance by 229%. Table 4 shows the Odds Ratio to be exposed to WPV.

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**Responses to violence**

Five percent were absent from work following an incident of violence against them, and a similar percentage turned to emotional assistance. About a third (31%) feel that the hospital management tries to deal with WPV to a small extent, 30% to a moderate extent, and the rest thinks that the hospital management really tries to deal with this severe phenomenon. The open-ended question ‘what do you think can be done to prevent WPV against hospital staff’ was answered by 234 participants. The answers were coded (some participants wrote a few responses). Additional security was indicated by 36% of participants. About a third (32%) wrote better communication and humane treatment, patience, improving service, and providing explanations for lowering stress and anxieties. Nearly 19% indicated that more staff should be added so that waiting times and the frustration caused by the long wait will be reduced, and also in order for there to be less burnout among staff, which will contribute to more patience towards patients and families. 16% argued that the punishment should be aggravated in order to deter the violence. A tenth thought that waiting times and bureaucracy should be shortened. Nine percent claimed that waiting and hospitalization conditions should be improved; management should support staff; all the population should be educated to respect the medical staff and visiting hours should be limited.

**Discussion**

Our study was conducted just after the fourth wave (mainly Delta variant) and before the start of the fifth wave (mainly Omicron), thus answers reflected mainly what happened during the fourth wave when vaccines were already available yet the spread was faster than previous waves, and both the public and healthcare workers suffered from pandemic fatigue. As found in Byon et al. (2021(, participants estimated that the incidents of violence escalated during the pandemic (64%). More than two-thirds of the participants (71%) reported having experienced WPV six months before the survey. Healthcare workers are sixteen times more likely to suffer from WPV than other professions, and hospitals are the main settings where it happens (Li et al., 2018). It is possible that the combination of the profession (healthcare workers), the setting (hospital), and the escalation during the COVID-19 pandemic led to such a high incidence of WPV. Healthcare workers who experienced WPV are more prone to job dissatisfaction, burnout, and mental health problems (Andersen et al., 2021; Wang et al., 2020; Hassankhani et al., 2018; Busch et al., 2021; D'Ettorre et al., 2018; Cannavò et al., 2019; Liu et al., 2018). In the context of the pandemic, exposure to WPV may worsen the already existing stress and burnout that hospital workers face (Dopelt et al., 2021).

Previous studies conducted during the COVID-19 pandemic used several tools and definitions of WPV among various healthcare professions and different assessment durations. Therefore, it is hard to compare our findings to previous results. Nevertheless, it seems that the prevalence of forms of WPV found in the current study is higher than the prevalence observed in other countries (Arafa et al., 2021; Bitencourt et al., 2021; Shaikh et al., 2020; Ghareeb et al., 2021; Aljohani et al., 2021). Participants estimated that the primary contributor for violence was the patient's accompanied behavior, as found in previous studies (Arafa et al., 2021; Ghareeb et al., 2021; Alharbi et al., 2021). However, we found similar incidences of violence perpetrated by patients and by relatives (Table 2).

Nurses experienced the highest WPV (81%) followed by physicians (78%) (compared to 57% among others), as both professions are in the frontline, involve in direct patient care. These findings are in line with previous studies (U.S. Bureau of Labor Statistics, 2020; Liu et al., 2019; Alsaleem et al., 2018; Alharbi et al., 2021; Civilotti et al., 2021; Aljohani et al., 2021). Almost all emergency department workers were exposed to violence, followed by internal ward workers and finally the others (93%, 85%, 61%, respectively). E.D.s are at high-risk for WPV, compared to other healthcare settings (Ferri et al., 2016; Stowell et al., 2016; Aljohani et al., 2021). In a meta-analysis, D'Ettorre et al. (2018) found that 32 studies showed a prevalence of 24% and 89% of healthcare workers on E.D.s had been victims of WPV by a patient at some stage in the past 12 months. According to Alharbi et al. (2021), 40% of those who experienced WPV did not report to the hospital management, mainly because it was perceived as “would not change anything.” Underreporting WPV incidents is a global problem (Arnetz et al., 2015; Byon et al., 2020), so we can carefully assume that our findings are just the “tip of the iceberg.” The logistical regression reinforced these findings. It also reinforced the idea that workers with higher seniority are less exposed to WPV, as was found in several other studies (Li et al., 2018; Shapiro et al., 2022; Sharipova et al., 2010). As proven by other studies, professional experience improves the ability to manage conflict situations with angry patients (Xie et al., 2021). In a scoping review, Civilotti et al. (2021) demonstrated that the prevalence of WPV against healthcare workers in Italy is high, especially in emergency departments and among nurses and physicians.

Long wait, dissatisfaction, bureaucracy, and alcohol/medications/drugs effects were frequent determinants of WPV. These findings are consistent with the WPV literature (D'Ettorre et al., 2018; Wu et al., 2015; Stowell et al., 2016). The leading causes for the deterioration in WPV during the pandemic were anxiety and mental state following COVID-19 (Bhatti et al., 2020), an increase in waiting time (Vento et al., 2020), and a lack of hospital resources (McKay et al., 2020).

To prevent the WPV in the hospital, the participants suggested strengthening the hospital's security system. Moreover, better communication skills can prevent violence along with increasing the workforce in all professions. It will solve the long waiting and frustration of patients and accompanies. In addition, there will be less pressure on the staff, resulting in less burnout and more patience towards the patients. This coincides with the finding that the participants took responsibility and said that both the staff behavior and their behavior contributed to the incidents of violence. Wu et al. (2015) demonstrated the association between workload and WPV. High-stress situations and daily overload were related to WPV. The researchers explained the mechanism: high job demand and overload lead to poor-quality care and, consequently, to frustrated patients, which is one of the leading causes of WPV. There is a vicious cycle between the experience of WPV that affects the attitudes of these healthcare workers, which results in a higher probability of new events of violence (Bitencourt et al., 2021). Thus, WPV must be prevented and condemned out of a mission to create a safer environment in hospitals by adopting a “zero tolerance” attitude concerning violence against healthcare workers.

**Study limitations**

Several limitations should be noted while interpreting results. First, the study is a cross-sectional study; hence, inferences of causality cannot be made. Second, we used self-report measures to collect data. Tools such as this can be biased due to selection bias or social desirability. However, the nature of anonymity can prevent those biases. Finally, the study was conducted in one hospital, which can affect the generalizability of the study’s findings. Nevertheless, studies conducted in numerous hospitals can help replicate the current results.

**Conclusions**

This study is essential in raising awareness of the need to mitigate WPV against healthcare workers in Israel and globally. The need for such awareness and structural changes have increased unfortunately during the current public health emergency due to rise of infodemics that lead to threats over healthcare officials and field workers and public healthcare overwhelmed systems that are underfunded due to cutting budgets and bad priorities. Political instability and growing mistrust among all stakeholders also are important contexts that need to be taken into consideration. Unfortunately, violence against healthcare workers is not a new phenomenon that started with the COVID-19 outbreak. WPV has only escalated since the onset of the pandemic, along with higher workplace demands, workload, and anxiety due to the pandemic. Violent events further worsen these notions. As a result, national, organizational, and individual interventions should be applied. For instance, the government should promote and strongly enforce harsher legislation, including punishment for the aggressors. Today, the police and the courts are easing their heads on the phenomenon, and the attackers are hardly punished. Moreover, additional resources should be allocated to increase the number of hospitals staff to alleviate workload and waiting times. Hospital leadership should be committed to ensuring a safer environment for the workers and improving security arrangements, especially in departments prone to violence, like E.D. The hospital needs to invest in workshops and training for improving workers’ communication skills. Workers need to be trained to identify potential violence early on and thus prevent incidents of violence, especially when they have admitted in a survey that the staff’s behavior contributes to the formation of violent incidents. Staff can improve empathetic and considerate care, which in turn may reduce WPV. Additionally the question of trust and political context should be taken into consideration when addressing WPV, within the specific local context. Further research can focus on the effectiveness of innovative strategies and structural interventions to prevent violence against healthcare workers.

**Funding**

N/A

**Conflict of interest**

The authors declare no Conflict of interest

**Key-points**

* Workplace violence against healthcare workers is a serious public health problem, which has been escalating during the COVID-19 pandemic.
* The main reason for workplace violence in hospitals is long waiting. The escalation during the pandemic happens due to patients’ or relatives’ anxiety and mental state following COVID-19.
* Increased exposure to workplace violence was attributed to less years of seniority, work at emergency or internal departments, and being a nurse or a doctor

**Data availability**

The data underlying this article are available in the article and in its online supplementary material.

**Supplementary 1 – Questionnaire**

In light of the many cases of violence against healthcare workers, this questionnaire is designed to study the level of exposure to violence among hospital workers. Filling out the questionnaire will take about 5 minutes and is voluntary and anonymous. Completing the questionnaire constitutes consent to participate in the survey. For questions, please contact Dr. Keren Dopelt by email dopelt@bgu.ac.il. Thank you for your cooperation!

1. Gender: 1. Male 2. Female 3. I don’t want to answer

2. Marital status: 1. In a relationship 2. I am not in a relationship

3. Religion: 1. Jew 2. Muslim 3. Christian 4. Atheist 5. Other: \_\_\_\_\_

4. Age: \_\_\_\_\_\_\_

5. Country of birth: 1. Israel 2. Former USSR 3. Other: \_\_\_\_\_\_\_\_\_\_

6. Profession: \_\_\_\_\_\_

7. Seniority in the profession: \_\_\_\_\_\_\_ years

8. Department: \_\_\_\_\_\_\_\_\_\_\_\_\_

9. Do you work in the Corona department? 1. Yes 2. I worked in the previous waves 3. No

10. Have you experienced violence of the following forms in the last six months?

|  |  |  |  |
| --- | --- | --- | --- |
| Forms of WPV | I did not experience | Experienced by a patient | Experienced by a person accompanying a patient |
| Verbal violence |  |  |  |
| Verbal threats |  |  |  |
| Passive aggressive behavior |  |  |  |
| Destruction of property in protest |  |  |  |
| Physical violence |  |  |  |
| Sexual harassment |  |  |  |
| "Shaming" on the Internet |  |  |  |

11. In your opinion, what are the reasons for violent incidents in the hospital? (More than one answer can be marked): Dissatisfaction with the attitude of the staff; Dissatisfaction with the care of the treating staff; Effect of alcohol/drugs; The patient/his companions came angry to the hospital; Racist perception; Long wait; Uncomfortable physical conditions; Long bureaucratic processes; Language/ communication problems; Other: \_\_\_

12. In your opinion, to what extent does each factor contribute to the formation of violent incidents in the hospital?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1. Not at all | 2. To a small extent | 3. To a moderate extent | 4. To a great extent | 5. To a very great extent |
| Patient behavior |  |  |  |  |  |
| attendants’ behavior |  |  |  |  |  |
| Your behavior |  |  |  |  |  |
| Behavior of the staff |  |  |  |  |  |

13. Do you think the number of violent incidents against hospital workers: 1. Decreased relative to the period before COVID-19. 2. remains the same. 3. Rose during the COVID-19 pandemic 4. I do not know

14. What do you think can cause an increase in the number of violent incidents in the hospital during the COVID-19 pandemic? (More than one answer can be marked): Anxiety and mental state of patients and attendants following COVID; Lack of hospital resources to take care of everyone because COVID patients need to incite many resources of money and workforce; An increase in waiting time for treatment since COVID-19 outbreak; The order of not than one attendant per patient; Inability to meet with a sick relative who has COVID; Other: \_\_\_\_\_\_

15. Did you happen to be absent from work due to a violent event you experienced? 1. Yes 2. No 3. I do not remember

16. Did you turn to emotional help due to a violent event you experienced? 1. Yes, to \_\_\_\_\_ 2. No 3. I have not experienced a violent event

17. Do you feel that the hospital is dealing with violence against hospital staff? 1. Not at all 2. to a small extent 3. to a moderate extent 4. to a great extent 5. to a very great extent

18. What do you think can be done to prevent violent events against hospital staff? \_\_\_\_\_\_\_\_\_\_

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Table 1. Study sample characteristics (n=486)

|  |  |  |
| --- | --- | --- |
| Characteristics | N | % |
| Male  Female | 146  340 | 30  70 |
| In a relationship | 369 | 76 |
| Religion:  Jewish  Muslim  Christian  Atheist  Other | 388  52  10  23  13 | 80  10  2  5  3 |
| Place of birth:  Israel  Former USSR  Other | 316  125  45 | 65  26  9 |
| Working/have worked in coronavirus ward | 139 | 29 |
| Role:  Physician  Nurse  Other (management and housekeeping, computing, auxiliary staff, laboratory) | 100  205  181 | 21  42  37 |
| Most common departments:  Internal  Emergency Department  Other (gynecology, cardiology, children, labs, management, etc.) | 99  80  307 | 20  16  64 |

Table 2. Exposure to various forms of WPV

|  |  |  |  |
| --- | --- | --- | --- |
| Forms of WPV | Experienced by a patient | Experienced by an accompanying | Experienced by a patient or accompanying or both |
| Verbal violence | 45% | 46% | 63% |
| Passive-aggressive behavior | 37% | 38% | 55% |
| Verbal threats | 26% | 28% | 40% |
| Destruction of property in protest | 12% | 9% | 17% |
| Physical violence | 8% | 6% | 11% |
| Sexual harassment | 7% | 3% | 9% |
| "Shaming" on the Internet | 4% | 4% | 6% |

Table 3. Contribution to the violent incidents in the hospital

|  |  |  |  |
| --- | --- | --- | --- |
| Category | To a small extent (answers 1+2) | To a moderate extent (answer 3) | To a very great extent (answers 4+5) |
| Accompanied Behavior | 6% | 15% | 79% |
| Patient's Behavior | 15% | 22% | 63% |
| Staff Behavior | 34% | 23% | 43% |
| Participant Behavior | 47% | 19% | 34% |

Table 4. Logistic regression model to predict exposure to WPV

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Predictors | B | S.E. | Wald | df | Sig. | Exp(B) |
| Seniority | -.031 | .009 | 10.760 | 1 | .001 | .969 |
| Physician | 1.190 | .326 | 13.284 | 1 | .000 | 3.287 |
| Nurse | 1.276 | .264 | 23.370 | 1 | .000 | 3.581 |
| Internal dep. | .719 | .329 | 4.778 | 1 | .029 | 2.052 |
| E.D. | 1.988 | .455 | 19.090 | 1 | .000 | 7.301 |
| Constant | .311 | .229 | 1.844 | 1 | .174 | 1.365 |