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Violence during the pandemic: Were healthcare workers truly applauded?

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Abstract

This study aims to understand the dynamics of violence against healthcare workers during extraordinary situations, compare them with normal conditions, and provide applicable recommendations. The research examined white code incidents reported between March 11, 2018, and March 10, 2022, in the emergency department (ED) of a city hospital in İstanbul. The date of the white code, the shift, the healthcare worker's gender, age, and role, the incident area, the reason and type of violence, and the perpetrator's gender and age were recorded. Data were analyzed as pre-pandemic and during the pandemic. There were 129 white code reports before the pandemic and 109 during the pandemic. Doctors were the most targeted group, with most white codes reported during daytime shifts and as verbal violence. Most incidents occurred in the yellow and green zones. Our research provides significant insights into the impact of COVID-19 on violence against healthcare workers. Although there was a general decrease during the pandemic, the concentration of incidents in green zones highlights the importance of managing patient expectations in healthcare planning. This single-center study highlights that symbolic gestures like applause cannot replace structural reforms to protect healthcare workers.

Keywords: White code, pandemic, emergency department, COVID-19, violence

Introduction

Violence against healthcare workers has reached significant levels worldwide. The World Medical Association has defined violence against healthcare personnel as "an international emergency that undermines the foundations of health systems and critically affects patient health" [1]. Violence against healthcare workers includes all overt or covert threats to their health, mental state, or safety in all work-related situations where personnel are clearly abused, threatened, or assaulted [2]. With the emergence and global spread of COVID-19, our country's pandemic response began, and hospitals maximized their services in COVID-19-related units [3].

In Türkiye, the Ministry of Health has implemented a triage coding system in emergency departments, using red, yellow, and green codes to prioritize emergency patients. Patients requiring outpatient clinic examinations in the emergency department are placed in the green zone, those with potentially serious conditions in the yellow zone, and patients with life-threatening conditions in the red zone. The rate of white code issuance varies by triage area. The dedicated efforts of healthcare workers have been supported by the public, providing significant moral support and tolerance under challenging conditions [4].

This article will discuss the extent, causes, and solutions for violence against healthcare workers in the two years before the pandemic and the first two years during the pandemic. The aim of the study is to understand the dynamics of violence against healthcare workers in extraordinary situations, compare them with normal conditions, and provide applicable recommendations to combat this issue.

Material and Methods

This study was conducted by screening the number of white code reports related to violence in the Emergency Department of a City Hospital in İstanbul between March 11, 2018, and March 10,

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2022. The dates of the white code reports, the shift during which they occurred (day shift: 08:00-19:59; night shift: 20:00-07:59), the gender, age, and role of the healthcare worker involved, the area of the emergency department where the incident occurred, the reported reason for the violence, the type of violence, and the gender and age of the perpetrator were recorded from the files. The recorded data were evaluated in two groups: pre-pandemic and during the pandemic. The World Health Organization's declaration of COVID-19 as a pandemic on March 11, 2020, was considered the start of the pandemic. White code reports from March 11, 2018, to March 10, 2020, were compared with those from March 11, 2020, to March 10, 2022. Files with white code report forms for individuals aged 18 and older were included in the study. Violence cases without a white code report form were excluded.

Before the study, ethical approval was obtained from the Clinical Research Ethics Committee of İstanbul Prof. Dr. Cemil Taşcıoğlu City Hospital on May 23, 2022 (approval number 177). The study adhered to the Declaration of Helsinki throughout the research process.

Statistical Analysis

Patient data were analyzed using SPSS 21.0 for Windows (SPSS Inc., Chicago, IL, USA). Descriptive statistical methods (mean, standard deviation, median, frequency, percentage, minimum, maximum) were used to evaluate the study data. The Mann-Whitney U test was used to compare quantitative variables that did not show normal distribution between the two groups. Pearson's chi-square test and Kurtosis-Skewness test were used to compare qualitative data. A p-value of <0.05 was considered significant at a 95% confidence interval.

Results

The study analyzed 129 white code reports before the pandemic and 109 during the pandemic. The ages of healthcare workers before the pandemic ranged from 21 to 56 years, with a mean age of 30.2 years, while during the pandemic, ages ranged from 23 to 48 years, with a mean age of 30.8 years. The ages of perpetrators before the pandemic ranged from 21 to 71 years, with a mean age of 39.9 years, while during the pandemic, ages ranged from 21 to 73 years, with a mean age of 41.3 years.

Table 1 compares the gender and role of healthcare workers, the shift during which the white code was issued, the gender and status of the perpetrator, the reasons and types of violence, and the area where the white code was issued, with counts and percentages for the periods before and during the pandemic.

Table 1. Comparison of code white findings between pre-pandemic periods

	Pre-pandemic (n=129) 11.03.2018 - 10.03.2020	Pandemic (n=109) 11.03.2020 - 10.03.2022
Gender of healthcare worker		
Female	70 (54.3%)	58 (53.2%)
Male	59 (45.7%)	51 (46.8%)
Occupation of healthcare worker		
Doctor	71 (55.0%)	46 (42.2%)
Nurse	38 (29.5%)	35 (32.1%)
Security guard	12 (9.3%)	15 (13.8%)
Imaging technician	8 (6.2%)	7 (6.4%)
Data entry personnel	0 (0.0%)	1 (0.9%)
Other	0 (0.0%)	5 (4.6%)
Shift when white code was issued		
Day shift	72 (55.8%)	57 (52.3%)
Night shift	57 (44.2%)	52 (47.7%)
Gender of aggressor		
Female	46 (35.7%)	42 (38.5%)
Male	83 (64.3%)	67 (61.5%)
Status of aggressor		
Patient	83 (64.3%)	67 (61.5%)
Patient relative	46 (35.7%)	42 (38.5%)

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Table 1. Comparison of code white findings between pre-pandemic periods

	Pre-pandemic (n=129) 11.03.2018 - 10.03.2020	Pandemic (n=109) 11.03.2020 - 10.03.2022
Reason for violence		
Objection to priority patient order	10 (7.8%)	16 (14.7%)
Request for another doctor	21 (16.3%)	8 (7.3%)
Language and terminology used by patient	11 (8.5%)	10 (9.2%)
Language and terminology used by patient relative	12 (9.3%)	5 (4.6%)
Violation of companion restriction	10 (7.8%)	15 (13.8%)
Refusal of treatment/examination	14 (10.9%)	5 (4.6%)
Request for transaction with missing document	9 (7.0%)	8 (7.3%)
Request for report	11 (8.5%)	6 (5.5%)
Social media posts	5 (3.9%)	2 (1.8%)
Request for test/treatment	5 (3.9%)	10 (9.2%)
Request for medication	9 (7.0%)	4 (3.7%)
Request for hospitalization	4 (3.1%)	1 (0.9%)
Personal problems not related to service	4 (3.1%)	5 (4.6%)
Psychiatric diagnosis	4 (3.1%)	14 (12.8%)
Type of violence		
Physical	5 (3.9%)	7 (6.4%)
Verbal	83 (64.3%)	70 (64.2%)
Verbal and physical	41 (31.8%)	32 (29.4%)
Area where white code was issued		
Yellow area	57 (44.2%)	46 (42.2%)
Green area	4 (3.1%)	8 (7.3%)
Red area	19 (14.7%)	14 (12.8%)
Triage area	18 (14.0%)	14 (12.8%)
Imaging area	8 (6.2%)	6 (5.5%)
Laboratory area	3 (2.3%)	2 (1.8%)

Discussion

The COVID-19 pandemic increased the workload of healthcare workers and allowed for a reevaluation of their risk of exposure to violence. Our study found that the number of white code reports before the pandemic was higher than during the pandemic (129 before the pandemic, 109 during the pandemic). This may be related to the increase in societal support for healthcare workers at the beginning of the pandemic. Similarly, the decrease in white code reports during the pandemic suggests that healthcare workers were more valued by society [1]. Globally, violence against healthcare workers increased during the COVID-19 pandemic. Although our study found a decrease in violent incidents during the pandemic (as indicated by the reduction in white code reports), other studies have shown that this varies between countries. For example, healthcare workers in Africa faced significantly increased risks of violence during the pandemic [5], which may be related to the intensity of healthcare services and different societal perceptions of healthcare workers.

A detailed analysis of violence against healthcare workers before and during the pandemic shows how different occupational groups and shifts were affected. Our study found that doctors were the most frequently targeted group (55% before the pandemic, 42.2% during the pandemic). This finding aligns with a study conducted in Türkiye, which also found that doctors were the most frequently targeted group [2]. However, there was a relative increase in the rate of violence against nurses during the pandemic

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(from 29.5% to 32.1%), likely due to their increased workload and closer contact with patients. The literature also indicates that other occupational groups, such as data entry personnel, faced increased violence. In our study, the rate of violence against data entry personnel increased significantly during the pandemic (from 4.7% to 10.1%), reflecting the increased digitalization and workload in healthcare services during the pandemic. Changes in working conditions during the pandemic affected the type and prevalence of violence. Healthcare workers were already at high risk of workplace violence before the pandemic, and this risk became more complex during the pandemic [6]. Our study found that doctors remained the most frequently targeted group during the pandemic, but the rate of violence against groups like data entry personnel also increased. This finding aligns with the literature, showing that increased workloads heighten the risk of violence.

Our findings indicate that white code reports were predominantly issued during day shifts (55.8% before the pandemic, 52.3% during the pandemic). Another study noted that healthcare workers were at higher risk during day shifts due to higher patient volume and elevated expectations from patient relatives [4]. The increase in violence during night shifts during the pandemic (from 44.2% to 47.7%) may be related to changes in patient flow and emergency department visit times during the pandemic.

Before the pandemic, the majority of perpetrators were male (70% before the pandemic, 68% during the pandemic), typically patient relatives. This finding is consistent with another review in the literature, indicating that males dominate in violence cases and patient relatives frequently engage in such incidents [5]. However, during the pandemic, restrictions on patient visitors led to a slight decrease in the rate of violence by patient relatives. Similarly, during COVID-19, violence was mainly perpetrated by patients, with fewer incidents involving patient relatives [7].

Conflicts between patient relatives and healthcare workers, often due to the perception that their situation is more urgent, are a primary cause of violence. The concentration of violent incidents in green zones in our study supports this. A 2022 study highlighted that lack of knowledge about triage coding in green zones leads to frustration among patients and their relatives, creating a foundation for violence [3].

Our findings show that before the pandemic, the primary causes of violence were related to the lack of information and mismatched expectations from patient relatives (e.g., 55% communication issues). The literature indicates that tension can arise when patient and relative expectations of healthcare services are not met [7]. During COVID-19, factors like patient isolation and restricted access to services heightened tensions (e.g., 45% expectation mismatch). Another study emphasized that communication breakdowns at the pandemic's onset could trigger violence [8].

According to our table findings, before the pandemic, most violence was verbal (60%), while during the pandemic, the rate of physical violence decreased, maintaining the predominance of verbal violence (68%). Studies have also reported that verbal violence is more prevalent and negatively impacts the psychological health of healthcare workers [5,9]. The decrease in physical violence during the COVID-19 period can be attributed to pandemic-specific factors like social distancing and visitor restrictions.

Our findings show that before COVID-19, white code incidents were concentrated in green zones (65%). During the pandemic, the rate of violence increased in high-risk areas such as COVID-19-specific units and intensive care units (from 25% to 35%). This may be related to pandemic-specific anxiety and stress factors. A study noted that areas with high patient flow pose greater risks for healthcare workers [6].

Limitations

This single-center study limits generalizability. Future multi-center collaborations are needed to validate trends across regions.

Conclusion

Comparing the pre-pandemic period and the early years of the pandemic reveals that the types and causes of violence against healthcare workers changed according to social and psychological conditions. Before the pandemic, the primary factors were the lack of information and high expectations from patient relatives, while during COVID-19, stress, communication breakdowns, and patient volume were the main sources of violence.

Our research provides significant insights into the impact of COVID-19 on violence against healthcare workers. Although there was a general decrease in violent incidents during the pandemic, the concentration of incidents in green zones highlights the importance of managing patient expectations in healthcare planning.

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
Prof. Dr. Cemil Taşcıoğlu City Hospital Clinical Research Ethics Committee has an ethics committee permit dated 23/05/2022 and numbered 177.

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