Measuring the Severity of Objective and Subjective Patient-to-Staff Violence in Psychogeriatric and Adult Psychiatric Wards: A Retrospective Study of Four Swiss Hospitals

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ABSTRACT

Measurement of patient-to-staff violence (PSV) is essential for the institution to prevent negative outcomes and provide effective interventions. Although there are several approaches to doing this in psychiatry, little is known about how well they adapt to different types of wards. The role of gender and age also needs further investigation. The present study aimed to examine and compare characteristics that contribute to the objective and subjective measurement of the severity of PSV in adult (AP) and geriatric (PG) psychiatric wards. Results show that 70% of the reported violence over 30 months ($N = 589$) was PSV, mostly perpetrated by male patients against nurses. Objective severity ratings were higher in PG than in AP wards, and conversely, subjective ratings were higher in AP than in PG wards. The findings support the systematic measurement of PSV in psychiatric wards and highlight the need for targeted interventions to address the risks associated with minimizing violence.

Introduction

Violence is part of the life of psychiatric wards and has numerous detrimental effects on staff, on patients, and on the institution. Over the last few decades, psychiatric institutions have adopted numerous guidelines to protect their staff's right to live and work in a safe environment, but violence remains pervasive and of global concern (Vento et al., 2020).

Most observers agree that official statistics on workplace violence greatly underestimate the phenomenon, particularly in healthcare settings, where actual rates of violent behavior may be 10–20 times higher than those reported (Mento et al., 2020). On average, one in two healthcare workers experiences some form of workplace violence during their career (Li et al., 2020; Liu et al., 2019). According to the World Health Organization's definition, acts of psychological violence involve insults, threats, attacks, and verbal abuse; acts of physical violence involve force or threat of force against another human being (WHO, 2016, 2022).

Violent acts occurs more frequently in psychiatric wards than in other medical wards (Mento et al., 2020) and two to three times more frequently than in the general community (Johnsen et al., 2020; Vento et al., 2020) with patient-to-staff

violence (PSV) being the most common (D'Ettorre & Pellicani, 2017). Psychological violence appears to account for between 65% and 80% of PSV, with physical violence accounting for an average of 30% (Weltens et al., 2021). The resulting mental and physical suffering not only has an important effect on the staff's quality of life, but it also has socio-economic effects, such as increased absenteeism (Aljohani et al., 2021). In a field with staff shortages, like in Switzerland and many other countries, these absences can affect the quality of care (Schwendimann et al., 2019; WHO, 2016).

Consequently, it is important to monitor the prevalence and severity of PSV to inform how best to address this violence and ensure staff safety (D'Ettorre et al., 2020; Itzhaki et al., 2018; Renwick et al., 2019). To do this, any tool used for this measurement must have demonstrated that it can provide useful and contextualized information.

Background

There is extensive empirical and theoretical support that the development of PSV appears to be linked to the interaction between individual factors, i.e., patient and staff

characteristics and situational factors, i.e., wards and care characteristics. Research and associated interventions to reduce this violence must consider this interaction (Gadon et al., 2006; Welsh et al., 2013). Nevertheless, studies of PSV risks factors more frequently analyze patient characteristics than staff and even less so ward characteristics (Sato et al., 2017; Weltens et al., 2021). In addition, as highlighted by several systematic reviews (D'Ettorre & Pellicani, 2017; Odes et al., 2021; Weltens et al., 2021), this research is often unmethodical and of low quality (e.g., lack of comparisons groups, heterogeneity of measurements).

Situational factors that appear to impact the risk of PSV include the day of the week, time of day, and quality of care (Gadon et al., 2006; Welsh et al., 2013). Moreover, various studies have reported high rates of PSV on acute wards, but also on psychogeriatric wards (Bilici et al., 2016; Civilotti et al., 2021; McCann et al., 2014; Paschali et al., 2018). There was still an institutional culture that considers violence to be normal within the context of psychiatric care (Baby et al., 2014; Sauer, 2017). This results in incidents of violence being not considered sufficiently worthy of reporting (Pariona-Cabrera et al., 2020; Speroni et al., 2014).

Patient characteristics, such as younger age, male gender, diagnosis (e.g., psychosis, personality disorders, dementia, mental retardation, and substance abuse), and history of violence have been associated with a higher risk of PSV (Iozzino et al., 2015). However, a more recent review found inconclusive evidence for the role of younger age and male gender (Weltens et al., 2021). Similarly for staff, there is no conclusive evidence for the role of their age and gender in PSV violence risk (Liu et al., 2019; Weltens et al., 2021). Overall, the type of job is the most important staff characteristics in determining the risk of experiencing workplace violence. Nurses were more likely to be targeted (70% on average) as they spend more time in direct contact with patients than other staff (D'Ettorre & Pellicani, 2017; Li et al., 2020). Moreover, nurses who showed higher tolerance to violence, were often the most exposed, with higher levels of job dissatisfaction, burnout, and absenteeism (Dean et al., 2021; Schlup et al., 2021).

Several observational validated instruments are now available to measure the frequency and severity of violence in psychiatric wards. According to a recent review (Mistler & Friedman, 2022), the most used in the past 10 years are variants of the Overt Aggression Scale (OAS), notably the Modified Overt Aggression Scale (MOAS) and Staff Observation Aggression Scale (SOAS) and its revised version (SOAS-R). The OAS and MOAS include various Likert subscales to measure the severity of verbal aggression, object aggression, and aggression against self and against other (Knoedler, 1989; Yudofsky et al., 1986). The SOAS and SOAS-R include the collection of data falling into five domains to capture the frequency, nature, and severity of aggressive incidents (Nijman et al., 2005; Palmstierna & Wistedt, 1987). Although these instruments are increasingly used, to date no identified gold standard measure exists (Allen et al., 2019; Mistler & Friedman, 2022).

As a way of ensuring that excessive bureaucracy does not deter staff from reporting incidents of PSV (Allen et al.

2019), recent years have seen a trend toward using ever-shorter and shorter violence measurement instruments, down to a single Likert-scale item on subjective perceptions of violence severity (Camus et al., 2021; Hvidhjelm et al., 2014). These subjective measures attempt to identify the severity of the violence as perceived by the respondent, usually the victim. However, if shorter subjective measures are less likely to result in underreporting of violence, they may be more likely to result in missing important information and oversimplifying the violence experienced. Little is known about the respective characteristics of objective and subjective measures in different psychiatric wards (Noda et al., 2012; Sato et al., 2017).

Aim

The present study aimed to describe and compare objective and subjective measurement of PSV severity in two types of psychiatric wards with a high risk of violence: adult psychiatric (AP) wards and psychogeriatric (PG) wards. We also examined which individual and situational characteristics featured most strongly in staff' representations of the severity of the violence they had experienced. We sought to determine whether the objective and subjective measurement of PSV severity differ in PG and AP wards, and in particular whether patient age was a factor for minimizing the severity of violence experienced. Our study goal was to help fill the current research gaps on PSV characteristics and its measurement in order to inform institutions on how best to measure PSV.

Methods

Design

This is a retrospective and correlational study.

Sample and setting

The present study is part of a larger, multi-site research project to evaluate a digital data-collection tool, called Collection of Critical and Undesirable Events (CCUE), which has been progressively deployed since 2008 across all the hospitals in the Vaud Canton of Switzerland. CCUE allows any member of hospital staff to report an undesirable event (UE) using drop-down menus to indicate the nature of the UE, categorized among others as either a physical or a psychological violent act, and the perpetrator. Space is provided to describe the UE in more detail. Staff members who report a UE receive feedback on the measures taken to improve the situation and prevent further UEs. A redesigned version of the CCUE form, incorporating shorter tools for reporting interpersonal violence (e.g., patient-to-patient violence, PSV), was deployed in the middle of June 2019.

We retrieved all acts of Type 2 workplace violence that is psychological and physical violence against a staff member (NIOSH, 2020; WHO, 2022) reported between January 1, 2017, and June 15, 2019, in 14 AP and PG wards (10 AP

wards, 4 PG wards; 253 beds and 82 beds, respectively) in the Vaud Canton's four hospitals (1 urban hospital, 3 peri-urban hospitals). To be eligible for inclusion in our analytic sample, a report had to provide all the information requested by the CCUE form, involve a violent act by a patient toward a staff member (PSV), and include a qualitative description of the event.

Data collection and tools

We used official records to retrieve information about psychiatric wards (number of cases treated, number of days, length of the stay), patient (gender, age) and staff member (full-time equivalent—FTE, a FTE of 1.0 is equivalent to a full-time worker – gender, age, profession) characteristics during follow-up.

We used the CCUE forms to retrieve information about the type of violence, the gender and profession (nurse vs. other) of the main victim, the gender and age of the patient perpetrator, whether the perpetrator was a non-repeater (i.e., only one violent act during the study period) or a repeater (i.e., more than one violent acts), the number of violent acts the perpetrator had committed, Staff Observation aggression Scale-Revised and Visual Analogue Subjective Scale.

Staff observation aggression scale-revised (SOAS-R)

Until the middle of June 2019, the CCUE form incorporated the Staff Observation Aggression Scale-Revised (SOAS-R), which many psychiatric institutions use to assess the severity of violent acts (Nijman et al., 2005). In the present study, we used respondent' answers to the SOAS-R as a measure of the objective severity of the violence they had experienced. The SOAS-R comprises eleven items divided into five subscales covering five components of violent behavior, i.e. Provocation, Means Used, Consequences, Target, Measures to stop violence. Total SOAS-R scores, obtained by summing the scores for the five subscales, can range from 0 to 22. A SOAS-R score less than 7 indicates mild aggression, a score between 8 and 15 indicates moderate aggression and a score of 16 or more indicates severe aggression. A score of 9 or more implies that an incident resulted in physical pain or injury, caused the victim to fear being harmed, or involved a dangerous object. The SOAS-R has good to excellent reliability (Noda et al., 2012). The validated English version of the SOAS-R was translated into French and then back-translated into English by two independent reviewers in order to check the quality of the initial translation (Camus et al., 2021).

Visual Analogue Subjective Scale (VASS)

Prior to mid-June 2019, the CCUE form also incorporated the Visual Analogue Subjective Scale (VASS). We used responses to this scale to assess the subjective severity of each violent act. The VASS requires respondents to indicate the perceived severity of the violence they had experienced on a 9-point visual analogue scale (the higher the score, the higher the perceived severity). We used these severity ratings to compare subjective perceptions of a violent act with objective measurements of the same act using the SOAS-R (Morken et al., 2018).

Ethical considerations

Once the Chair of the Cantonal Commission for Ethical Research (CCER) had exempted our study from formal review, the main researcher (Author 1) retrieved the relevant data from the CCUE data manager, who anonymized the names of the patients and staff members. We ensured confidentiality by assigning a non-identifying code to each patient and to each staff member. We used the same code for each patient and each staff member every time their name featured in a report.

Data analysis

We calculated descriptive statistics for the demographics, the characteristics of the violent acts, and the SOAS-R and VASS scores. We used chi-squared tests to compare the frequency of violence, the gender and violence status of patients and, the gender and profession of staff members for each type of ward.

We performed ANOVAs with post hoc Bonferroni corrections to compare patient age and violence frequency by type of ward and MANOVAs with post hoc Bonferroni corrections to determine whether SOAS-R and VASS scores differed according to staff gender, type of ward, or the staff gender x type of ward interaction. We calculated Pearson's r correlations between SOAS-R and VASS scores. Critical values for Pearson's r correlations were defined as follows: $r > 0.50 =$ high; $r > 0.30 < 0.50 =$ moderate, and $r > 0.20 < 0.30 =$ modest (Kline, 2000). Significance was determined at the 0.05 level.

In light of previous findings (Iozzino et al., 2015; Liu et al., 2019; Paschali et al., 2018), we performed linear regression analyses (mean difference and 95% confidence intervals) to examine whether:

1. Staff gender, staff profession, patient gender, patient age, patient repeat violence status, and VASS scores predicted total SOAS-R scores,
2. Staff gender, staff profession, patient gender, patient age, patient repeat violence status, and total SOAS-R scores predicted VASS scores.

All analyses were performed with SPSS version 25 (IBM Corp., Armonk, NY, USA).

Validity and reliability

Three researchers (Author 1, Author 2, Author 3) verified the nature and eligibility of all the events reported during the study period by ensuring that the descriptions of events reported on the CCUE form corresponded to incidents of PSV (some events reported as PSV actually involved patient-to-patient violence). We checked approximately 100 events and resolved any disagreements by discussion.

Results

Sites and sample

Table 1 shows reported violent incidents as well as patient and staff member characteristics by type of ward during our study period.

Of the 900 acts of violence (198 in PG = 22%) reported between January 1, 2017, and June 15, 2019, 611 acts (68%; 141 in PG = 23%) were against staff. For 589 (96.3%) of these incidents, the reporter completed all the sections of the CCUE form, including the SOAS-R and VASS scales, and provided a qualitative description of the incident. These 589 incidents (137 in PG = 23%) formed the sample on which we based our analyses. The ratio of violent incidents to the number of cases being treated was slightly higher in PG wards (137 incidents for 2199 cases treated = 0.062 than in AP wards (452 incidents for 10,846 cases treated = 0.041). The overall ratio of 0.045 (589 incidents for 13,045 cases treated) mirrored the ratios of previous studies conducted in Switzerland (Abderhalden et al., 2004, 2007).

The average length of stay for patients was 28.7 d and was significantly longer in PG wards than in AP wards (34.1 d vs 22.1 d, respectively). Numerically, female patients outnumbered male patients, and as a proportion of the total, female patients outnumbered male patients significantly more in PG wards than in AP wards.

Similarly for staff, there were more female FTEs than male FTEs, and as a proportion of the total, there were more female FTEs than male FTEs in PG units than in AP units. The same was true for the FTE of nurses compared to others and for the higher proportion of FTE of nurses in the PG units.

Characteristics of patients and staff involved in PSV

Table 2 shows the characteristics of patients and staff involved in reported violent incidents by ward type.

The mean age of the patients corresponded to the type of ward (38.7 years old in AP wards, 77.1 years in PG wards) and was similar to that of the total patient sample, see Table 1.

While male patients represented 45.6% of the total number of patients (see Table 1), most patients who perpetrated violence were male (62.6%). The percentage of male patients who perpetrated violence was 62.8% in AP wards and 62.0% in PG wards. This corresponds to a significant difference when compared with the percentage of the total male patients in AP (+15.5%, chi square 15.20, $p < .020$) and PG wards (+23.7% chi square 16.50, $p < .001$), see Table 1.

The mean frequency of violence was approximately three violent acts per violent patient, ranging from 1 to 9 violence acts. This number was slightly but significantly higher in AP wards (mean violence frequency = 3.1) than in PG wards (mean violence frequency = 2.4). Patients in AP wards were more likely to commit repeated acts of violence than those in PG wards (57.1% vs 45.3%). These repeated acts were perpetrated by a quarter of patients on average ($n = 96$), with a slightly higher proportion in the AP wards (27.8%) than in PG wards (21.9%).

Table 1. Patient-to-staff violence, patient and staff member characteristics during follow-up by type of ward.

	All (N = 14)	AP wards (n = 10)	PG wards (n = 4)	p value
Patient-to-staff violence				
Reported violent incidents, n (n/cases treated)	589 (0.045)	452 (0.041)	137 (0.062)	<.001
Patients				
Length of the stay (days), Mean (Range)	28.7 (2–1106)	22.1 (1–827)	34.1 (3–1106)	<.001
Age, Mean (Range)	46.0 (17–94)	42.5 (17–70)	77.5 (63–94)	<.001
Gender, n (%)				
Female	5550 (54.4)	4533 (52.7)	1017 (61.7)	<.001
Male	4643 (45.6)	4019 (47.3)	624 (38.3)	
Staff members				
Gender, FTE, n (%)				
Female	680.7 (71.9)	456.0 (68.8)	214.7 (75.6)	.010
Male	266.1 (28.1)	206.8 (31.2)	69.3 (24.4)	
Profession, FTE, n (%)				
Nurse	600.2 (63.4)	402.5 (60.7)	197.7 (69.6)	.010
Others	346.6 (36.6)	260.4 (39.3)	86.3 (30.4)	
Medical	160.6 (17.0)	117.5 (17.7)	43.1 (18.2)	
Medico-technical	6.7 (0.7)	4.9 (0.7)	1.8 (0.6)	
Logistical	27.3 (2.9)	25.3 (3.8)	2.0 (0.7)	
Administrative	11.4 (1.2)	10.7 (1.6)	0.8 (0.3)	
Psychosocial	37.2 (4.3)	34.1 (5.2)	3.0 (1.1)	
Intern	2.1 (0.2)	1.8 (0.3)	0.3 (0.1)	
External interims	101.3 (10.7)	66.0 (10.0)	35.3 (12.4)	

AP: adult psychiatric ward; PG: psychogeriatric ward; FTE: Full-time equivalent.

Numerically, male staff were less likely to experience violence than female staff, but when we compared the percentage with the percentage of all male staff during follow-up (see Table 1), this was only the case in PG wards. In fact, the percentage of male staff who experienced violence was 35.5% overall, 42.9% in the AP wards and 10.2% in the PG wards. Compared to the percentage of all male staff (see Table 1), this corresponds to a non-significant difference of +7.2% overall (chi square 1.37, $p < .361$) and of +11.7% in the AP wards (chi square 3.1, $p < .107$) but to a significant difference of −14.2% in the PG wards (chi square 7.1, $p < .008$).

Numerically, nurses were more likely to experience violence than other staff, and when we compared the percentage with the percentage of all nurses during follow-up (see Table 1), this was indeed the case. The percentage of nurses who experienced violence was 88.1% overall, 86.1% in AP wards and 89.8% in PG wards. When compared to the percentage of all nurses in the profession at the study sites (see Table 1), this corresponds to a significant difference of +24.7% overall (chi square 17.13, $p < .001$), + 25.4% in AP wards (chi square 16.04, $p < .001$) and 25.3% in PG wards (chi square 3.1, $p < .107$).

Objective and subjective severity of violence

Table 3 shows the mean SOAS-R total scores and mean VASS scores for the whole sample, for female and male victims, and for each type of ward. Compared to staff working in AP wards, those working in PG wards reported higher SOAS-R total scores (AP mean = 12.6 vs PG mean = 14.4). Of the 137 violent episodes in the PG

wards, 62 (45%) were severe episodes (SOAS-R score > 15) vs. 126/452 (28%) in AP wards. Conversely, staff working in PG wards reported lower VASS scores than staff working in AP wards (AP mean = 5.7 vs. PG mean = 4.7). Gender and the interaction effect of gender x ward type were not significant.

Table 3 also shows correlations between SOAS-R and VASS scores for male and female staff, for staff working in AP wards and for those working in PG wards. These correlations were modest at best ($r = 0.20$ in AP wards).

Linear regression

A linear regression analysis of the objective severity of violence revealed positive associations between SOAS-R total scores and VASS scores and, to a lesser extent, between SOAS-R total scores and patient age (Table 4).

A linear regression analysis on the subjective severity of the violent acts revealed a negative association between patient age and VASS scores and a positive association between SOAS-R total scores and VASS scores (Table 5). In addition, VASS scores tended to be higher when the perpetrator was a repeater (vs. non-repeater) of violence.

Discussion

The present study compared objective and subjective measurements of the severity of 589 reported acts of PSV in AP and PG wards at four Swiss hospitals. These analyses allowed us to describe the frequency and severity of this violence and to determine which characteristics influenced both types of ratings in two different wards. The overall results confirmed that PSV is the main source of violence in these wards (D'Ettorre & Pellicani, 2017), and revealed the sometimes complex relationships between individual and situational characteristics, on the one hand, and objective and subjective measurements of the severity of violent incidents, on the other hand. More specifically, our findings confirmed that PSV is mainly perpetrated against nurses (Iennaco et al., 2017) and provided insights into the impact of both patient and staff gender which was an unresolved issue (Weltens et al., 2021). They also revealed a minimization of the subjective severity of PSV when committed by elderly patients.

Our findings confirmed that male patients perpetrated more violence against staff workers than female patients. They are also consistent with some previous studies showing that this is not necessarily the case for male staff workers who suffered this violence (Eriksen et al., 2018; Li et al., 2020; Weltens et al., 2021). In fact, our results showed that while in AP wards, male staff suffered the same amount of violence as female staff, in PG wards, female staff suffered proportionally more violence than male staff.

As expected, nurses were much more likely than people in other professions to experience PSV, and this occurred in both wards (Edward et al., 2016; Pariona-Cabrera et al., 2020). However, unlike Eriksen et al. (2018), we did not find any gender differences in the severity of violence experienced. This suggests that vigilance regarding PSV must be especially strict in high-risk situations such as "hands-on" care in a setting where patients may be unintentionally treated when the staff member present are female and/or male nurses (Khazaie et al., 2017). Vigilance should also be

Table 2. Characteristics of patients and staff members involved in reported violent incidents by type of ward.

	All N = 589	AP wards n = 452	PG wards n = 137	p value
Patients				
Age, Mean (Range)	52.3 (17–93)	38.7 (17–70)	77.1 (63–93)	<.001
Gender n (%)				
Female	220 (37.4)	168 (37.2)	52 (38.0)	.472
Male	369 (62.6)	284 (62.8)	85 (62.0)	
Violence frequency, Mean (Range)	3.0 (1–9)	3.1 (1–9)	2.4 (1–9)	.009
Repeated acts of violence, n (%)	320 (54.3)	258 (57.1)	62 (45.3)	.010
Patient violence frequency status, n (%)				
Non-repeater (single act of violence)	269 (73.7)	194 (72.2)	75 (78.1)	
Repeater (repeated acts of violence)	96 (26.3)	75 (27.8)	21 (21.9)	.010
Staff members				
Gender, n (%)				
Female	381 (64.7%)	258 (57.1%)	123 (89.8)	<.001
Male	208 (35.3%)	194 (42.9%)	14 (10.2%)	
Profession, n (%)				
Nurse	519 (88.1%)	389 (86.1%)	130 (94.9%)	<.001
Other	70 (11.9%)	63 (13.9%)	7 (5.1%)	

AP: adult psychiatric ward; PG: psychogeriatric ward.

Table 3. Descriptive statistics for SOAS-R, VASS scores and their bivariate correlations by staff gender and type of ward.

		Staff Gender		Ward		Gender	Ward
	AllN = 589	Femalen = 208	Malen = 381	APn = 461	PGn = 137	p value	p value
MANOVA						.736	<.001
SOAS-R Mean (SD)	13.1 (4.3)	12.8 (4.1)	13.3 (4.4)	12.6 (4.3)	14.4 (3.8)	.619	.012
VASS Mean (SD)	5.5 (2.0)	5.7 (1.9)	5.3 (2.0)	5.7 (1.9)	4.7 (2.0)	.795	.002
Bivariate Correlations							
SOAS-R/VASS Pearson's r (p value)	0.16 (.001)	0.17 (.001)	0.12 (.112)	0.20 (.001)	0.14 (.047)	n/a	n/a

MANOVA: Multivariate Analysis of Variance; SD: standard deviation; AP: adult psychiatric ward; PG: psychogeriatric ward; SOAS-R: Staff Observation Aggression Scale Revised; VASS: Visual Analogue Subjective Scale; n/a: not applicable.

Table 4. Linear regression analysis of variables associated with SOAS-R total scores: staff member and patient characteristics, patient violence status, and VASS scores.

Variable	MD [95% CI]	p value
	SOAS-R	
Model		<.001
Staff member gender (female)	0.45 [− .33; 1.24]	.258
Staff member profession (nurse)	−0.57 [−1.76; 0.63]	.353
Patient gender (female)	−0.04 [−0.84; 0.76]	.926
Patient age	0.03 [0.10; 0.46]	.002
Patient violence status (repeater)	−0.26 [−1.01; 0.49]	.503
VASS	0.35 [0.16; 0.54]	<.001

MD: mean difference; CI: confidence interval; SOAS-R: Staff Observation Aggression Scale-Revised; VASS: Visual Analogue Subjective Scale.

Table 5. Linear regression analysis of variables associated with VASS scores: staff member and patient characteristics, patient violence status and SOAS-R total score.

Variable	MD [95% CI]	p value
	VASS	
Model		<.001
Staff member gender (female)	0.02 [−0.35; 0.39]	.911
Staff member profession (nurse)	0.03 [−0.53; 0.59]	.911
Patient Gender (female)	0.11 [−0.48; 0.26]	.569
Patient age	−0.02 [−0.02; −0.01]	<.001
Patient violence status (repeater)	0.34 [−0.01; 0.69]	.059
SOAS-R total score	0.08 [0.04; 0.12]	<.001

MD: mean difference; CI: confidence interval; VASS: Visual Analogue Subjective Scale; SOAS-R: Staff Observation Aggression Scale-Revised.

particularly strict in PG wards in general, as PSV perpetrated in PG wards was objectively more severe than PSV committed in AP wards.

In addition, our findings reveal that subjective severity scores were lower in PG wards than they were in AP wards, possibly because staff in PG wards underestimated the severity of the violence they experienced. We suggest that this may be related to the fact that patients spend more time in PG wards and therefore a degree of familiarity may develop. Nurses, in particular, face a role conflict when confronted with PSV perpetrated by a known, vulnerable patient, when the primary purpose of nursing is to care. Benevolence toward the patient's violent behavior could result in this violence being minimized in the subjective perception of the nurse victim. This confirms past studies, which further argue that this may even lead to under-reporting (Baby et al., 2014; Hiebert et al., 2022). This finding also supports the idea that the ward environment is a factor in how staff evaluate and perceive violent acts (Sato et al., 2017).

In contrast with the strong correlation reported by a previous study in Japan (Noda et al., 2012), we also found only a modest correlation between objective violence and subjective violence. However, the two measures still predicted each other, indicating that they measure predominantly the same core construct (Yang et al., 2010).

Furthermore, patient age predicted positively objective severity ratings and negatively subjective severity ratings,

which supports again the hypothesis that violent acts are subjectively perceived as less severe when the perpetrator is older. The age of the patient may contribute to this underestimation, as it may seem normal for them to act in this way, as they are "not in their right mind" and therefore this violence is "part of the job" when working with them (D'Ettorre et al., 2020). The resulting issue of minimization of PSV is of great concern because of its negative consequences affecting personal life, professional conditions, and quality of care (Dean et al., 2021). Consequently, PSV should never be accepted as part of the job, either by the individual or the institution. Our results suggest that intervention to try to modify representations of "normal violence" in mental health care are still needed.

Finally, our findings raise the question: Which type of measure—objective or subjective—is best for evaluating PSV? Our results show that objective and subjective measures of violence severity are similar but not identical. Ideally, therefore, both approaches should be evaluated together. However, this would be time-consuming and could further increase underreporting. An adaptation according to the needs of the institution e.g. by reducing the objective measurement and introducing the subjective perception of the severity of violence suffered by the staff, could be a suitable compromise solution.

Limitations

The first limitation of our study stems from the fact that it was conducted in a single country and language region and should therefore be considered with caution. Further research is needed to compare objective and subjective perceptions of PSV in other linguistic regions and countries. However, our study included two different types of wards, which broadens the scope of our finding.

A second limitation is that although our sample included all acts of violence reported through the hospitals' official CCUE process, our results may have been affected by the tendency of self-report data to underestimate the frequency and severity of violence (Byon et al., 2020; Odes et al., 2021; Tenneij et al., 2009). Policies that encourage staff to report violence, combined with simple but reliable reporting tools, are needed to further explore the benefits and limitations of using violence assessment tools in psychiatric settings.

Thirdly, we used the qualitative descriptions of violence provided by the CCUE only to test reports eligibility. In future studies, it would be highly desirable to analyze these responses and add a qualitative study component, such as interviews, to complete the understanding of the subjective experience of violence.

In addition, future research should include not only staff but also leadership to examine the institutional representation of the PSV. This would allow, if necessary, to address representations that consider violence to be normal in a psychiatric context, thus reducing the risk of underreporting.

Conclusions

The present retrospective correlational study highlighted that PSV is still a reality in psychiatric wards and a major concern for nursing staff. The violence reported in psychogeriatric wards is particularly alarming with almost half of the reported acts of violence being serious, considering that this may only be the tip of the iceberg. Specifically, this study demonstrated several differences by ward in the objective and subjective measurement of PSV and shed light on the role of gender and age in violence perpetrated and experienced.

These results can inform institutions about the characteristics of PSV and its measurement in psychiatric wards. Institutions could also use the data obtained for more tailored interventions, including raising awareness that patients' age decreases subjective ratings of the severity of violence (e.g., through focus groups, in training courses). Addressing these perceptions would improve the care they provide to both patients and staff.

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