



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

# The Shadow Epidemic: A Five-Year Retrospective Analysis of Workplace Violence and Aggression Pathways in a Psychiatric Hospital

## Görünmeyen Salgın: Bir Psikiyatri Hastanesinde İş Yeri Şiddeti ve Saldırganlığın Yolları Üzerine Beş Yıllık Bir Geriye Dönük Analiz

Cengiz Cengisiz<sup>1</sup>, Sevgi Nehir<sup>2</sup>

### Abstract:

Workplace violence (WPV) in psychiatric settings is a global crisis, yet its true prevalence is often obscured by systemic underreporting. This study analyzes officially documented incidents of violence in a psychiatric hospital to uncover underlying patterns of aggression and to estimate the magnitude of this reporting deficit. The aims were threefold: (1) to analyze the characteristics of officially reported violent incidents in a high-security Turkish psychiatric hospital over a five-year period; (2) to critically evaluate the observed incident rate against international benchmarks of comparable violence types to quantify the likely magnitude of underreporting; and (3) to delineate distinct aggression pathways based on the identities of those involved. The analysis was framed by specific Trauma-Informed Care (TIC) principles - safety, trustworthiness, transparency, and empowerment - to identify points of systemic failure. A retrospective analysis of all 51 Code White reports filed between January 1, 2018, and December 31, 2022, was conducted. Data were analyzed using descriptive statistics and Chi-Square tests of independence, with Cramer's V calculated to measure effect size. An exceptionally low annual incident rate was identified. Similar forms of violence were compared, and it was found that the rate of reported physical violence (0.55 incidents per 100 beds per year) was approximately 98.5% lower than international benchmarks for forensic psychiatric settings. Two distinct aggression pathways emerged: a "communication-frustration pathway," characterized by verbal aggression from patient relatives directed at physicians, and a "coercion-resistance pathway," characterized by physical aggression from patients directed at frontline staff. The association between the identity of the individual engaging in aggression and the type of violence was statistically significant and large ( $\chi^2(4, N=51) = 34.171, p < .001, \text{Cramer's } V = 0.579$ ).

**Keywords:** Workplace violence, Aggression, Underreporting, Psychiatric hospital, Forensic psychiatry.

<sup>1</sup>Manisa Mental Health and Diseases Hospital, Department of Psychiatry, Manisa, Türkiye.

<sup>2</sup>Manisa Celal Bayar University Faculty of Health Sciences, Department of Psychiatric Nursing, Manisa, Türkiye.

**Address of Correspondence/Yazışma Adresi:** Cengiz Cengisiz, Manisa Mental Health and Diseases Hospital, Department of Psychiatry, Manisa, Türkiye, E-mail: ccengisiz@gmail.com.

**Date of Received/Geliş Tarihi:** 15.04.2025, **Date of Revision/Düzeltilme Tarihi:** 09.01.2026, **Date of Acceptance/Kabul Tarihi:** 14.01.2026, **Date of Online Publication/Çevrimiçi Yayın Tarihi:** 25.03.2026

**Citing/Referans Gösterimi:** Cengisiz, C. & Nehir, S. (2026). The Shadow Epidemic: A Five-Year Retrospective Analysis of Workplace Violence and Aggression Pathways in a Psychiatric Hospital. *Cyprus Turkish Journal of Psychiatry & Psychology*, 8(1), 49-56, Doi: 10.35365/ctjpp. 26.1.07.

© 2026 The Author(s). Published by Cyprus Mental Health Institute / Cyprus Turkish Journal of Psychiatry and Psychology (www.ktpdergisi.com). This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 license, which permits use, sharing, adaptation, distribution, and reproduction in any medium or format, provided the original work is properly cited and is not used for commercial purposes. <http://creativecommons.org/licenses/by/4.0/>

**Öz:**

Bu çalışma, saldırganlığın altında yatan örüntüleri ortaya çıkarmak ve bu bildirim eksikliğinin boyutunu tahmin etmek amacıyla bir psikiyatri hastanesinde resmi olarak belgelenmiş şiddet olaylarını analiz etmektedir. Çalışmanın üç temel amacı bulunmaktadır: (1) Türkiye'de yüksek güvenlikli bir psikiyatri hastanesinde beş yıllık bir süre boyunca resmi olarak bildirilen şiddet olaylarının özelliklerini analiz etmek; (2) gözlemlenen vaka oranını, karşılaştırılabilir şiddet türlerini temel alan uluslararası ölçütlerle eleştirel bir şekilde karşılaştırarak bildirim eksikliğinin olası boyutunu nicelemek; ve (3) olaya karışan kişilerin kimliklerine dayalı olarak belirgin saldırganlık yollarını tanımlamak ve bu örüntüleri, sistemik başarısızlık noktalarını belirlemek amacıyla spesifik Travma Odaklı Bakım (TOB) ilkelerine (güvenlik, güvenilirlik, şeffaflık, güçlendirme vb.) dayalı bir çerçeveye analiz etmek. 1 Ocak 2018 ile 31 Aralık 2022 tarihleri arasında dosyalanan 51 "Beyaz Kod" raporunun tamamının geriye dönük bir analizi yapılmıştır. Veriler, tanımlayıcı istatistikler ve Ki-Kare bağımsızlık testleri kullanılarak analiz edilmiş, etki büyüklüğünü ölçmek amacıyla Cramer V değeri hesaplanmıştır. İstisnai derecede düşük bir yıllık olay bildirim oranı tespit edilmiştir. Benzer şiddet türleri karşılaştırıldığında, bildirilen fiziksel şiddet oranının (yıllık 100 yatak başına 0.55 olay) adli psikiyatri ortamları için uluslararası ölçütlerden yaklaşık %98.5 daha düşük olduğu bulunmuştur. İki belirgin saldırganlık yolağı ortaya çıkmıştır: hasta yakınları tarafından hekimlere yöneltilen sözel saldırganlıkla karakterize bir "iletişim-engellenme yolağı" ve hastalar tarafından ön saflardaki personele yöneltilen fiziksel saldırganlıkla karakterize bir "zorlama-direnç yolağı". Saldırgan davranışta bulunan kişinin kimliği ile şiddet türü arasındaki ilişki istatistiksel olarak anlamlı ve büyük bir etkiye sahiptir ( $\chi^2(4, N=51)=34.171, p<.001, \text{Cramer's } V=0.579$ ).

**Anahtar Kelimeler:** İş yeri şiddeti, Saldırganlık, Bildirim eksikliği, Psikiyatri hastanesi, Adli psikiyatri.

**Introduction**

Healthcare institutions face a disproportionately high risk of violence compared to other sectors, with some estimates suggesting a 16-fold greater likelihood of exposure. A meta-analysis involving over 333,000 participants found that 61.9% had experienced at least one episode of violence, with verbal abuse being the most common form (Liu et al., 2019). The consequences are severe, contributing to staff burnout, psychological distress, including post-traumatic stress disorder (PTSD), increased turnover, and a subsequent decline in care quality.

Within this broader landscape, psychiatric environments present a uniquely elevated risk for WPV. The confluence of acute mental illness, involuntary admissions, and restrictive inpatient conditions can create a volatile atmosphere conducive to conflict (Mento et al., 2020). This risk is further amplified in forensic psychiatric hospitals, which manage individuals with complex clinical-legal profiles, often detained by court order. The intersection of psychiatric symptoms with carceral elements can exacerbate patient distress and frustration, increasing the likelihood of aggressive behavior toward staff (Deniz & Yüksel, 2020). Research indicates that violence rates on forensic wards can be nearly double those on general acute psychiatric units (Nielssen et al., 2015), firmly establishing these settings as among the most hazardous in any industry.

Despite this high prevalence, the true incidence of WPV remains largely obscured by systemic underreporting. The metaphor of a "shadow pandemic," used by the United Nations to describe crises hidden by institutional silence particularly gender-based violence during the COVID-19 pandemic (UN Women, 2020) aptly characterizes WPV. Evidence suggests underreporting may reach 70%, with verbal aggression the most frequent form least likely to be documented (Arnetz et al., 2015). This reframes underreporting not as a methodological flaw but as a primary symptom of a dysfunctional organizational safety culture. Contributing factors include the normalization of aggression as "part of the job," fear of blame, cumbersome reporting procedures, and lack of meaningful follow-up,

all of which are shaped by broader institutional and socio-cultural dynamics (Büyükbayram & Okçay, 2013).

In Turkey, rising concerns over violence against healthcare workers led the Ministry of Health to implement the "White Code" (Beyaz Kod) system in 2013. This centralized mechanism allows any healthcare worker to trigger an immediate security response, with automatic reporting to the Ministry and public prosecutor for potential investigation (Sağlık Bakanlığı, 2013). However, in practice, staff often perceive administrative consequences negatively or report inadequate follow-up. Indeed, several studies have analyzed White Code data to understand the characteristics of violence in general hospital settings across Turkey (Özen Bekar & Çevik, 2021; Eğici & Öztürk, 2018; Polat & Çırak, 2019; Torun, 2020). However, detailed analyses of this data from specialized, high-security psychiatric facilities remain scarce a significant gap this study addresses. Despite this national framework, detailed analyses of White Code data from specialized, high-security psychiatric facilities remain scarce a significant gap this study addresses.

Given the high-risk nature of forensic psychiatric settings and the pervasive issue of underreporting, a simple descriptive analysis of official reports is insufficient. A deeper, more critical approach is required. Therefore, this study aims to: (1) retrospectively analyze the epidemiological characteristics of all officially reported White Code incidents over five years in a regional high-security psychiatric hospital; (2) critically evaluate the low incident rate against international benchmarks to quantify the likely magnitude of underreporting; and (3) delineate distinct pathways of aggression and analyze them through the lens of Trauma-Informed Care (TIC) to identify specific points of systemic failure. The TIC framework provides a powerful explanatory tool, suggesting that patterns of violence are not random but predictable responses to failures in providing safety, trust, transparency, and empowerment positioning this research as explanatory and diagnostic, not merely descriptive.

This study is critical as it addresses a significant gap in the literature regarding high-security forensic psychiatric settings in Turkey, a region where such data is scarce. By moving beyond descriptive statistics to apply a Trauma-Informed Care (TIC) framework, the study offers a novel explanatory model for why violence occurs and persists. Furthermore, it provides the empirical evidence needed to shift institutional policy from reactive security measures to proactive, culture-based interventions, potentially serving as a model for similar institutions facing the 'shadow epidemic' of unreported violence.

### Research Questions

What are the types of violence in code white?

What are the sociodemographic variables in types of violence in code white?

### Materials and Methods

This research employed a retrospective record review design to analyze White Code incident reports filed at a 545-bed, high-security regional psychiatric hospital in Turkey between January 1, 2018, and December 31, 2022. Data extraction was conducted using a standardized form developed by the researchers to ensure consistency across the archival review. All units in the facility are closed wards with controlled entry and exit managed by security personnel and electronic systems; patients cannot leave without authorization, and the population is predominantly forensic. The study population comprised a census of all 51 official White Code reports during this period.

The "White Code" reports analyzed in this study represent formal administrative and legal documents. The process is initiated when a healthcare worker dials the internal emergency line "1111," prompting an immediate response from security personnel. Following the event, the affected employee is required to complete an official "White Code Incident Report," providing a detailed and uncensored account of the incident. This report is submitted to the

institution's Employee Rights Unit, which then forwards it via the hospital's legal department to the Public Prosecutor's Office to initiate a formal judicial inquiry. Therefore, the 51 reports examined in this research are not merely incident logs but are the foundational documents for official legal investigations.

Data were extracted from archived paper files using a standardized form developed by the researchers, capturing incident date, time, location, type and officially recorded cause of violence, and sociodemographic and professional characteristics of both perpetrators and victims. Data were analyzed using SPSS for Windows (Version 22.0). Descriptive statistics (frequencies, percentages, means, standard deviations) summarized the data. Inferential analysis used Chi-Square tests of independence ( $p < .05$ ) to examine associations between categorical variables, with Cramer's V calculated to assess effect size. While primary variables (e.g., incident type, gender, profession) were complete, age data was missing for 31.4% of the perpetrators. Since Chi-Square tests require complete contingency tables, 'listwise deletion' was applied for analyses involving the age variable; thus, cases with missing values were excluded from those specific calculations to maintain statistical validity. The study protocol received approval from the XXX University Faculty of Medicine Ethics Committee (Approval No. 20.478.486/1740, March 8, 2023), and all data were fully anonymized.

### Findings

Over five years, 51 White Code incidents were reported. Incidents occurred most frequently in inpatient wards (31.4%) and the emergency department (29.4%), primarily during the day shift (66.7%). Verbal violence was the most common form (56.9%), followed by physical violence (29.4%). Official reports attributed 72.5% of incidents to the "attitudes and behaviors of patients/patient relatives" (Table 1).

**Table 1.** Descriptive characteristics of incidents

Variable	Category	n	%
Incident Location	Polyclinic	12	23.5
	Ward	16	31.4
	Emergency Department	15	29.4
	Other <sup>a</sup>	8	15.7
Incident Time	08:00-16:00	34	66.7
	16:00-23:00	11	21.6
	24:00-08:00	6	11.8
Type of Violence	Verbal	29	56.9
	Physical	15	29.4
	Other <sup>b</sup>	7	13.7
Cause of Violence	Attitudes of Patients/Relatives	37	72.5
	Unwillingness to Wait	3	5.9
	No Appointment	4	7.8
	Other <sup>*</sup>	7	13.7

**Note:** The 'Other' location category includes committee office (n=2), chief physician's office (n=2), and two other unspecified locations (n=4). The 'Other' violence type category includes damage to public property (n=1), combined verbal-physical violence (n=3), and social media insults (n=3). The 'Other' cause category includes various requests, non-compliance issues (n=4), and miscellaneous reasons (n=3).

Perpetrators were predominantly male (70.6%, mean age 34.14 years), nearly equally split between patients (47.1%) and patient relatives (45.1%). Victims were mostly female

(54.9%, mean age 41.43 years), with physicians being the most targeted group (47.1%), followed by security personnel (21.6%) (Table 2).

**Table 2.** Demographic characteristics of individuals involved in incidents

Group	Characteristic	Category	n	%
<b>Individuals engaging in aggressive behavior</b>	<b>Gender</b>	Female	15	29.4
		Male	36	70.6
	<b>Identity</b>	Patient	24	47.1
		Patient relative	23	45.1
		Other <sup>d</sup>	4	7.8
<b>Staff exposed to violence</b>	<b>Gender</b>	Female	28	54.9
		Male	23	45.1
	<b>Profession</b>	Physician	24	47.1
		security	11	21.6
		Nurse / Health officer	8	15.7
		Other <sup>e</sup>	8	15.7

**Note:** The 'Other' aggressor category includes a police officer (n=1), an ambulance attendant (n=1), and two physicians (n=2). The 'Other' staff profession category includes cleaning staff (n=5), general practitioners (n=2), and a secretary (n=1).

Chi-Square analyses revealed statistically significant and large associations (all p<.001): between aggressor identity

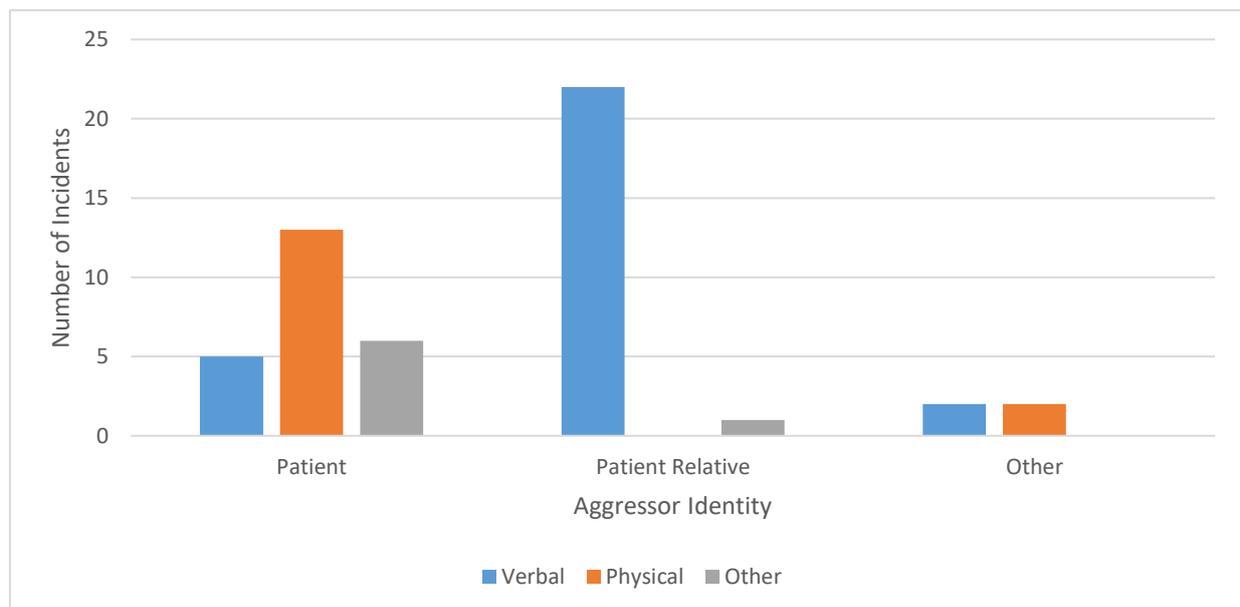
and violence type (Cramer's V=0.579) patient relatives accounted for 75.9% of verbal violence (Table 3).

**Table 3.** Association between aggressor identity and type of violence

Aggressor Identity	Type of violence			Total
	Verbal violence	Physical violence	Other	
<b>Patient</b>	5	13	6	24
<b>Patient Relative</b>	22	0	1	23
<b>Other</b>	2	2	0	4
<b>Total</b>	29	15	7	51

Note:  $\chi^2$  (4, N=51) = 34.171, p<.001; Cramer's V=0.579.

**Figure 1.** Aggressor Identity and Type of Violence



While patients accounted for 86.7% of physical violence; between staff profession and violence type (Cramer's  $V=0.613$ ) physicians were primary targets of verbal violence (69.0% of cases) (Table 4), whereas security personnel were primary targets of physical violence (46.7%); and between incident location and violence type (Cramer's  $V=0.696$ ) physical violence was most prevalent

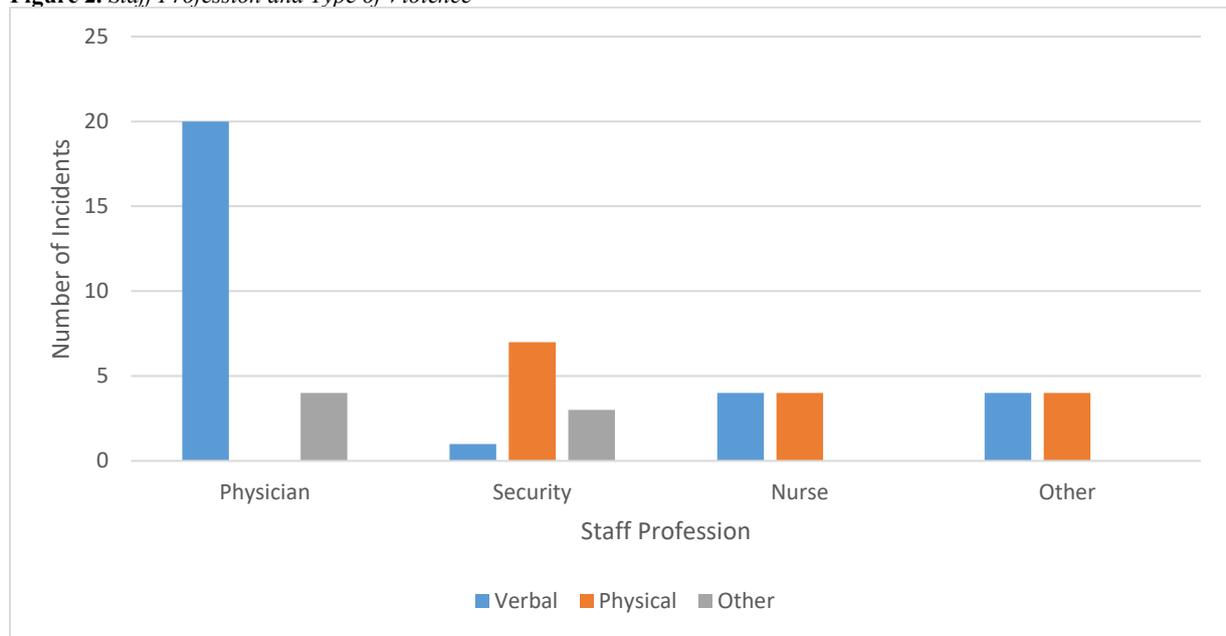
in inpatient wards (46.7% of cases), while verbal violence was more common in polyclinics (34.5%) and the emergency department (31.0%) (Table 5). Due to the small sample size, some expected cell frequencies were below 5; thus, findings should be interpreted cautiously as preliminary.

**Table 4.** Association between staff profession and type of violence

Incident location	Type of violence			Total
	Verbal violence	Physical violence	Other	
<b>Staff profession</b>				
<b>Physician</b>	20	0	4	24
<b>Security</b>	1	7	3	11
<b>Nurse</b>	4	4	0	8
<b>Other</b>	4	4	0	8
<b>Total</b>	29	15	7	51

Note:  $\chi^2 (6, N=51) = 38.342, p < .001$ ; Cramer's  $V=0.613$ .

**Figure 2.** Staff Profession and Type of Violence



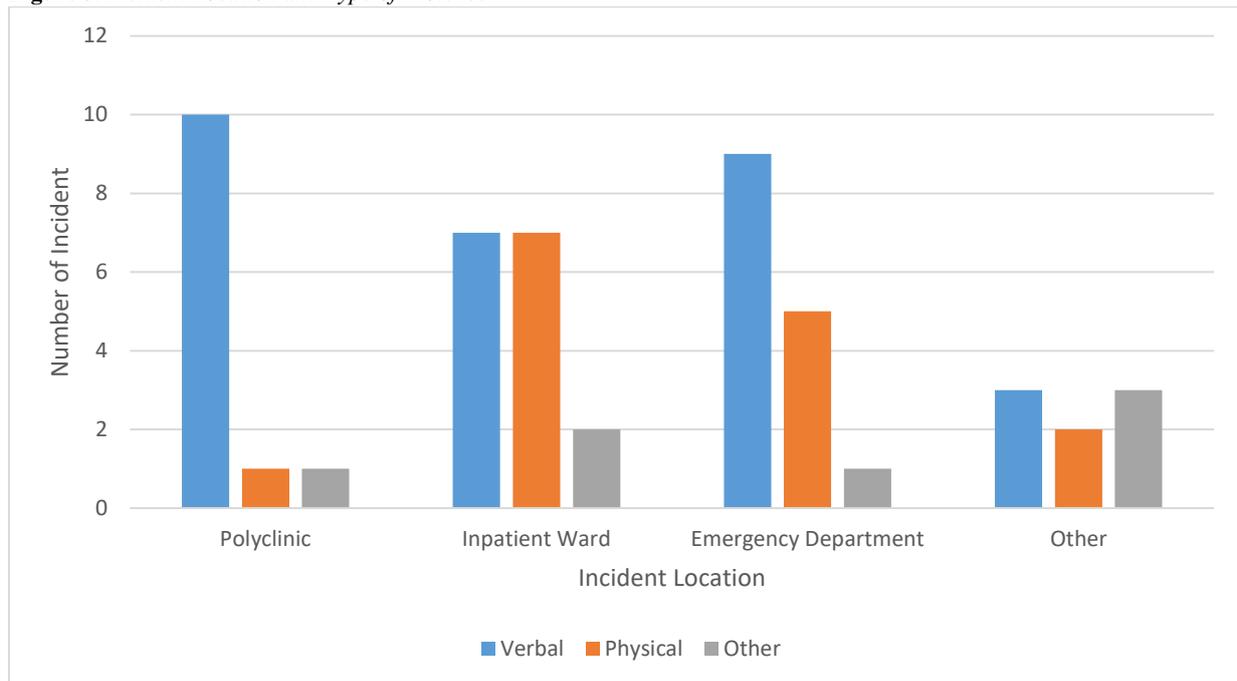
Between incident location and violence type (Cramer's  $V=0.696$ ), physical violence was most prevalent in inpatient wards (46.7% of cases), while verbal violence was more common in polyclinics (34.5%), and the

emergency department (31.0%) (Table 5), (figure 3). Due to the small sample size, some expected cell frequencies were below 5; thus, findings should be interpreted cautiously as preliminary.

**Table 5.** Association between incident location and type of violence.

Incident location	Type of violence			Total
	Verbal violence	Physical violence	Other	
<b>Polyclinic</b>	10	1	1	12
<b>inpatient ward</b>	7	7	2	16
<b>Emergency department</b>	9	5	1	15
<b>Other</b>	3	2	3	8
<b>Total</b>	29	15	7	51

Note:  $\chi^2 (6, N=51) = 49.163, p < .001$ ; Cramer's  $V=0.696$ .

**Figure 3.** Incident Location and Type of Violence

## Discussion

The central hypothesis of this study posits that official violence reports in high-security psychiatric settings represent only the tip of the iceberg, obscuring a systemic culture of silence. Confirming this hypothesis, the most significant finding is not merely the characteristics of the 51 reported incidents, but the exceptionally low volume of reports in a 545-bed forensic institution with over a century of history handling complex cases. This discrepancy serves as the primary evidence of a 'shadow epidemic,' where the normalization of aggression and bureaucratic barriers have effectively rendered the vast majority of violent encounters invisible to administrative scrutiny.

Given that the institution is a regional forensic center founded in 1925, with over a century of experience managing the most challenging cases in a vast hinterland, the figure of 51 reports over five years serves as potent evidence of 'systemic underreporting' driven by 'professional habituation.' Staff members, dealing with a highly aggressive patient group daily, appear to have developed a high threshold for reporting, viewing violence as an intrinsic part of their routine. This habituation, rather than a lack of incidents, artificially suppresses the data, confirming the existence of a 'shadow epidemic' hidden behind normalized aggression.

To quantify this deficit, we compared our institution's rate of reported physical violence 0.55 incidents per 100 beds per year with international benchmarks from forensic psychiatric settings. This direct comparison suggests that approximately 98.5% of physical violence incidents are not being reported. Given that physical violence is the most visible and legally consequential form of aggression, this figure implies that verbal abuse and other subtle hostilities have likely become so normalized that they are no longer perceived as reportable events. The result is a profound distortion of institutional reality, where policies

are built on incomplete data, and staff safety remains compromised yet invisible.

Beyond the scale of underreporting, our analysis uncovered two distinct pathways of aggression, each tied to specific relational and systemic dynamics. The first, which we label the *communication-frustration pathway*, primarily involves verbal aggression from patient relatives directed at physicians. This pattern should not be dismissed as the behavior of "difficult families" but understood as a predictable response to systemic failures in transparency and collaboration. Drawing on the Trauma-Informed Care (TIC) framework outlined by the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014), this aggression reflects breaches of the core principles of *trustworthiness*, *transparency*, and *collaboration and mutuality*. When families are excluded from care decisions, receive inconsistent information, or perceive staff as dismissive, their anxiety and helplessness can manifest as verbal hostility a desperate attempt to regain control in a system that feels opaque and unresponsive. This interpretation is supported by local research indicating that patients' relatives often attribute conflicts to systemic communication failures and a perceived lack of empathy (Takak & Artantaş, 2018).

The second pathway the *coercion-resistance pathway* involves physical aggression from patients toward frontline staff, especially in inpatient wards. In the context of a high-security forensic unit, where autonomy is severely restricted, such aggression may reflect a trauma-based response to perceived threats or a desperate attempt to reclaim agency. From a TIC perspective, this dynamic signals a failure to uphold the principles of *safety* and *empowerment, voice, and choice* (SAMHSA, 2014). Rather than viewing this behavior as purely pathological, it should be interpreted as resistance to an environment that may inadvertently re-traumatize individuals already vulnerable due to psychiatric and legal histories. In contrast to these restrictive conditions, community-based

models emphasizing psychiatric rehabilitation have been shown to significantly enhance patients' hope and quality of life (Cengiz et al., 2023). This aligns with the concept of *institutional betrayal*, as defined by Smith and Freyd (2014), wherein the very institution tasked with care becomes a source of harm through its rigid, coercive structures.

Compounding these dynamics is a striking dissonance in attribution. Official reports attributed 72.5% of incidents to the “attitudes and behaviors of patients or relatives,” effectively locating the cause of violence within the individual rather than the system. This internal blame narrative contrasts sharply with societal perceptions documented in recent research by Duğan (2024), which analyzed public discourse and found that poor communication and lack of empathy among staff are widely perceived as key triggers for conflict. This discrepancy is not merely anecdotal; it reflects a self-reinforcing institutional cycle. Systemic stressors such as understaffing and burnout erode the quality of staff-patient-family interactions. When families or patients react with frustration, staff interpret this as “bad behavior” and document it as the root cause. The institution, seeing only these reports, reinforces behavioral management over systemic reform. Over time, this cycle discourages reporting, as staff learn that filing a “White Code” does not lead to meaningful change but instead validates a punitive or dismissive stance. This cognitive simplification under stress partially aligns with Bandura’s (1999) theory of *moral disengagement*, where blame is displaced onto victims to justify inaction.

"The category of 'patient/relative attitudes' must be critically interpreted within the institution's dual role as both a therapeutic hospital and a custodial 'detention center.' Since the majority of patients are not voluntary admissions but are remanded by judicial authorities and accompanied by law enforcement, families often perceive the facility through a punitive rather than a medical lens. This misinterpretation creates inherent friction regarding institutional rules. Consequently, behaviors coded as 'attitude errors' such as aggressive intolerance to waiting times or hostility when denied access outside visiting hours are often manifestations of this structural conflict, where the hospital's custodial function clashes with families' expectations of a standard care environment."

While this study is limited by its retrospective design, single-center scope, and reliance on incomplete records, these very limitations underscore the urgency of methodological innovation. Future research must adopt prospective, mixed-methods approaches that integrate official reports with anonymous staff surveys, qualitative interviews with patients and families, and direct observational data to capture the full spectrum of workplace violence.

### Conclusion and Recommendations

This study reframes workplace violence in high-security psychiatric settings not as a series of isolated behavioral incidents, but as a systemic symptom of deeper organizational and cultural failures. The exceptionally low reporting rate coupled with the identification of two distinct aggression pathways reveals how breaches in Trauma-Informed Care principles directly fuel conflict. To address this “shadow epidemic,” interventions must move

beyond reactive security measures and embrace a holistic, trauma-informed transformation of institutional culture.

At the clinical level, de-escalation training should be bifurcated to reflect the dual pathways of aggression. Physicians would benefit from specialized workshops in family crisis communication, emphasizing active listening, expectation management, and transparent information sharing to rebuild trust and strengthen the TIC principles of *trustworthiness* and *transparency*. Meanwhile, frontline staff including nurses and security personnel require training in trauma-informed behavioral support that prioritizes psychological safety and patient empowerment, recognizing aggression as a potential trauma response rather than defiance, thereby upholding the principles of *safety* and *empowerment*.

Administratively, the current “White Code” system must evolve from a bureaucratic or punitive mechanism into a learning-oriented safety reporting system. This includes offering confidential reporting channels, establishing a multidisciplinary Safety Learning Committee to review incidents within 72 hours, and ensuring timely feedback to reporters. Such reforms are essential to rebuild psychological safety among staff and reverse the culture of silence. Furthermore, research demonstrates that perceived social support serves as a key mechanism through which violence-exposed individuals can achieve post-traumatic growth and mental well-being (Öztosun et al., 2024), reinforcing the case for structured peer support and supervisory follow-up after White Code incidents.

Finally, communication must be elevated from an ancillary skill to a core institutional competency. Mandatory, ongoing training in empathetic and culturally sensitive communication should be integrated into performance evaluations for all staff, reinforcing the TIC principles of collaboration, mutuality, and transparency.

Ultimately, tackling workplace violence in forensic psychiatry requires more than incident management it demands a fundamental reimagining of care environments as spaces of safety, dignity, and mutual respect. Only then can the shadow epidemic be brought into the light.

### Limitations

This study has several limitations. First, the retrospective design relies on archived records, which led to missing demographic data (e.g., age for 31.4% of perpetrators) due to the prioritization of crisis management over documentation. Second, as a single-center study in a specialized forensic hospital, findings may not be fully generalizable to non-forensic settings. Finally, the low number of reported incidents (n=51) in a high-risk institution with a 100-year history likely reflects significant underreporting due to staff habituation. Rather than diminishing the study's value, this reinforces our core finding: the data represents the minimum confirmed prevalence, supporting the 'shadow epidemic' hypothesis. A notable limitation is the missing age data for 31.4% of the perpetrators. This gap stems from the chaotic nature of violent incidents, where immediate safety protocols and crisis management prioritize de-escalation over detailed administrative logging. Consequently, age-related risk profiling was limited to the available data.

## Declarations

### Ethical declaration

Necessary institutional and ethical permissions were obtained from XXX University Faculty of Medicine Ethics Committee (08.03.2023/20.478.486/1740).

### Publication permission

Not applicable.

### Availability of data and materials

Not applicable.

### Conflict of interest

The authors declare that there are no conflicts of interest related to the content of this article.

## Funding

The authors report no financial support related to the content of this article.

## Conflict of interest

The authors declare that there is no conflict of interest. Authorship Contributions Concept: CC, Design: CC, SN, Supervision: CC, SN. Data collection and entry: CC, SN. Analysis and interpretation: CC, SN. Literature review: CC, SN. Writing: CC, SN. Critical review: CC, SN.

## Acknowledgments

We would like to thank the hospital management for contributing to the data collection for the study.

## References

- Arnetz, J. E., Hamblin, L., Ager, J., & Aranyos, D. (2015). Underreporting of workplace violence: Comparison of self-report and actual documentation of hospital incidents. *Workplace Health & Safety*, 63(5), 200–210. <https://doi.org/10.1177/2165079915574684>
- Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*, 3(3), 193–209. [https://doi.org/10.1207/s15327957pspr0303\\_3](https://doi.org/10.1207/s15327957pspr0303_3)
- Büyükbayram, A., & Okçay, H. (2013). Sağlık çalışanlarına yönelik şiddeti etkileyen sosyokültürel faktörler. *Psikiyatri Hemşireliği Dergisi*, 4(1), 46–53. <https://doi.org/10.5505/phd.2013.14622>
- Cengisiz, C., Nehir, S., & Ögütveren, Ö. (2023). Şizofreni tanılı bireylere uygulanan psikiyatrik rehabilitasyon hizmetlerinin yaşam kalitesi ve umuda etkisi. *Gevher Nesibe Journal of Medical & Health Sciences*, 8 (Özel Sayı), 882–889. <http://doi.org/10.5281/zenodo.8405271>
- Deniz, S., & Yüksel, O. (2020). Sağlık çalışanlarına yönelik şiddetin nedenlerinin belirlenmesine yönelik bir çalışma [A study on the determination of the reasons for violence against healthcare workers]. *Acıbadem Üniversitesi Sağlık Bilimleri Dergisi*, 11(3), 483–487. <https://doi.org/10.31067/acusaglik.733632>
- Duğan, Ö. (2024). Violence in health: An analysis based on the emotions of YouTube viewers. *Cyprus Turkish Journal of Psychiatry & Psychology*, 6(3), 249–254. <https://doi.org/10.35365/ctjpp.24.3.06>
- Eğici, M.T., & Öztürk, G.Z. (2018). Beyaz kod verileri ışığında sağlık çalışanlarına yönelik şiddet [Violence against healthcare workers in light of code white data]. *Ankara Medical Journal*, 18(2), 224–231. <https://doi.org/10.17098/amj.436537>
- Liu, J., Gan, Y., Jiang, H., Li, L., Dwyer, R., Lu, K.,... & Wang, C. (2019). Prevalence of workplace violence against healthcare workers: A systematic review and meta-analysis. *Occupational and Environmental Medicine*, 76(12), 927–937. <https://doi.org/10.1136/oemed-2019-105849>
- Mento, C., Silvestri, M.C., Bruno, A., Muscatello, M.R.A., Cedro, C., Pandolfo, G., & Zoccali, R.A. (2020). Workplace violence against healthcare professionals: A systematic review. *Aggression and Violent Behavior*, 51, 101381. <https://doi.org/10.1016/j.avb.2020.101381>
- Nielsen, O., Large, M., Ryan, C., & Hayes, R. (2015). Prevalence of physical violence in a forensic psychiatric hospital system during 2011–2013: Patient assaults, staff assaults, and repeatedly violent patients. *CNS Spectrums*, 20(3), 264–272. <https://doi.org/10.1017/s109285291500018x>
- Özen Bekar, E., & Çevik, E. (2021). Beyaz kod verileri ışığında Düzce ilindeki sağlık çalışanlarına yönelik şiddet. *Düzce Üniversitesi Sağlık Bilimleri Enstitüsü Dergisi*, 11(3), 298–304. <https://doi.org/10.33631/duzcesbed.694178>
- Öztosun, A., Kuşci, İ., & Eldeleklioğlu, J. (2024). Şiddet görmüş kadınlarda algılanan sosyal destek ile travma sonrası büyüme ilişkisinde mental iyi oluşun aracı rolü. *Kıbrıs Türk Psikiyatri ve Psikoloji Dergisi*, 6(4), 321–330. <https://doi.org/10.35365/ctjpp.24.4.03>
- Polat, Ö., & Çırak, M. (2019). Beyaz kod verileri ile sağlıkta şiddetin değerlendirilmesi [Evaluation of violence in health with white code data]. *Medical Journal of Bakirkoy*, 15(4), 393–398. <https://doi.org/10.4274/BTDMJB.galenos.20190918115436>
- Sağlık Bakanlığı. (2013). *Sağlıkta ulusal renk kodları (URK) yönetmeliği*. <https://dosyamerkez.saglik.gov.tr/Eklenti/6409,ulusa1-renk-kodlarpdf.pdf>
- Smith, C. P., & Freyd, J. J. (2014). Institutional betrayal. *American Psychologist*, 69(6), 575–587. <https://doi.org/10.1037/a0037564>
- Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach* (HHS Publication No. SMA 14-4884). <https://store.samhsa.gov/product/SAMHSA-s-Concept-of-Trauma-and-Guidance-for-a-Trauma-Informed-Approach/SMA14-4884>
- Takak, S.Ö., & Artantaş, A.B. (2018). Hastaların ve yakınlarının sağlık çalışanlarına yönelik şiddetin nedenleri konusunda görüş ve tutumlarının değerlendirilmesi [Evaluation of patients' and their relatives' opinions and attitudes regarding the causes of violence against healthcare workers]. *Ankara Medical Journal*, 18(1), 103–116. <https://doi.org/10.17098/amj.409020>
- Torun, N. (2020). "Beyaz kod" verilerinin şiddet açısından değerlendirilmesi [An evaluation of "white code" data regarding violence]. *Çukurova Medical Journal*, 45(3), 977–984. <https://doi.org/10.17826/cumj.708892>
- UN Women. (2020, April). *The shadow pandemic: Violence against women during COVID-19*. <https://www.unwomen.org/en/news/in-focus/in-focus-gender-equality-in-covid-19-response/violence-against-women-during-covid-19>