

Managing and preventing acts of violence against health workers: results of a review evaluating hospital control procedures

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Abstract

Purpose – Violence against health-care workers represents a public health issue that affects individuals, organizations and may have legal consequences. In Italy, workplace violence (WPV) constitutes a “sentinel event”, defined as a particularly serious, potentially avoidable adverse event, which may result in death or serious harm to health-care workers, and which leads to a loss of public confidence in the health-care system. In 2007, the Italian Ministry of Health issued Recommendation No. 8, “Preventing acts of violence against health workers”, inviting each Italian Hospital to develop procedures and guidelines for dealing with and preventing acts of aggression. This study aimed at investigating the appropriateness of the procedures and guidelines developed by the Italian hospitals.

Design/methodology/approach – Procedures on preventing violence against health-care workers published by 29 Italian Hospitals between 2007 and 2020 were collected retrospectively via Web searches and further evaluated according to their compliance with the 2007 Italian ministerial recommendations.

Findings – A total of 9 documents out of 29 were fully compliant with the 2007 Ministerial Recommendation, 18 were partially compliant, while 2 were totally non-compliant. A total of 24 documents explicitly addressed the management of verbal and physical aggression, whereas 20 set appropriate training on de-escalation techniques for nurses and medical staff. Psychological support was fully considered in 11 procedures, partially considered in 14, while not included at all in 4.

Originality/value – Public procedures on preventing violence against health-care workers in Italian hospitals are scarcely compliant with the Ministerial Recommendations. The absence of specific instructions to address the needs at territorial level and the lack of support provided to health-care workers is a weak point in the effective management of WPV.

Keywords Workplace violence, Health-care workers, Hospitals

Paper type General review

Introduction

Workplace violence (WPV) can refer to both physical (e.g. beating, kicking, slapping, stabbing, shooting, pushing, biting and pinching) and psychological (e.g. verbal abuse and threats) violence that occurs at work (Krug *et al.*, 2002; World Health Organization, 2002).

A total of 25% of WPV occurs in the health sector (Iennaco *et al.*, 2013), mainly with a non-fatal outcome, i.e. physical or verbal aggression or attempted aggression, or the use of offensive language. A recent meta-analysis estimated that WPV prevalence is particularly high in nursing homes, with a pooled one-year prevalence estimate of 30.33% (95% CI: 22.32–39.75%), compared to tertiary and secondary hospitals, and primary care facilities, with a pooled one-year prevalence estimate of 22.48% (95% CI: 15.35–31.69%), 18.83% (95% CI: 9.94–32.77%), 6.51% (95% CI: 4.36–9.64%), respectively; nevertheless, violence

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and aggression can occur in all health-care settings (Li *et al.*, 2020). Nurses, nurses' aides and physicians, especially emergency physicians and inpatient psychiatric workers are the professional categories most at risk (McPhaul and Lipscomb, 2004). Violence against health workers is usually perpetrated by patients, family members, visitors and suppliers and can be classified as "external violence" and is different from "internal violence" which takes place between workers (International Labour Office *et al.*, 2002; Phillips, 2016).

Experiences of WPV can lead to severe consequences to the victims, such as physical injury (including death and loss of consciousness) psychological trauma, and legal issues, such as compensations claims or criminal damage claims. Depressive symptoms seem to be a common outcome of WPV, with a prevalence as high as 71.2% in health workers who had experienced aggression (Fang *et al.*, 2018). Furthermore, a full range of psychiatric problems is described as a consequence of WPV: anxiety, frustration, anger, fear, post-traumatic stress disorder and sleep disorders (Baran Aksakal *et al.*, 2015; Edward *et al.*, 2014). WPV has also a negative impact on hospital management, increasing problems such as absenteeism, personnel shortage and negative outcomes on the provision of health services (Pompeii *et al.*, 2015). In addition, lower job satisfaction and higher job burnout in physicians who experienced WPV has been reported (Duan *et al.*, 2019; Erdur *et al.*, 2015).

A recent study carried out in a large-sized Italian hospital showed a workers' victimization rate of 3.3%, with young and less experienced women being more affected by WPV (77.5%), especially nurses and non-medical staff, who are routinely more involved with public contact (Viottini *et al.*, 2020). Gender differences in victimization rates reported female workers to be at higher risk of being victims of verbal and sexual violence, whereas male workers have an increased risk of experiencing physical violence (Acquadro Maran *et al.*, 2019; Aydin *et al.*, 2009). These differences may also stem from a gender-based difference in considering violence: more men than women tend to engage in violent behavior, as women are less likely to justify violence as a legitimate way to achieve their aim (Aharon *et al.*, 2019). However, Wu *et al.* (2015) did not find any gender difference in aggression against health workers, suggesting the need for more investigation on gender differences for WPV (Li *et al.*, 2020). Despite WPV being widespread in health-care contexts, it seems to be more represented in specific departments, such as psychiatric, emergency and geriatric wards (Spector *et al.*, 2014). Ferri *et al.* (2016) reported higher use of verbal violence in emergency departments and geriatric wards, usually perpetrated by relatives, caregivers and visitors, whereas physical violence was principally enacted by patients in psychiatric, neurological, as well as in post-surgery intensive care units.

A further problem is the under-reporting of WPV, especially verbal aggression (Pompeii *et al.*, 2015), data that can be explained by the widespread belief that verbal violence is a "normal" stressor in everyday work life, specifically in health-care provision (Cannavò *et al.*, 2017).

In an attempt to give clear indications for preventing WPV, in 2007, the Italian Ministry of Health issued Recommendation No. 8, "Preventing acts of violence against health workers" (Ministero della Salute, 2007). This governmental act highlights the seriousness of WPV and provides methodological and operational indications to address violence against health workers. Incidents of violence against health professionals are classified as "sentinel events", as they are signals of the presence in the working environment of situations of risk or vulnerability requiring the adoption of appropriate measures for the prevention and protection of workers. In 2005, the Ministry of Labor, Health and Social Policies activated a program to monitor sentinel events with the aim of sharing these data with the Regions and Autonomous Provinces, and the Health Authorities as a univocal method of surveillance and management of sentinel events within national territory to guarantee Essential Levels of Assistance (Ministero della Salute, 2009). The "Permanent Conference on State Regions Relations" of March 20, 2008, concerning the management of clinical risk and the safety of patients and treatments, approved the activation of a National Observatory on Sentinel

Events through the Information System for the Monitoring of Errors in Healthcare (SIMES). Every Hospital must report the occurrence of every sentinel event through SIMES and proceed with an internal audit or root cause analysis to understand the critical issues that led to the event and overcome them through corrective actions ([Ministero della Salute, 2009, 2011](#)).

The Fifth Ministerial Report on the monitoring of sentinel events 2005–2012 ([Ministero della Salute, 2014](#)) reports that acts of violence are the fourth most reported adverse event in hospitals. The data indicate that acts of violence against health-care workers deserves appropriate preventive initiatives that should be implemented through knowledge of existing critical issues and risk factors. [Beattie et al. \(2018\)](#) reported a list of risk elements composed of organizational factors (i.e. long waiting, over-crowding, inflexible visiting hours, lack of privacy), personnel characteristics (i.e. insufficient resources, poor communication, perceived/actual staff incompetence) and clients' perception of the health-care environment as "inhospitable", "dehumanizing" and "unsafe". In addition to these elements, it is necessary to consider also those predisposing to WPV that are specific to health-care facilities. [Pourshaikhian et al. \(2016\)](#) report three main factors: lack or absence of formal and sufficient training programs, the absence of a specific protocol for managing violent situations and delays in response time. Another important legal aspect is related to the provisions of the D. Lgs. (legislative decree) 81/08 on safety of workers and working environments, which includes an assessment of risks for the health and safety of workers.

In Italy, the legislative initiatives have not modified the frequency of WPV, which has increased ([NurSind, 2017](#)). The National Institute for Insurance of Occupational Accidents in its 2018 report evaluates that 23.7% of complaints of WPV are reported by health workers. In the same year a new bill was enacted by the Government (Ddl. 867 "Safety provisions for health and social-health professionals in the performance of their duties") that increased detention penalties for WPV aggressors up to 16 years, established a National Observatory and set up the obligation for health care companies to participate in criminal proceedings as a civil party. This bill is still awaiting the completion of the legislative process. Health-care companies are required to ensure the safety of their operators in compliance with current safety regulations and with the contents of the 2007 recommendation. A survey carried out in 2018 on 60 facilities showed that only 76% of health-care companies had a specific prevention program, and a large number of health-care providers have not developed many of the points of the recommendation such as establishing agreements with law enforcement agencies or guaranteed psychological support to the victim of violence ([Federsanità Anci and Fnomceo, 2018](#)). Overall, it emerged the willingness of the surveyed hospitals to adopt the provisions recommended in 2007, but it is necessary to take into account different types of obstacles such as economic factors (e.g. lack of resources, economic budget constraints) and structural obstacles (e.g. many widespread territorial structures, small structures with difficulties for structural renovations) ([Federsanità Anci and Fnomceo, 2018](#)).

The role of hospitals in WPV management is of paramount importance and needs to be embedded in a wider network that actively collaborates with governmental institutions ([Ministero della Salute, 2007](#)). In this regard, it is important to draw up, disseminate and implement a hospitals' corporate plan for the prevention of acts of violence against health workers. Considering the importance of the prevention of WPV, and the efforts enacted at a legislative level, we investigated how the provisions suggested in the 2007 National Recommendation have been developed by public hospitals in Italy and their compliance to the Ministerial Recommendation.

Materials and method

The official documents of the hospitals, published between November 1, 2007 and March 31, 2020, were obtained by a search on the World Wide Web using the Google search

engine. All public hospitals in Italy were included in the search. Researchers selected hospital recommendations on the following predefined criteria: the full-text includes the terms “guideline” (*linea-guida*), “company procedure” (*procedura aziendale*), “prevention” (*prevenzione*) “violence against health care workers” (*violenza contro gli operatori sanitari*) “health facility” (*struttura sanitaria*) and the names of the 20 Italian regions; and guidelines were of public access. Official procedures retrieved were assessed for eligibility based on title and full-text reading by two independent researchers. The search included all available online procedures based on Ministerial Recommendation No. 8. No other company procedures that did not focus on WPV prevention were considered. We conducted a retrospective data audit of hospitals’ procedure on preventing WPV.

Based on Ministerial Recommendation No. 8 of 2007, we developed a survey sheet to assess the conformity of procedures in public hospitals with regards to the requirements of the Ministerial Recommendations. The Ministerial Recommendation No. 8 of 2007 encourages workplace analysis, related risks and the adoption of initiatives and programs aimed at preventing acts of violence in hospitals and territorial facilities. The Recommendation indicates some areas inside the hospital to be at greater risk, specifically the emergency department, psychiatry, and geriatric wards, waiting rooms and continuity of care services (e.g. basic medical care for situations that cannot be postponed, health problems that cannot wait until the opening of the doctor’s surgery). Hospitals must have a prevention program to spread a zero-tolerance policy against violence, encourage reporting of violent occurrences and facilitating coordination with law enforcement agencies. Analysis of situations is considered an important element to identify risk factors related to WPV using incidents of violence reviews, questionnaires and interviews with personnel involved and work environment inspections. After identifying risks, the organization defines structural, technological and organizational measures to prevent violent situations. In this section, the recommendation pays particular attention to treatment and psychological support of victims. Finally, workers involved in medical services must be trained on risks and management of situations of violence according to the type of health worker.

On the basis of the actions suggested by the Ministerial Recommendation to prevent acts of violence against health workers and their sub-categories, compliance with the following five parameters was assessed on the retrieved hospital procedures:

1. Prevention program: zero-tolerance policy, reporting of violence, coordination with police force and creation of a specific working group.
2. Analysis of working situations: presence of an internal risk analysis, violent episodes review, ad-hoc questionnaire to health-care personnel and work environment inspections
3. Structural, technological and organizational measures: information for health personnel, security devices and measures aimed at limiting access to lethal means.
4. Violence management: staff training for both understanding patients and safety measures with periodic updating and psychological support for victims.
5. Implementation.

Each document included in the study was independently evaluated by the panel members for each of the five points listed above, assessing whether they were present, mentioned without adequate explanation or implementation (partial compliance) or absent. Three examiners, a clinical psychologist, a forensic psychiatrist and a risk management expert completed the ad-hoc survey sheet independently and evaluated the selected documents. Inter-raters’ agreement was established both at the category (e.g. Prevention program) and sub-category level (e.g. zero-tolerance policy, reporting of violence, coordination with

police force and creation of a specific working group). The coefficient of concordance in the evaluation proved to be over 95% on all the selected items.

Results

We retrieved 29 public on-line procedures for preventing violence against health care workers from local public hospital websites based in the following Italian regions: Abruzzo ($n = 1$), Campania ($n = 5$), Lazio ($n = 7$), Liguria ($n = 1$), Lombardy ($n = 1$), Piedmont ($n = 2$), Puglia ($n = 3$), Sardinia ($n = 3$), Sicily ($n = 4$), Umbria ($n = 2$) and Veneto ($n = 1$).

A total of 9 documents presented complete compliance with the 2007 ministerial recommendation, 18 had partial compliance and only 2 were non-compliant. In general, partial compliance was established when multiple subcategories of the parameters were only mentioned or absent. [Table 1](#) shows the compliance and weaknesses of the investigated parameters in partially compliant procedures.

In detail, 13 procedures presented a detailed prevention plan, 15 procedures mentioned it but did not specify or effectively deal with the program, limiting themselves to simply report what was already stated in the Ministerial Recommendation. Specifically, 13 procedures did not report or partially report a zero-tolerance policy, 4 did not indicate how to report the incident, only 4 procedures described a coordination plan with the police force. A total of 12 procedures did not cite a working group. The structural and technological characteristics were specified in 23 public guidelines. In three cases, the structural elements were indicated but not specified, and in three cases they were not indicated. The organizational measures were specifically indicated in 23 cases, in 3 cases no indication was given, and in 3 cases they were indicated, but not specified. A total of 24 documents explicitly explained how to manage verbal and physical assault and how to avoid making the situation worse, only one differentiates and specifies violence management in the emergency room, 1 procedure partially mentioned the management of violent situations and 4 did not. Psychological support was fully considered in 11 procedures, partially considered in 14, while not included at all in 4. A total of 20 procedures have set appropriate training for medical staff, 6 documents only mentioned the possibility of training, and 3 did not include training. The evaluation of the overall retrieved recommendations shows that only 16 procedures have fully deployed the Ministerial recommendation ([Table 2](#)).

Only six procedures based their program on the risk factors identified by internal analysis.

A total of 12 procedures reported a specific list of risk factors, 10 procedures used general risk factors from the Ministerial Recommendation and seven did not report any risk factors. Only nine procedures specifically referred to how violent episodes should be reviewed, 13 proposed a specific questionnaire and 12 included also an on-site inspection ([Table 3](#)).

To investigate possible differences in compliance with the Ministerial Recommendation between Hospitals in North and South Italy we divided the procedures in two geographical macro-areas of Italy (Northern-Central Italy, $n = 13$; Southern Italy, including the Islands $n = 16$). Chi square test disclosed no differences between the two areas over the five parameters and sub-categories.

Discussion

The analysis performed on the hospital procedures for WPV prevention shows that the majority of the procedures have only a partial compliance with Ministerial Recommendation No. 8. The majority lack a comprehensive prevention program, limited to simply reporting the program mentioned in the Ministerial Recommendation. An adequate zero-tolerance policy is usually not developed or is not clear who should develop appropriate policies. In addition, many procedures are not based on the analysis of former violent episodes inside the Health Company. No significant differences emerged in compliance with the Ministerial

Table 2 Specific sub-categories compliance of hospital procedures ($n = 29$) with the 2007 ministerial recommendation No. 8

<i>Sub-categories</i>	<i>Clearly Specified</i>	<i>Mentioned</i>	<i>Absence</i>
Detailed prevention plan	13	15	1
Structural and technological characteristics	23	3	3
Organizational characteristics	23	3	3
Psychological Support	11	14	4
Staff Training	20	6	3

Table 3 Assessment of risk factors to prevent violent acts ($n = 29$)

<i>Risk analysis tools</i>	<i>Clearly Specified</i>
Internal analysis	6
Risk factors related to healthcare facility	12
Incident report	9
Personnel Questionnaire	13
On-site inspection	12

Recommendation between hospitals in central and northern Italy compared to southern Italy. However, an Italian study showed an increased risk of verbal violence against health workers in the south and the islands, explained by understaffing, social-economic imbalance and higher unemployment (Ramacciati *et al.*, 2018). Despite these differences, all hospitals within the Italian national territory should work on the implementation and execution of the Ministerial recommendation.

The recognition of a violent event is an important step to proceed with identification of organizational and logistical interventions, as well as the review of the protocols in use and training of the staff. The importance of a zero-tolerance reporting policy is of uttermost relevance: all episodes of WPV should be promptly reported to management and security personnel and all cases must be reviewed (Phillips, 2016). In thirteen out of the 29 evaluated procedures this policy is only partially implemented.

Most hospitals report detailed organizational, structural, and technological characteristics for prevention of WPV, as suggested by the Ministerial Recommendation.

The evaluation of risk factors must be performed according to local variables. Unfortunately, 23 procedures do not consider an internal analysis for identifying risk factors. In fact, less than half of the procedures propose questionnaires to staff members or organize on-site visits after WPV episodes. These measures are important to assess specific needs and correlated risks in the hospitals. Most hospitals report the risks deduced from the literature and the Ministerial Recommendation in a generic way. Risks reported in literature (Beattie *et al.*, 2019) are specific only in some contexts and should, therefore, be analyzed regarding the individual health facility.

Similar considerations can be done for the management of violence in the different wards. Our data indicate that only one procedure considers the possibility of different strategies to manage violent outcomes in different types of wards. As in hospital wards workers may experience different forms of violence, specific training and preparation is required. Procedures should include ward-appropriate and detailed approaches for the management of violence based on department characteristics in terms of structure and patients (Lepping *et al.*, 2013; Ferri *et al.*, 2016).

Training is specified in most procedures and should be aimed at teaching de-escalation techniques towards aggressive and violent patients and/or relatives. The central role of

communication, and the need to maintain it in all circumstances, is considered one of the most effective means of WPV prevention. Staff and patients experience and share overload, pressure, fatigue and frustrating conditions, and staff members should be aware of their possible role in preventing violence themselves (Shafran-Tikva *et al.*, 2017). Effective communication techniques must be improved in quantity and quality and the staff should be capable of managing conflicts, using de-escalation techniques and negotiation (Wand and Coulson, 2006). None of the evaluated procedures mentioned possible training contents.

Even more problematic is the lack of adequate psychological support for victims of violence in over half of the evaluated procedures. A recent review (d'Ettoire *et al.*, 2018) reported both mental health and well-being problems (e.g. fear, irritation, anger, depression, anxiety, humiliation, feelings of helplessness) as main consequences of WPV, especially following verbal abuse against hospital workers by patients or visitors. Hospitals should be prioritizing psychological health because operators need to feel supported and protected by the institution and have the right to access psychological support. It is, therefore, necessary to provide fast and effective psychological care for WPV victims. Timely intervention in supporting workers brings benefits at an organizational level in terms of medical and legal costs, avoids difficulties in the recruitment and management of personnel, reduces low morale and absenteeism (van Leeuwen and Harte, 2017). In addition, exposure to physical and psychological violence has been linked to the development of burnout (Hacer and Ali, 2019), thus underlining the importance of effective psychological intervention of the health-care facilities towards the victims. Another issue related to WPV in the healthcare setting is that it frequently goes unreported thus preventing both organizations from having a clear picture of the phenomenon and victims from receiving support. Among the reasons underlying this behavior are fear of being stigmatized as "incompetent" or "not fit" for their jobs (Åkerström, 2002; Dick, 2000; Macdonald and Sirotych, 2001), lack of clear policies and procedures, a lack of awareness of reporting methods coupled with a lack of time, supervision and fear of blame and losing their jobs (Song *et al.*, 2021).

Finally, the role of personality traits as risk factors in becoming victims of violence has been poorly investigated and should be an important part of training and support to plan well-targeted intervention on preventing violence (Parmigiani *et al.*, 2016). Future research on personality traits as risk factors and interventions could consider the differences in health-care personnel (e.g. doctors and nurses) related to their different interaction with patients.

Finally, it seems that as for the procedures for patient's suicide prevention in hospitals, there is scarce implementation of the Ministerial Recommendations at local level (Ferracuti *et al.*, 2020), this can be traced back to a critical issue of the absence of specific instructions to address the pertinent territorial and staff support needs in Ministerial Recommendations.

The authors are aware of several limitations of the study. First, the hospital official procedures are generally considered internal documents; therefore, not all hospitals made their documents available for public consultation. This may lead to a selection bias, since only procedures published online could be selected, and there is no obligation for hospitals to upload procedures with public access. Consequently, our search strategy is not free from limits and the data cannot be considered generalizable to the whole Italian national territory. This should open a debate on the importance of sharing procedures for the prevention of WPV and other sentinel events to improve the transparency of preventive actions and allow public access to this information. Finally, another limitation is represented by the lack of availability of other official documents from the hospitals (e.g. human resource documents related to post-event psychological support). Nevertheless, to the best of our knowledge, this is the first survey evaluating the quality of official documents in this field.

The workplace must be a safe place for health workers. The identification of gaps in procedures should be a starting point for improving the organizational and structural processes of health care facilities. Therefore, the government's approach to the WPV is to

implement a zero-tolerance policy against WPV, with all aggressive acts (included verbal violence) by patients considered as entirely negative (Hassankhani and Soheili, 2017). However, this policy lacks clarity in defining problematic violent behaviour and may increase the difficulties in building good interaction between health workers and patients (Whittington, 2002). Procedures should emphasize the highlighted points and provide appropriate tools for practitioners to recognize violence and denounce it. Safety for health workers requires suitable policies: a no violence habit at any level, staff training with specific targets, an in-depth and full analysis of WPV episodes, and improvement in communication between health workers, patients and their relatives. More importantly, there should be the mobilization of resources aimed at taking care of victims of violence among health-care workers to restore their own confidence and identity in their work, to regain access to their own wealth of skills and knowledge, allowing the return to patient care without fear.

In a similar way to the prevention of domestic violence (Tarzia et al., 2020), in addition to a management perspective, another possibility is to work on the perpetrator's perception of him/herself and others, on the assumption of responsibility for committing the violence; and on the reduction in the risk of reoffending by identifying the individual psychosocial factors relating to violence that can be used to establish protection measures for the victims. Furthermore, non-violence against health workers should be included in education campaigns in schools and directed at young people.

This would avoid a sort of "normalization" of violence and build a sense of community around the hospitals where patients and family members together with hospital employees can share a safe workspace.

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