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Gender differences in reporting workplace violence: a qualitative analysis of administrative records of violent episodes experienced by healthcare workers in a large public Italian hospital

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ABSTRACT

Objectives This study aims to analyse, from a descriptive and qualitative point of view, the episodes of violence reported by healthcare workers (HCWs) in a large public Italian hospital. Qualitative analysis permits us to collect the victims' words used to describe the event and the ways in which they dealt with it. A comparison between genders was performed to better understand what type of different strategies could be used to improve the prevention of workplace violence for HCWs.

Design and setting The retrospective observational study was carried out in 'Città della Salute e della Scienza', a complex of four interconnected hospitals situated in Northern Italy. This study analysed aggression data from the 4-year period of 2015–2018 that included all HCW categories. The data were obtained from the aggression reporting form.

Participants The analysed records were supplied by 396 HCWs (3.6% of all HCWs in the hospital).

Results Male HCWs aged <30 years did not report violent episodes that occurred in the workplace, while male HCWs with 6–15 years of work experience reported more violent episodes than their female counterparts. Among the HCW professions, nursing was the profession, in which HCWs were more prone to experience a violent episode, while male medical doctors were more prone to report violent episodes than female medical doctors. Moreover, female HCWs experienced more verbal violence (insults) than male HCWs did, while male HCWs experienced more physical violence (bodily contact) than female HCWs did.

Conclusions The findings from this explorative study suggest that there is a gender difference in the characteristics of workplace violence perpetrated by patients, patients' relatives and visitors and in the way in which these episodes are described. Consequently, it is important for informative and preventive courses to consider gender differences in experiencing a violent episode.

Strengths and limitations of this study

► A qualitative analysis was used to collect the victims' descriptions of workplace violence.
► The method permits the capture of respondents' points of view.
► The comparison between genders could be useful to improve the prevention of workplace violence in this population.
► It was not possible to overcome the bias in reporting violence.
► Unreported incidents could not be included in the study.

INTRODUCTION

Workplace violence has been defined by WHO as 'the intentional use of power, threatened or actual, against another person or against a group, in work-related circumstances, that either results in or has a high degree of likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation'.[1]

As noted by several investigations,[2–4] the healthcare sector is at particular risk of workplace violence. Elliott[5] estimated that the risk of violence from patients and their relatives towards healthcare workers (HCWs) is 16 times higher than that towards other workers. This risk is highest for HCWs working in psychiatric wards and emergency rooms[6 7] since they report more violent events than other HCWs, such as those working in wards.[8–10] As suggested by Renwick *et al*,[11] it is possible that subjects who work in other wards have biassed their answers, presenting themselves as at less risk than they are in reality because of such complex reasons as denial and social stigma of reporting workplace

violence. At the same time, working in wards with patients who are more dangerous because they suffer from mental illness (psychiatric ward) or are under the influence of drugs or alcohol (emergency room), may make workers who are victims of violence feel more comfortable about reporting violent episodes.

Moreover, the risk of aggression is highest for HCWs working as nurses since they report more violent episodes than do physicians and administrative staff.[12] A possible explanation for this finding is linked with the nature of their job, as nurses have direct contact with patients (who could be confused, frightened or delirious) and their families/friends.[13–15] In this case, a possible explanation could be found in the sample bias, since in the literature about nurses being assaulted, respondents who had been assaulted would be expected to have a higher rate of response than those who had not been assaulted.[16]

Another possible explanation is linked to gender: in some countries, such as Italy, in more than 70% of cases, nurses are female,[17] and some studies have shown that female workers are more often affected by violence than their male colleagues.[18 19] Gender is also related to the type of violence experienced by HCWs; the investigation by Magnavita and Heponiemi[10] showed that, in hospitals, female nurses experienced verbal violence (such as yelling and screaming) more often than male nurses, who were more often victims of physical assault (such as hitting and kicking). Moreover, the importance of investigating the gender difference in workplace violence experienced by HCWs was noted by Lawoko et al[14]: 'intervention/prevention measures need to review the gender and profession issue. It is likely that men and women, psychiatrists and nurses may require different interventions related to their specific problems' (page 51). These types of violent episodes affect the perceived well-being of HCWs and could lead to several consequences, such as the interruption of work, medical treatment, and hospital and/or home care; psychological support might be needed for the HCWs to cope with the event.[20] Workplace violence might also lead staff to leave the profession.[21]

Furthermore, workplace violence in this sector could be related to turnover intention through occupational stress first and then burnout[22]: regarding this, Kim et al[23] suggested that the prevention of workplace violence is one way of reducing burnout in the healthcare sector.

An interesting question concerns the reports made by HCWs regarding violent episodes in the workplace. Findings from investigations have shown that violence, especially verbal violence,[2] in the healthcare sector is under-reported.[24 25] The under-reporting of violence is not a phenomenon that involves only workplace violence. All forms of violence (sexual harassment, domestic violence, school bullying, and so on) are under-reported for different reasons, including both the stigma of victimisation, such as shame, isolation, and fear, and the threat of further violence, which often deter victims from reporting violent episodes.[26]

Moreover, for HCWs, there is a risk of desensitisation to violence, as violence—due to contact with frail and ill people—is perceived as part of an HCW's job.[27] Nevertheless, the reporting of any act of violence is fundamental in engaging hospital management to activate appropriate organisational responses. Indeed, the administrative records of violent episodes experienced by HCWs constitute an important source of information[19] about the type of violence (physical or verbal), the type of perpetrator (patient, relative or visitor), the type of HCW (administrator, midwife, nurse or physician), the place in which the HCW experienced the violence (psychiatric ward, emergency room or ward) and the type of activity that she/he was doing (support activity for patients, professional team back-office activity, or assistance and patient care). These records permit the prevention of workplace violence, providing information about, for example, the type of training course that a particular HCW subpopulation needs and/or the safety devices that should be installed in a particular ward.

In Europe, the Fifth European Working Conditions Survey[28] shows that, on average, 14.9% of workers reported levels of subjection to adverse social behaviour, and the highest level was in the healthcare sector (23%). The overall percentage of reported levels of subjection to adverse social behaviour in Italian workers was 8%; in the healthcare sector, this percentage was 41.4% of the workers.[29] There were 1200 total violent behaviours reported by HWCs in 2018. In most cases, (70%), the victim was female, and the perpetrator was a patient, a patient's relative or a visitor.[30] To deal with this phenomenon, in 2007, the Italian Ministry of Health published Recommendation no. 8, 'Preventing acts of violence against health workers'. This recommendation had several goals. First, it oversees the reporting of incidents of violence using official sources, such as the judicial authority, the police forces and the National Workplace Accident Institute. Second, it promotes the collection of data through specific surveys to identify the frequency and severity of violent episodes. The results could be useful for adopting appropriate action from an organisational and structural point of view, for example, redesigning the space and/or reformulating procedures for access to the ward. Moreover, data could be used to improve the training courses that aim to prevent violence, to improve the coping strategies and to reduce the negative consequences.[31]

This study aims to analyse, from a descriptive and qualitative point of view, the episodes of violence experienced by HCWs working in a large public Italian hospital. The qualitative analysis permits us to collect the victims' words used to describe the event and the ways in which they dealt with it.[32] The advantage offered by this method is that it allows us to capture respondents' points of view without predetermining their answers.[33 34] This approach is widely used in social science research[35] and has been used to investigate HCWs' perceptions of physical and verbal aggression.[8 36 37] It has also been used, for example, to investigate the descriptions of violent behaviour provided

by workers[38] and perceptions of the organisational safety climate.[39]

A comparison between genders was used to better understand what type of differences, if any, could be used to improve the prevention of workplace violence for HCWs. Based on the literature review presented above, the hypothesis is that there are gender differences in the violent episodes experienced by female and male HCWs: female HCWs experience more verbal violence than their male colleagues, and male HCWs experience more physical violence than their female colleagues. Moreover, from the analysis of the episodes, as described by female and male HCWs, we expected that the observed semantic differences characterised the experience of victimisation. This is the novel contribution of this work. We do not have specific hypotheses about the relationship between gender and the lexical words used to define the violent episodes; therefore, we intend to analyse this relationship from an explorative perspective.

METHOD

The retrospective observational study was carried out in Città della Salute e della Scienza (City of Health and Science University Hub), a complex of four interconnected hospitals situated in Northern Italy. It has 1917 ordinary hospital beds and more than 400-day hospital and day surgery beds, and it is one of the largest national and European health hubs, boasting approximately 12 000 employees. This study analysed aggression data from the 4-year period of 2015–2018 that included all worker categories. The data were obtained from the aggression reporting form adopted in 2014 in compliance with the above-mentioned recommendation of the ministry of health. The form is available on the intranet portal, and all parts of the form must be completed by victims of assault within 72 hours of the event and sent to the Safety and Environment Office. Each administrative record of a violent episode contains the following information: the sociodemographic data of the victim (age, gender, years of experience and profession), workplace in which the violent episode occurred (psychiatric ward, emergency room or ward—one item), the type of activity performed by the HCW at the moment of aggression (ie, conversation), the HCW's shift at the time of aggression, the type of aggressor (the perpetrator could be more than one person: patient, patient's relative or visitor—three items, yes/no answers), the misconduct (violent behaviour could be of more than one type: insult, verbal threat, bodily contact, throwing objects, or use of a weapon—five items, yes/no answers), the consequences (consequences could be of more than one type: interruption of work, medical treatment, psychological support, hospital care, home care or no consequence—five items, yes/no answers), the possibility of preventing the attack (one item, yes/no answer) and the description of the event. Similar to other investigations (see Magnavita and Heponiemi[10]), age was categorised as <30, 30–39, 40–49 and

≥50 years, and the years of experience were classified as ≤5, 6–15, 16–25 and >25 years (one item each). The type of activity was categorised as support activity for patients (eg, meal preparation and administration), professional team back-office activity (eg, treatment prescriptions) and assistance and patient care (eg, assistance at the front desk)[40] (one item). The profession was categorised as midwife, nurse, medical doctor, administrative staff or technician (such as a radiologist) (one item). The work shift in which the aggression occurred was categorised as morning (6:00–00:00 hours), afternoon (00:00–18:00 hours), evening (18:00-24:00 hours) or night (0:00-6:00 hours) (one item).

Procedure

Data were analysed by the authors of this paper and by assistants trained by researchers. Records were transcribed in a database; sensitive data (name, surname and worker's registration number) were omitted. This procedure was in accordance with the code of ethics of the Italian Association of Professional Psychologists and with Italian law concerning privacy. The files that constituted the corpus of administrative records were saved in a folder. Overall, the sample contained 418 records. The inclusion criteria for the episodes in this analysis were the record describing the case of violence perpetrated by a patient, a relative or a visitor. Thus, 14 records were excluded because the perpetrator was a colleague, a subordinate or a supervisor. Moreover, eight records were excluded because the gender of the victim was omitted. Therefore, 396 records were included in the present work.

Data analysis

Descriptive statistics were calculated using IBM SPSS Statistics, V.24. Descriptive measures (mean±SD) were calculated for all the continuous variables. Because of the categorical nature of the data, χ^2 tests were used to examine gender differences, followed by effect-size calculations (Phi and Cramer's V) to estimate the practical significance of the differences. As a post hoc test, standardised Pearson residuals (from this point forward: SPRs) were calculated for each cell to determine which cell differences contributed to the χ^2 test results. SPRs with absolute values greater than 1.96 indicated that the number of cases in that cell was significantly larger than would be expected (in terms of over-representation or under-representation) if the null hypotheses were true, with a significance level of 0.05.[41]

As suggested by Matteucci, Tomasetto,[42] content analysis was used to process the written description of the violent episodes. Content analysis is defined as 'the systematic assignment of communication content to categories according to rules and the analysis of relationships involving those categories using statistical methods' [[43] p. 3]. These data were analysed using Alceste V.6.0.[44] This software permits the analysis of written data according to a descending hierarchical classification, in which the text is divided into elementary context units and categorised

Table 1 Sociodemographic characteristics of the female and male HCWs who experienced violence

	Female n= 302	Male n= 94	χ2	P value
Age			9.45	0.024
<30 years	17(5.7)	-		
30-39 years	83(27.9)	18(19.4)		
40-49 years	105(35.4)	41(44.1)		
≥50 years	92(31)	34(36.6)		
Years of experience			10.24	0.017
≤5	44(14.8)	6(6.5)		
6-15	128(43)	53(57)		
16-25	80(26.8)	27(29)		
>25	46(15.4)	7(7.5)		
Profession			13.11	0.011
Midwife	39(13.1)	14(15.1)		
Nurse	236(79.2)	62(66.7)		
Medical doctor	11(3.7)	11(11.8)		
Administrative staff	9(3)	6(6.5)		
Technician	3(1)	-		
Workplace			4.38	n.s.
Psychiatric ward	35(38.5)	84(28.3)		
Emergency room	104(35)	23(25.3)		
Ward	109(36.7)	33(36.3)		
Type of activity			3.61	n.s.
Support activity for patient	125(45.8)	40(48.8)		
Professional team's back-office activity	77(28.2)	15(18.3)		
Assistance and patient care	71(26)	27(32.9)		
Work shift			0.55	n.s.
Morning	85(28.5)	30(32.3)		
Afternoon	124(41.6)	36(38.7)		
Evening	64(21.5)	20(21.5)		
Night	25(8.4)	7(7.5)		
Perpetrator				
Patient	173(57.3)	56(59.6)	0.15	n.s.
Patient's relative	157(52)	35(37.2)	6.25	0.012
Visitor	4(1.3)	5(5.3)	5.15	0.023
Misconduct				
Insult	252(83.4)	67(71.3)	6.78	.009
Threat	141(46.7)	42(44.7)	0.12	n.s.
Bodily contact	77(25.5)	37(39.4)	6.72	0.01
Throwing objects	42(13.9)	20(21.3)	2.95	n.s.
Use of a weapon	14(4.6)	5(5.3)	0.07	n.s.
Consequences				
Interruption of work	61(64.9)	210(69.8)	0.79	n.s.

Continued

Table 1 Continued

	Female n= 302	Male n= 94	χ2	P value
Medical treatment	29(9.6)	14(15.1)	2.15	n.s.
Psychological support	16(5.3)	6(6.4)	0.16	n.s.
Hospital care	2(0.7)	1(1.1)	0.15	n.s.
Home care	-	2(2.2)	6.53	0.011
No consequences	64(21.3)	26(28)	1.76	n.s.
The attack could have been prevented	104(40)	25(29.4)	3.07	n.s.

n.s.=not statistically significant.
The percentages (n=396) are in brackets
HCWs, healthcare workers.

into homogeneous classes. The software allows for the isolation and separation of internally homogeneous groups (or classes) within specific populations. Classes are formed on the basis of the co-occurrence of forms and units of context.[42] The software uses symbols to indicate the type of root. If the word is followed by the symbol <, this indicates that only the root of the word is recognised (eg, aggressi <denotes the words aggressive, aggression and aggressively). The symbol +indicates the identification of the termination and of different forms with the same root (eg, nurse +indicates the words nurse and nurses). The first class that is formed will be the most homogeneous in terms of content, that is, the one whose lexical universe (a specific vocabulary that is used and to which the speaker attributes relevant meaning) appears to differ from those of others. The software performs the χ^2 test on the association between words and classes to identify the specific vocabulary for each class. This step allows the researcher to identify the lexical worlds in the text, thai is, the 'usual places' (conventional themes) of discourse.[45] The software allows for repeated segments to be highlighted, that is, associations of the most frequent words in a class and related classes with the selected variables. These are called illustrative variables and carry further information about the textual corpus, allowing the researcher to identify the specific characteristics that define individuals who share the same semantic universe.

In this study, the findings from the descriptive analysis were used as illustrative variables for the text analysis. An example of an illustrative variable is *midwife, which indicates the profession of the HCW who draws up the administrative record to report the violence experienced in the workplace. The resulting data were examined by three independent and autonomous subjects, as suggested by Annese and Mininni.[46] This phase was followed by a discussion of the meaning attributed to the data to reach an agreement on the results. Consistency was guaranteed by reproducibility (or intercoder reliability[47]; Cohen's k=0.85).

Patient and public involvement

Patients were not involved in the planning and conception of this study.

RESULTS

Descriptive analysis

Overall, the records were compiled by 396 HCWs (3.6% of all HCWs working in the hospital). A total of 302 HCWs (76.3%) were female, representing approximately 4% of the entire female HCW population; 94 (23.7%) were male, representing 3.1% of the entire male HCW population. Most of the HCWs were aged 40–49 years (146, 36.9%; 4.7% of the entire HCW population aged 40–49 years). Regarding years of experience, most HCWs were in the range of 6–15 years (181, 46.3%; 6.1% of the entire HCW population with 6–15 years of experience). Two hundred and ninety-eight HCWs (76.2%) were nurses (26.6% of the entire nurse population), 53 (13.6%) were midwives (25.4% of the entire midwife population), 22 (5.6%) were medical doctors (1.2% of the entire medical doctor population), 15 (3.8%) were administrative staff (1.7% of the entire administrative staff population) and 3 (0.8%) were technicians (0.5% of the entire technician population). Table 1 presents the sociodemographic characteristics of the female and male HCWs who experienced violence.

Regarding the age of the victims, the findings showed a statistically significant difference between genders (Cramer's V=0.16). In particular, there were no male victims aged <30 years (|SPR|=−2.0). Male HCWs with

Table 2 Findings from text corpus of administrative records compiled by female HCW victims of workplace violence

Class I—waiting time		Class II—physical attack	
Words	χ^2	Words	χ^2
Visit<	20	Kick+	88
Wait<	17	Agitat<	76
Therap+	13	Cris+	69
Work<	12	Personal+	63
Triage	11	Object+	56
Illustrative variables: emergency room, ward		Illustrative variables: psychiatric ward, midwife	

HCW, healthcare worker.

6–15 years of experience referred more frequently to episodes of violence (|SPR|=1.7, Cramer's V=0.16) than did female HCWs. Moreover, male medical doctors referred more frequently to episodes of violence than did female doctors, and these episodes of violence occurred more frequently for male medical doctors (|SPR|=2.5, Cramer's V=0.18). The perpetrator was a patient's relative for more female HCWs than male HCWs (52% and 37.2%, respectively, p=0.012), while the perpetrator was a visitor for more male HCWs than female HCWs (5.3% and 1.3%, respectively, p=0.023). Regarding consequences, home care was indicated by male HCWs, while female HCWs did not mention it.

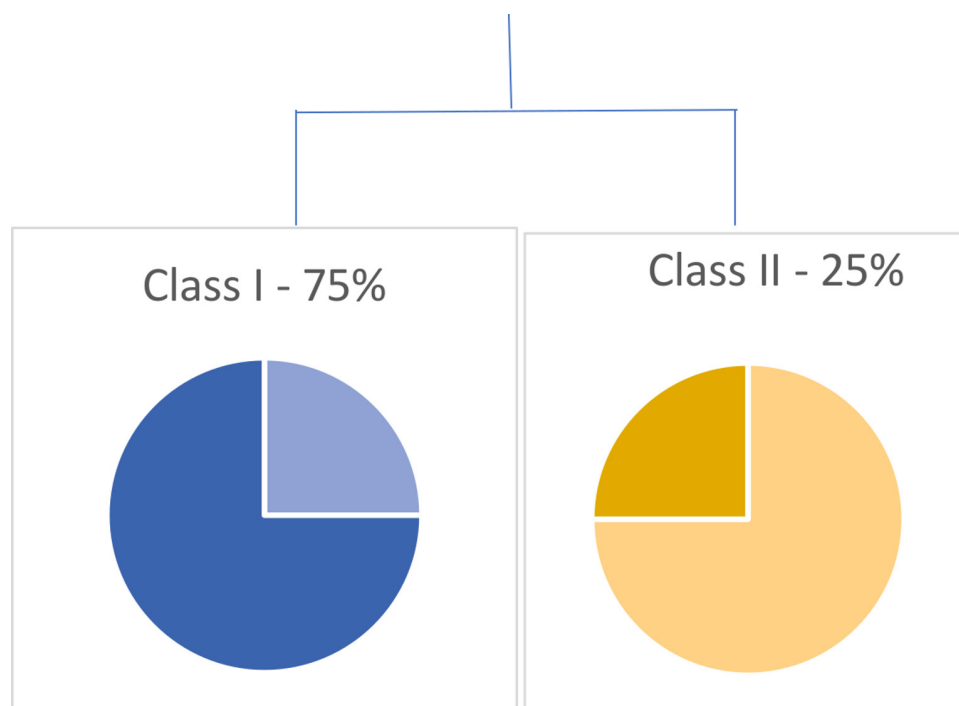**Figure 1** Text corpus of administrative records compiled by female HCWs victims of workplace violence. The dendrogram shows the classification procedure used to create the two classes that emerged (amount of variance explained=96.9%). Class I explained 75% of the variance and was labelled waiting time. Class II explained 25% of the variance and was labelled physical attack. HCWs, healthcare workers.

Text analysis

Based on findings from the descriptive analysis, age, years of experience and profession were used as illustrative variables. The analysis of the administrative record drawn up by female HCWs showed that the corpus was composed of 14951 occurrences (frequency of words in absolute values), 2739 distinct forms (words with frequency >3; mean frequency=13 per form) and 1345 hapax (words used only once, occurrences with a frequency=1). The overall number of elementary context units was 516. The five most frequent words (associated forms) in the corpus were patient+ (n=329), aggressi< (n=125), medic< (n=62), wait< (n=61) and staff (n=39). The dendrogram of stable classes (figure 1) shows the classification procedure used to create the two classes that emerged (amount of variance explained=96.9%). For each class, the first characterising five words are presented in order of the χ^2 results (table 2), together with the associated illustrative variables.

Class I explained 75% of the variance and was labelled Waiting time. The most representative words in terms of χ^2 describe the violent episodes as a consequence of patients and relatives waiting for a visit or therapy or of the assignment of degrees of urgency to wounds or illnesses to decide the order in which patients will be treated. This waiting time was considered by the perpetrator as unacceptable. The following sentence is an example of how a female HCW described a violent episode.

The patient's relatives were complaining about the waiting time. They could tell that the staff were overworked. The patient's son and daughter repeatedly came into the emergency room instead of waiting in the hall. The patient's son said to not annoy him

because otherwise there would be trouble (nurse, aged 30–39 years, 6–15 years of work)

Class II explained 25% of the variance and was labelled Physical attack. This lexical world refers to the behaviours demonstrated by psychiatric patients during routine activities, such as the distribution of meals. Perpetrators were described as patients who suffered from a psychotic crisis and who physically assaulted an HCW. The sentence below provides an example of a respondent's textual production.

At the end of the dinner, the patient had a crisis; he became aggressive with staff that was around him and kicked me in the face, cutting my upper lip (midwife, aged 30–39 years, 6–15 years of experience)

The analysis of the administrative record drawn up by male HCWs showed that the corpus was composed of 3804 occurrences, 1271 distinct forms (mean frequency=9 per form) and 795 hapax, that is, words used only once. The overall number of elementary context units was 144. The five most frequent words (associated forms) in the corpus were patient+ (n=103), aggressi< (n=34), threat+ (n=29), person< (n=26) and medic< (n=20). The dendrogram of stable classes (figure 2) shows the classification procedure used to create the five classes that emerged (amount of variance explained=93.6%). For each class, the first characterising five words are presented in order of the χ^2 results (table 3), together with the associated illustrative variables.

The dendrogram (figure 2) shows the classification procedure used to create the five classes that emerged and highlights which classes are closer and therefore
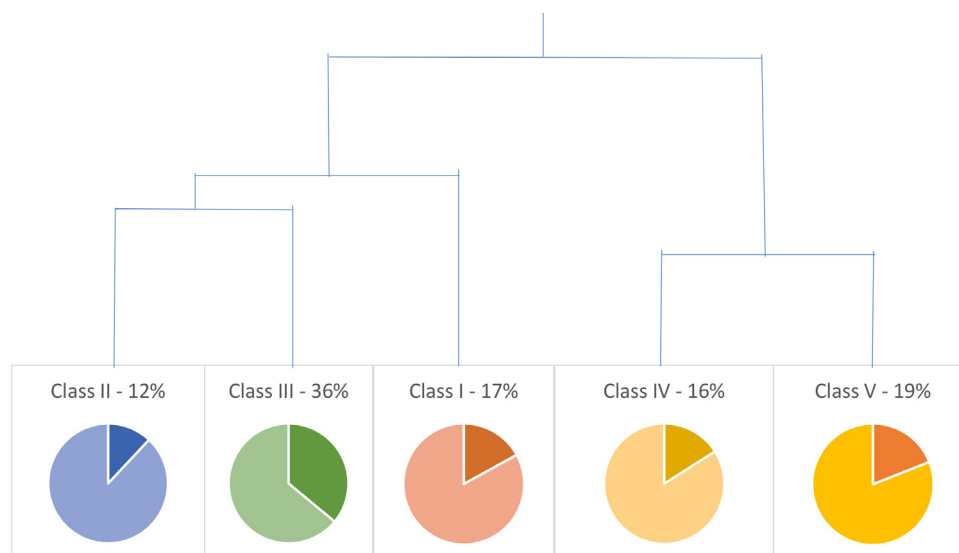
Figure 2 Text corpus of administrative records compiled by male HCWs victims of workplace violence. The dendrogram shows the classification procedure used to create the five classes that emerged (amount of variance explained=93.6%). The dendrogram shows that classes I–III are more similar than classes IV and V. At the same time, classes IV and V are more similar than the other classes. Classes I–III explain—together—65% of the variance; classes IV and V explain 35% of the variance. Classes I–III were labelled verbal violence. Classes IV and V were labelled Corporeal assault. HCWs, healthcare worker.

Table 3 Findings from text corpus of administrative records compiled by male HCW victims of workplace violence

Verbal violence							Corporeal assault			
Class I		Class II		Class III			Class IV		Class V	
Words	χ^2	Words	χ^2	Words	χ^2		Words	χ^2	Words	χ^2
Wait<	47	Insult<	48	Colleague+	12		Launch<	57	Follow<	24
Ask<	30	Staff	11	Ward	11		Object+	45	Therap+	20
Visit	25	Motiv<	10	Verbal<	11		Kick+	22	Nois+	19
Time	24	Recei<	9	Patient+	9		Hit<	16	Attempt<	15
Behaviour+	24	Phon+	9	Relative+	9		Person<	16	Violen<	15
Illustrative variables: emergency room, nurse		Illustrative variables: emergency room, professional team's back-office activity		Illustrative variables: ward, medical doctor, midwife			Illustrative variables: psychiatric ward, administrative staff		Illustrative variables: psychiatric ward, nurse	

HCW, healthcare worker.

more similar. Specifically, the dendrogram shows that classes I–III are more similar than classes IV and V. At the same time, classes IV and V are more similar than the other classes. Classes I–III explain—together—65% of the variance; Classes IV and V explain 35% of the variance.

Classes I—III were labelled Verbal violence. The words characterising these classes were related to violent behaviours—such as insults and threats—that HCWs experienced principally in the emergency room and ward, both through direct contact (face to face) and by phone. In these episodes, one or more colleagues were involved. Below are some examples from the descriptions of violent events made by male HCWs:

> Before the conclusion of the visit, the father started to attack me verbally. He told me 'I pay the taxes, I ask you to do everything, I do not go out until the child has a diagnosis'. After reiterating that it is not possible to perform this exam in an emergency room, the father threatened me and the nurse verbally, repeatedly (medical doctor, aged 40–49 years, 6–15 years of experience)

> I phoned the patient's son to inform him of the imminent discharge of his father. I was insulted with elevated tone repeatedly. It was impossible to manage communication; I did not reply in any way to the insults (nurse, 6–15 years of experience)

> The patient's husband accused me and my colleague of not respecting the numbering in the call for assistance. The colleague explained to him that there is a work plan, but he verbally attacked us (nurse, aged≥50 years, 16–25 years of experience)

Classes IV and V were labelled Corporeal assault. The words characterising these classes were related to physical violent behaviours—such as hitting and throwing objects—which HCWs experienced principally in the psychiatric ward. Below are some examples of sentences from administrative records:

> While my colleague and I were preparing a medication, we were interrupted by the noise of shots coming from the kitchen door. Then, we were reached for and assaulted by the patient (nurse, aged>50 years, 6–15 years of experience)

> An agitated patient—for no apparent reason—pushed a cart against the entrance door to break through. He was shunted out, and then he came back and threatened to break our arms (administrative staff, aged 40–49 years, 16–25 years of experience)

DISCUSSION

The findings from the descriptive analysis showed some differences based on the HCW's gender. Male HCWs aged <30 years did not report violent episodes that occurred in the workplace, while male HCWs with 6–15 years of

experience reported more violent episodes than their female counterparts did. Among the HCW professions, nursing was the profession in which HCWs were more prone to experience a violent episode, confirming the results of.[11] Nevertheless, the findings showed that male medical doctors were more prone to report violent episodes than female medical doctors. Confirming the findings of Magnavita and Heponiemi,[10] in this study, female HCWs experienced more verbal violence (insults) than male HCWs did, while male HCWs experienced more physical violence (bodily contact) than female HCWs did. Thus, our hypothesis was confirmed. An interesting finding concerns the perpetrator: female HCWs experienced a violent episode acted out by a patient's relative more often than male HCWs did, and male HCWs experienced a violent episode acted out by a visitor more often than female HCWs did. Regarding the workplace, type of activity, and work shift, no statistically significant difference between genders emerged. This finding did not confirm the results of Magnavita and Heponiemi,[10] as in this study, it was not found that male HCWs experienced workplace violence in wards more often than female HCWs did.

Text analyses showed that female and male HCWs reported violent episodes in different ways. The findings from the text analysis of female HCWs identified a contextual factor for the violent episodes that occurred principally in those who were working in emergency rooms and wards. This contextual factor is the waiting time, a condition in which a patient and a patient's relative—as suggested by Schablon *et al*[15]—could experience anxiety, confusion and fear. Moreover, female HCWs (in particular, midwives) describe the violent episodes that occurred in the psychiatric ward as a consequence of a mental health disorder and noted that the assault was unpredictable. Thus, it seems that female HCWs perceive dealing with violence as part of their role.[48] Male HCWs use different words to describe violent episodes. They, more often than female HCWs, described the episodes including the witness of the episode, namely, colleagues. Male HCWs described episodes that occurred in the emergency room and ward (verbal violence) and in the psychiatric ward (corporeal assault) in the same way that female HCWs did. These episodes were related more to the type of profession than to the gender of the HCWs. The other illustrative variables (age and years of experience) did not have an effect on the differences between how male and female HCWs experience violent episodes.

This study has strengths and limitations. Regarding strengths, in this study, administrative records in which HCWs experienced violent episodes were used. Usually, self-administered questionnaires are used to collect data about workplace violence. However, self-assessment could be affected by recall bias[49]; thus, this method does not solve the problem of over-reporting or under-reporting: a long study period could also influence the victim's memory. The analysis of reports completed within 72 hours of the aggression permits the retrieval of important information about the episode. Moreover, in this study, a qualitative analysis was used to identify differences between genders in reporting these episodes. According to Griffiths and Schabracq,[50] the majority of studies in work and health psychology and investigations on workplace violence use a quantitative approach: this choice stems from the fact that this method allows large numbers of subjects to complete standardised questionnaires. Otherwise, a qualitative approach permits the gathering of the complexity and nuances of individual experiences and reveals the range of ways in which common features operate in experiences of workplace violence.[51] Indeed, this method was useful to better understand the lexicon that characterised the victimisation experienced by female and male HCWs.

This study also has weaknesses. First, because HCWs decided whether to report violent episodes, the results cannot be generalised and should be taken with caution. Thus, it was not possible to overcome the bias in reporting violence, as HCWs may be more likely to report serious events and exclude less serious ones.[24] Future research should explore, in a more comprehensive way, this phenomenon within health organisations. For example, interviews and focus group discussion techniques could be used to better understand the obtained results and how to promote the reporting of all violent behaviour, not only the most serious events: as recommended by the Italian Ministry of Health,[31] a better comprehension of workplace violence could be useful to prevent it. Another limitation is in the procedure adopted: administrative records had different styles of reports, which we tried to make homogeneous through a classification procedure. This process included a subjective component, which must be considered in any narrative analysis.[52] The use of a mixed-method technique could permit the description of the phenomenon by a quantitative and qualitative approach. Future research could use this technique to expand the scope and improve the analytic power of studies on workplace violence in the healthcare sector.[53]

CONCLUSIONS

Overall, the findings from this explorative study suggest that there is a gender difference in the characteristics of workplace violence perpetrated by patients, patients' relatives and visitors and in the way in which these episodes are described. Consequently, as noted by Lawoko *et al*[14] and Chen *et al*,[19] it is important in informative and preventive courses to consider gender differences in experiencing a violent episode. For female HCWs, it could be useful to provide clear messages that the acceptance of such violence is not 'part of the job',[27 54] explaining that anger should not be taken as an acceptable emotion in the healthcare environment and that exposure to verbal violence should not be accepted as a hazard of the profession.[55] For male HCWs, it could be useful to reflect on feelings related to the stigma of victimisation and to stress that a witness is not necessary to corroborate a male HCW's version of the event. This finding could be

analysed in greater depth through an investigation that involves witnesses of the violent episodes describing the episodes from their points of view: a follow-up study could include interviews with staff on gender differences in the long-term impact of these events.

Moreover, these findings could be used by health organisation management to better organise the security arrangements in some departments, to manage the overload of the emergency room and to increase the use of safety devices.

In conclusion, the findings could be used by health organisation management to improve individual measures, such as intervention programmes, counselling and psychological help, to reflect on victimisation experiences and the way in which female and male HCWs react to and cope with workplace violence.

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