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Violence against healthcare personnel: distribution and effects on health and well-being of workers. Investigation at Sandro Pertini Hospital in Rome

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Violence against healthcare personnel: distribution and effects on health and well-being of workers. Investigation at Sandro Pertini Hospital in Rome[1]

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In the last decade, violence against health personnel by patients and/or their family members has increased and the strategies implemented by health organizations are not sufficiently set to contain the phenomenon adequately. Therefore, I made an investigation to identify the spread of aggressions and the consequences on the well-being of the health staff of Sandro Pertini hospital in Rome in the period 2009-2014. The goal was to highlight the possible psychological and social impact, in order to expand the knowledge on the subject. The results showed that 90.2% of respondents have suffered the consequences of aggression, particularly perceived on their emotional state, working habits, health and wellbeing, lifestyle and out-side-work behaviour.

INTRODUCTION

Violence against health personnel has assumed scientific interest recently. The National Institute for Occupational Safety and Health (NIOSH), an American federal agency that deals with the prevention of worker illness and injury in collaboration with the Centers for Disease Control and Prevention (CDC), describes the violence that occurs on the job as any form of physical and verbal aggression that happens in the workplace. By concept, violence is part of human conduct and anyone can observe the outcomes anywhere in the world. In fact, every year due to self-inflicted, interpersonal or collective violent behaviour, over one million people die and a major part of people become victims of non-fatal injuries. Although, it is difficult to acquire accurate data, the cost of violence is extremely high; indeed, there is a worldwide annual spending of billions of dollars for appropriate delivering healthcare and for national economies in terms of lost working days, legal acts and lost investments (NIOSH, 2002). It is essential to consider that the

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phenomenon of violence, even when it does not cause a physical injury or death, involves in any case considerable problems in affected individuals.

In the specific case of violence against health workers, the aggressions are both physical and psychological. It is alarming that aggressive behaviour performed by patients and/or their families is considered as part of the regular health professional load or is tolerated with acceptance, justifying the aggressive subject. In the last decade, violence against health personnel has increased and the strategies implemented by health organizations are not sufficiently prepared to contain the phenomenon adequately (Dal Pozzo, 2012). Attacks during the work of healthcare personnel include physical and psychological violence, mobbing, bullying, racial harassment, sexual harassment and any other type of abuse by senior colleagues, patient and their family members, visitors and others (Mc Phaul, Lipscomb, 2004).

Therefore, the primary goal of this investigation was to determine the frequency of the verbal and/or physical violence caused by third parties during the period 2009-2014 at the health personnel of Sandro Pertini Hospital in Rome, highlighting their different reactions and repercussions on health and well-being. The hypothesis of my research, in fact, presumes a probable correlation between the phenomenon of violence and the worker's stress.

VIOLENCE AGAINST HEALTH PERSONNEL

The National Institute for Occupational Safety and Health − NIOSH (2002) describes the phenomenon as "any physical assault, threatening behaviour or verbal abuse occurring in the workplace". Nowadays hospitals, previously considered safe places, have to face a steady rise in crime rates, sometimes with violent crimes such as aggression, rape and murder (The Joint Commission, 2010). In the health sector, the phenomenon of violence accounts for almost a quarter of all violence in the workplace. In addition, doctors, nurses, and healthcare professionals are at the top of the list of high-level occupations at risk of aggression. Due to the large size of this phenomenon, the Italian Ministry of Labour, Health and Social Policies has long developed a protocol to monitor the sentinel events. A sentinel event is defined as "an adverse event, particularly serious, potentially avoidable, which can result in death or serious damage to the patient and which results in a loss of a citizen’s confidence in the health service. The occurrence of a single case is sufficient to conduct a cognitive investigation to ascertain what factors have contributed to it and to take appropriate corrective measures from the organization” (Ministry of Labour, Health and Social Policies, 2009, p. 8). Therefore, in the monitoring protocol, the list of sentinel events was extended by inserting "acts of violence to health personnel". The monitoring system seeks to categorize sentinel events; identify risk factors and causes; receive feedback from the structures present on the national territory; prepare and disseminate specific recommendations and avoid other events of the same nature (Ministry of Labour, Health and Social Policies, 2010, 2011).

Prati and Pietrantoni (2009) use the term "critical service events"[2] to indicate any event that may compromise the normal ability of operators to support the healthcare

[2] Term translates from Italian.

emergency. That is the occurrence of events involving death (or death threat), serious injury (or threat to their own or others' physical condition), which may result in the alteration of the psychological state and distress of health personnel. Negative stress manifests itself when "stress conditions and the activation of the body remain in the absence of stressful events or when the body reacts disproportionately to mild stimuli" (Gabassi, 2003, p. 167), representing a strong threat to psychological well-being of health personnel.

EFFECTS OF VIOLENCE ON THE WELL-BEING OF HEALTH PERSONNEL AND ON ORGANIZATION

As indicated in international and national studies, accumulation of stress is a powerful source of violence. Recognizing the workplace violence as an important factor that can cause a post-traumatic stress disorder or work-related stress is crucial to assess the overall impact on the individual, but also to determine its cost on the organizations. Indeed, workplace violence has a profound impact on work performance and productivity (Di Martino, 2002).

The effects of violence are determined both on the healthcare personnel and on the whole organization, including *direct costs*: incidents; disease; minor or severe physical injuries; sexual dysfunction; physical disability; psychological trauma; burnout; death; absenteeism; staff turnover. *Indirect costs* are decrease of working performance; decrease of motivation and humour; loss of worker's confidence in themselves and in their personal professional skills; implementation of avoidance behaviour; lessened competitiveness; decrease in trusting colleagues and management. Furthermore, *even less tangible costs* can be damage to the organization's image; decrease of loyalty in the organization; decrease of creativity levels; a poor work environment to perform efficiently (Di Martino, 2002; NHIOS, 2002). In addition, among the consequences of physical, sexual and verbal abuses, there are also feelings of shock, disbelief, shame, guilt, anger, fear and sexual impotence that may result in anxiety and depression. Violent aggression can have destructive and negative impacts on those who attend the violent event, be it the victims and/or their relatives; and in this case, violence against health care personnel, can have a destructive impact on the care and safety of the patient (ICN, 2006). In fact, an aggressive event can adversely affect the operator's problem-solving skills and increase the risk of making a mistake or being distracted, because healthcare providers tend to pay less attention to aggressive patients (Fabbri, Gattofoni, Morigi, 2012). Unfortunately, the role-played by formal and non-formal social control agencies, as well as the excessive bureaucracy that the victim faces as a result of aggression, are factors that influence the phenomenon of *underreporting* and the risk of secondary victimization, causing a strong sense of abandonment, acceptance and frustration in the victims of aggression (Sicurella, 2012). Indeed, the actual size of these events is not yet well known, but it is evident that the cases that emerged represent only the tip of an iceberg, particularly for nursing staff of emergency departments.

DIFFUSION AND ANALYSIS OF THE PHENOMENON IN ITALY

In Italy, unfortunately, the phenomenon of violence against healthcare professionals has recently caught attention and little research works on this issue are totally inadequate to describe in depth the size of the problem. Nevertheless, the INAIL data of 2007 for 2005 reported a 21% increase of injuries in health workplace, both inside and outside hospital, compared to the previous five years, in spite of the 10% increase of health personnel employed.

In 2005, the incidence of injuries in the whole sector was 34,500 cases, of which approximately 19,000 in hospital internal units. Most of the complaints, up to 70%, are made by females, which represent for about half of fatal accidents, or rather a dozen in 2005 of which a third in hospitals (Brusco, Bucciarelli, Resconi, 2007). Becattini *et al.* (2007), in a research on 15 emergency departments of 14 Italian regions, representing the entire national territory, describe this situation: almost all of the nurses interviewed were verbally assaulted (90%) or witnessed aggression against colleagues (95%); 35% suffered physical violence and more than half witnessed it (52%). Less than a third of nurses (31%) needed medical attention after an aggression, of which 13% with prognosis up to 5 days, 11% with prognosis 5 to 15 days and 6% higher than 15 days (Ramacciati, Ceccagnoli, 2012).

In the 2009-2012 period, the aggressive events in ASL[3] Rome B were examined, through the analysis of Incident Reporting, employee complaints, work injury reports and security reports. The outcomes describe the following situation: officially reported aggressions are 66, averaging 10 per year, but since 2012 we witnessed an unprecedented increase in physical and verbal aggression, whose incidence doubled in comparison with the year 2012 in the first six months of 2013. Then, acts of violence occur more frequently in the emergency room and psychiatric, medical and surgical areas. Recently there is an increase of prognosis for up to 10 days and the main aggressors are identified as psychiatric, alcoholic and/or drug addict patients, as well as patients with long waiting time in emergency areas (Sesti, Cannavò, 2013).

Therefore, there is an evident need in Italy to extend the studies on the spread of violence against healthcare personnel, in order to deepen the characteristics of the risk factors and the consequences on their health and well-being, identifying forms of prevention and early intervention for the victims.

RESEARCH METHODOLOGY

The research was conducted between October 2014 and January 2015 through a descriptive methodology using quantitative and qualitative mixed techniques. The goal was to ensure the validity of the data and produce the most significant results, hoping to increase knowledge on the subject in analysed (Bezzi, 2010).

Two questionnaires were submitted to a sample of 58 healthcare professionals[4] (nurses, doctors, administrative staff) belonging to different departments of Sandro

[3] Local healthcare company.
[4] 58 healthcare professionals of whom only 7 refused to participate in the investigation.

Pertini Hospital in Rome, as victims of verbal and/or physical assaults during 2009-2014. The first questionnaire aimed to identify the size and nature of the phenomenon of violence against health personnel, while the second questionnaire was used to investigate the presence or absence of stress on the same workers.

The questionnaire related to aggression included 30 items, allowing the healthcare provider possibly to select more than one response. It consisted of "close-ended" questions, guided by a list of pre-defined responses to which a numeric label was associated in order to be inserted into the data matrix. Then questions "semi-close-ended", giving the opportunity to indicate more specificity than available alternatives and "open-ended" questions, in which a list of responses was not prepared and the interviewee had to answer freely. This choice was made to obtain a good level of answers' comparability, without taking off the possibility for respondents to express their opinions freely, providing more space for expression and avoiding misunderstandings (Corbetta, 2014). Various variables were investigated including: socio-personal data; professional qualification; type of aggression; the most vulnerable places of violence, the frequency of the phenomenon; the characteristics of the episodes of violence and the consequences on the health and well-being of the interviewed healthcare workers.

The questionnaire concerning worker's perception of stress, on the other hand, consisted of 60 items using a Likert scale, where to the proposed statements, the interviewee must indicate to what extent he agrees (Corbetta, 2014). In this case, the available response alternatives are numeric from 1 to 7, where score 1 indicates "Entirely disagree", score 4 corresponds to "Somewhat agree" and 7 to "Entirely agree". This questionnaire explores several aspects that affect the personal satisfaction of healthcare professionals in relation to the work organization; the relationship with colleagues; the level of personal motivation and perception of their work's quality.

Data from both questionnaires were analysed using the Statistical Package for the Social Sciences (SPSS) software version 20.0.

Indeed, I decided to realize discursive interviews, or rather unstructured conversations with the interviewees. My goal was to describe more accurately the phenomenon of violence according to the perspective of the subject studied. The interviewees clarified and extended what they indicated in the standardized answers of the questionnaires through the free expression of their opinions on the topic (Silverman, 2002). The main limitation of this study was the small reference sample and the assumption that each health organization had different characteristics that might be affected by different variables. Therefore, the results of the survey cannot be generalized to the entire national healthcare population. By contrast, this survey can be a starting point for further research on a larger reference sample.

RESULTS OF THE INVESTIGATION AT SANDRO PERTINI HOSPITAL IN ROME

Originally, the research sample was formed of 58 health workers, among whom 58.8% were females. Of these, only seven victims of violence refused to participate in the investigation due to two main reasons: the fear of retaliation by the Corporate Management and participating in the study would not change the working conditions. So, the final research sample accounted for 51 healthcare workers.

Nurses (82.4%), doctors (9.08%) and the remaining by administrative staff (7.8%) composed the sample. They belonged to the emergency department (68.6%), the UOC[5] (15.7%), administration/front office (7.8%), 2% the UTIC[6] emergency area and the remaining 2% to the ambulance service. The 64.7% of the sample had seniority of 10 working years or more, 29.4% had seniority of 4 to 9 working years and the 5.9% less than or equal to 3 working years.

During work, 74.5% of healthcare personnel frequently (more than five times a year) witnessed verbal and/or physical assaults by patients and/or relatives, 23.5% sometimes (five times a year) and 2% rarely (once a year). None of the respondents had declared that they had never witnessed the phenomenon in question.

Indeed, 15.7% of the sample claim been often aggressed (more than five times a year) verbally and/or physically by colleagues, 19.6% sometimes (five times a year), 33.3% rarely (once a year) and 31.4% never. 74.5% of the healthcare operators indicated that they had been attacked by relatives and patients for the last five years, 11.8% from relatives and 13.7% from patients. In addition, the number of verbal attacks over this period was around 4485, physical aggressions, about 81 and verbal and physical assaults about 183. The qualitative analysis of the interviews confirmed these data: "Verbal aggression? Can I choose indefinite? "; "Aggression? Every day!"; "Every patient arriving will attack you verbally!".

70.6% of respondents said they were able to recognize the first signs of an aggression at least once, blocking the escalation of violence mainly through effective communication, remaining calm and showing themselves secure; through an empathic and polite behaviour, lowering the tone of voice, watching and listening to the aggressive person, as well as providing more information about the care they needed to accomplish. Also, the respondents said they were attacked in 78.4% of cases by a single aggressor, while the remaining 33.3% claimed to have been hit by more than one person at the same time. In addition, 70.6% of the sample had claimed to have been attacked by male, 33.3% by female, while 19.6% of respondents indicated that the aggressor was predominantly male and only 7.8% stated that it was predominantly female. Subsequently, 86.3% of the healthcare operators had identified the attacker as a relative, 88.2% as a patient, 7.8% as a colleague, 3.9% as an hospital guest and 2% as a supervisor.

According to respondents, in the case of violence by patients and/or relatives, the problems that characterize the aggressors were: being a patient's family member (56.9%); angry people due to too much wait (52.9%); people with addiction problems (41.2%); alcoholic people (33.3%); psychiatric patients (27.5%); foreign people and patients with chronic diseases (17.6%); people who make inadequate requests (11.8%) and with cultural and/or linguistic barriers (9.8%). Instead, the type of aggression received in 62.7% of the cases was verbal and physical, in 39.2% only verbal and in 2% only physical and sexual.

In the case of verbal aggression, the health personnel suffered from behaviour such as: insults (86.3%); lack of respect (76.5%); uncivil behaviour (68.6%); threats of physical aggression (58.8%); intimidations (52.9%); threats of complaint and criticisms (41.2%); threats of death (21.6%) and persecutions (3.9%).

[5] Complex Operation Unit
[6] Cardiac Intensive Therapy Unit

In the case of physical assault, violent actions affecting healthcare professionals accounted physical contacts without injurious consequences for 41.2% of the sample; 21.6% physical contacts with injurious consequences; 11.8% physical contacts with use of objects and the remaining 2% were aggressions with use of weapons.

In 78.4% of the cases, the place of aggression was an emergency department, followed by front-office (7.8%), surgery (5.9%), then in the department of emergency medicine and in the hospital psychiatric unit (3.9%) and finally in the geriatric and prison department (2%).

The most affected areas were the triage of first aid department (47.1%), corridors (43.1%), emergency department (37.3%), patient rooms (23.5%), waiting rooms (19.6%), outpatient clinics (9.8%), front office (7.8%), street outside the hospital (3.9%) and patient's home (2%). While, the most significant percentage of responses (41.2%) indicated the afternoon, from 17.30 to 20.30, and the morning, from 8.30 to 11.30 as usual times of aggression (29.04%). The rest of the answers were balanced, in fact aggressions occurred in a percentage of 25.5% for the time slot 20.30-23.30, 23.5% for 02.30-08.30, 21.6% for 11.30-14.30 and 23.30 to 02.30, 17.6% for 14.30-17.30. This data is also confirmed by discursive interviews where healthcare staff referred that probably the time slots most at risk of aggression was in the late afternoon for the long waiting times that patients and/or relatives frequently face and early in the morning[7], but interviewees report that at every hour there is a possible risk of aggression. In fact, the activities carried out at the time of aggression were usually the reception of the patient (43.1%), health care (39.2%), administration of therapy (27.5%), visit (25.5%) and administrative activities (9.8%).

The work environment factors contributing to the development of aggression were in 58.8% of cases the waiting time, then followed by the crowding of the department and the unrestricted access for visitors (35,3%), the setting of some areas such as emergency and psychiatric department (27,5%), the not corresponding of patients in regards to the organizational and structural quality of the hospital (27.5%), the lack of information on the providing of emergency department (25.5%), the location of structures in decaying areas (19.6%), hot weather (9.8%) and noisy environment (7.8%).

According to the respondents, organizational factors affecting aggressive events were: negative attitudes of patient and/or relatives to healthcare providers (74.5%); the lack of information to patient and/or relatives (41.2%); difficulties in communication between operators and patients (35.3%); difficulties in communication among the same operators (21.6%); the lack of collaboration among colleagues (15.7%); the shortage of available staff (13.7%) and finally the organizational shortage in the training of the healthcare operators (7.8%).

It emerged that the 66.7% of the healthcare personnel interviewee, did not react to the aggressions received. Only 33.3% responded verbally, trying to comfort the patient and/or relatives by providing more information about their clinical journey and explaining the reasons for choosing some procedures. Healthcare personnel responded physically, containing the aggressor, with the lowest percentage (3.9%).

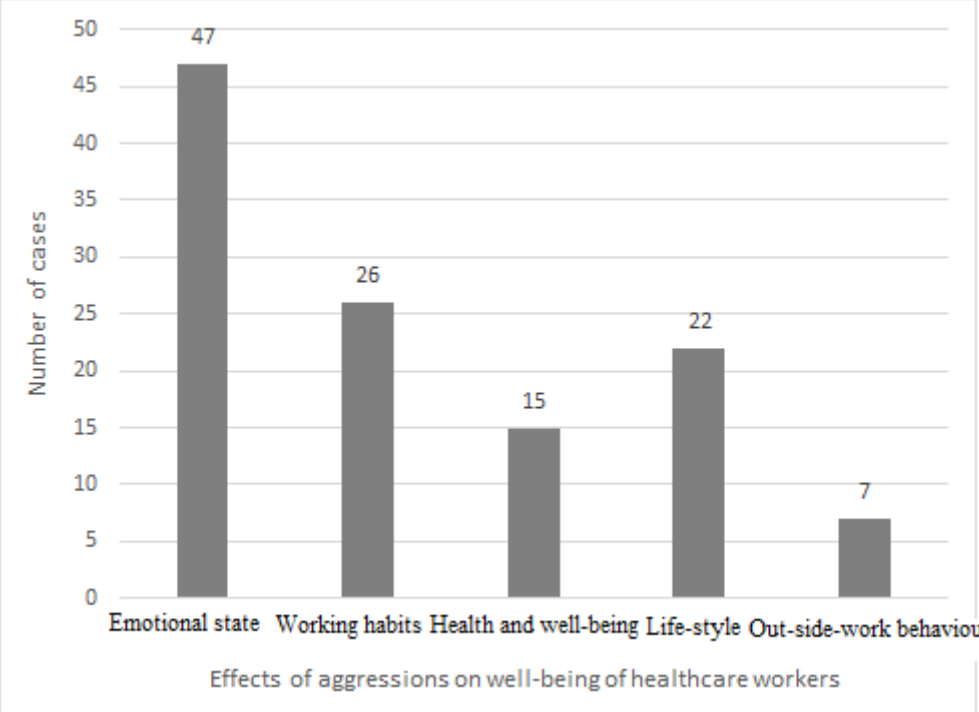
Then, 62.75% of the sample declares to have verbally reported the aggressive events on the same day or at most on the following day. Generally, they report the attacks to

[7] Morning rounds are usually long because it is the time when therapies are given and medical examination and patient's basic care are done.

their head nurse and to a lesser degree to Corporate Management and Risk Management, while 37.3% did not report aggressions, especially in case of verbal aggressions. Indeed, 64.7% of the healthcare personnel interviewees at the time of the assault asked immediate help from security personnel (56.9%), colleagues (41.2%) and police (25.5%), whereas 35.29% of the sample argued that it was not always necessary to do so, especially in the case of verbal aggression. For the same reason, after the assault 56.9% did not go to the first aid unit, while the remaining 43.1% who decided to go there did a self-medical report, except in the case of serious injuries. In fact, 29.4% of the interviewees referred that they needed care, generally suture points, X-ray examinations, analgesic treatments, various dressings due to physical trauma and psychophysical rest from work. On the other hand, 70.6 % declared that they did not need the care. In total, only 27.45% claimed to have reported violence to police, particularly in the case of medium/high-gravity physical injuries, while 72.55% did not consider it a necessary practice. The main reasons were that the complaint requires excessive time to be processed and does not bring any benefit. Other factors were: the fear of operators from management retaliation; the desire to silence the situation; the profile of the aggressor (poor, psychiatric or foreign patient) and the nature of aggression (usually verbal). Finally, healthcare personnel did not usually complain about patient aggressions to police because did not want to create problems to the aggressor, especially if he was ready to apologize.

The worrying data was that 90.2% out of 51 healthcare workers claimed to have suffered from aggression and only 9.8% referred the opposite.

Fig. 1 − Effects of aggressions on well-being of 51 healthcare personnel of Sandro Pertini Hospital victims of violence.



In absolute values (Fig. 1), 47 suffering victims claimed to have had an impact on their emotional state, especially: anger (60.8%); sense of helplessness (52.9%); irritation (43.1%), humiliation (37.3%) and fear (27.5%). Before, 26 healthcare workers responded to have had consequences on their working habits: demotivation (33.3%), resentment towards colleagues (7.8%), reduced quality of work and desire to request a transfer (5.9%), and absenteeism (2%). Then, 15 claimed to have had an impact on their own health and well-being, indicating: decrease in psychic well-being (39.3%) and decrease in physical well-being (11.8%). In addition, 22 respondents have had an impact on their lifestyle, they especially reported sleeping problems (23.5%) and in lower percentage had consequences on feeding habits (5.9%), sexual activity (3.9%) and smoking cigarettes (2%). Instead, there had no gambling problems or alcohol abuse. At a lower measure, 7 healthcare workers had consequences on out-of-work behaviours, detecting a loss of interest and relational problems with their relatives (5.9%), a decrease in spending hours in extracurricular activities (3.9%), driving problems (2%) and, finally, they did not report any form of social isolation[8].

Instead, in the analysis of the worker's stress questionnaire, constructed on a Likert scale 1 to 7, to determine the occurrence of this phenomenon and the presence or absence of the individual aspects that contribute to stress, the *cut-off* threshold was set at 3, 6. In addition, the average value and the relative standard deviation were indicated in order to detect the random displacement measurement. The investigated individual aspects exceeding the set *cut-off* threshold can be observed in the following table:

Tab. 1 − Average and Standard Deviation of indicators regarding the stress condition of 51 healthcare personnel of Sandro Pertini Hospital exceeding the *cut-off* threshold.

Dimensions of stress − Sandro Pertini Hospital (n=51)		**Av.**	**S. D.**
1.	Continuous engagement during daily working time.	6.24	1.142
2.	The weight of work responsibilities.	4.31	1.816
3.	The discomfort of not being able to complete their job.	4.65	1.906
4.	The discomfort of interrupting work caused by external factors.	5.35	1.787
5.	The demand for excessive labour liability.	4.61	1.779
6.	Excessive working times.	4.08	1.647
7.	The level of accuracy of job information.	4.31	1.463
8.	The patient evaluation of healthcare personnel's work.	4.80	1.855
9.	Negative patient comments on healthcare personnel's work.	4.04	2.068
10.	The concerns of healthcare staff from the patient's complaints.	3.88	1.492
11.	The alarm for risky working conditions.	4.06	1.848
12.	The adequacy of remuneration compared to job demands.	5.61	1.888

[8] Possible multiple answers.

DISCUSSION

According to international and national research, verbal and/or physical violence is a phenomenon that occurs regularly during the working hours of healthcare personnel, especially for those who work in emergency departments.

In most cases, aggressors were usually male patients and family members who act on their own with issues that concerned anger generated by too much waiting; drug addiction; alcoholism; psychiatric and chronic diseases; expectations not in line with the services offered; inadequate requests and cultural and/or linguistic barriers. Then, the most affected areas were emergency rooms, corridors, patient rooms and waiting rooms, mainly due to environmental and organizational factors.

The environmental factors that have been identified as possible cause of the violence were long waiting times; the crowding of the department; unrestricted access to visitors; the setting of some areas such as emergency and psychiatric units and the not corresponding of organizational and structural quality to patient expectations. While the organizational factors most involved in the phenomenon of aggression against healthcare operators were: negative attitudes of patients and/or relatives to healthcare personnel; lack of information to patients; difficulties in communication between operators and patients; difficulties in communication among the same operators; the lack of collaboration among colleagues; the lack of available staff and finally the organizational shortage in the training of the healthcare operators.

Usually, verbal aggression happened several times daily and physical aggressions usually did not lead to injurious consequences, but the significant data was that almost all respondents have had important consequences on their emotional state (90.2%), such as feeling angry, helpless, irritated, humiliated and scared.

There were also significant effects on the working habits of healthcare personnel (43.1%), particularly in terms of motivation to work. In addition, there were health and well-being issues (37.3%) that was related in particular to the decrease in psychic well-being and, to a lesser extent, to the decrease in physical well-being. Even the lifestyle of the operators (29.4%) was affected, mostly experiencing sleeping problems. Although at a lower percentage, even out-of-work behaviours (13.7%) were affected by violence, especially by causing loss of interest and relational problems with their families.

Despite the awareness on these issues, more than 70% of healthcare operators did not denounce their aggressor, because they did not believe in effectiveness and efficiency of this procedure and also, because they did not feel supported and protected by their organization. Indeed, as shown by the interviews, operators expressed a strong sense of frustration and abandonment by the organization, thus they even suffered from a strong secondary victimization process. The excessive bureaucracy and the almost total indifference of which organization appeared to be interested in the phenomenon of violence only at a formal level and did not intervene in a concrete way caused this process.

Accordingly, the results of the worker's stress questionnaire showed that the most disorienting factors was strictly organizational. Indeed, the dimensions most affecting the stress of healthcare personnel interviewees are: the excessive level of the given work responsibility; the concern about danger working conditions; the excessive working time; the lack of information provided to do the work; the disproportionate remuneration for the tasks performed and the negative consideration by the patients.

The stress dimension did not allow the healthcare personnel to effectively carry out their work and strongly compromise the use of an effective communication with potentially aggressive patients and/or relatives, but also difficulties in communication and collaboration among the same colleagues.

Finally, after a descriptive statistical analysis of the phenomenon, I applied the Pearson Chi-Square test on the indicators of stress that I considered associated of the number of verbal and verbal/physical aggression suffered by healthcare personnel of Sandro Pertini Hospital. The indicators of stress that I consider associated of the number of aggressions were the alarm of risky working conditions, the level of accuracy of job information and the excessive working times. We can look at the results in the following tables.

Tab. 2 – Contingency table of verbal aggression based on the indicators of stress regarding the alarm for risky working conditions of 51 healthcare personnel of Sandro Pertini Hospital and test of independence.

		Verbal aggression	
		Yes	No
The alarm for risky working conditions	Entirely disagree	8	10
	Somewhat agree	8	10
	Entirely agree	4	11
Total		20	31
Pearson Chi-Square		Value	p-value
		1.404*	.496

*0 cells (0%) have expected count less than 5. The minimum expected count is 5.88.

Tab. 3 − Contingency table of verbal and physical aggression based on the indicators of stress regarding the alarm for risky working conditions of 51 healthcare personnel of Sandro Pertini Hospital and test of independence.

		Verbal and physical aggression	
		Yes	No
The alarm for risky working conditions	Entirely disagree	10	8
	Somewhat agree	10	8
	Entirely agree	12	3
Total		32	19
Pearson Chi-Square		Value	p-value
		2.707*	.258

*0 cells (0%) have expected count less than 5. The minimum expected count is 5.59.

Tab. 4 − Contingency table of verbal aggression based on the indicators of stress regarding the level of accuracy of job information of 51 healthcare personnel of Sandro Pertini Hospital and test of independence.

		Verbal aggression	
		Yes	No
The level of accuracy of job information	Entirely disagree	5	16
	Somewhat agree	8	10
	Entirely agree	7	5
Total		20	31
Pearson Chi-Square		Value	p-value
		4.137*	.126

*1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.71.

Tab. 5 − Contingency table of verbal and physical aggression based on the indicators of stress regarding the level of accuracy of job information of 51 healthcare personnel of Sandro Pertini Hospital and test of independence.

		Verbal and physical aggression	
		Yes	No
The level of accuracy of job information	Entirely disagree	16	5
	Somewhat agree	11	7
	Entirely agree	5	7
Total		32	19
Pearson Chi-Square		Value	p-value
		3.925*	.140

*1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.47.

Tab. 6 − Contingency table of verbal aggression based on the indicators of stress regarding the excessive working times of 51 healthcare personnel of Sandro Pertini Hospital and test of independence.

		Verbal aggression	
		Yes	No
Excessive working times	Entirely disagree	7	8
	Somewhat agree	7	13
	Entirely agree	6	10
Total		20	31
Pearson Chi-Square		Value	p-value
		.518*	.772

*0 cells (0%) have expected count less than 5. The minimum expected count is 5.88.

Tab. 7 − Contingency table of verbal and physical aggression based on the indicators of stress regarding the excessive working times of 51 healthcare personnel of Sandro Pertini Hospital and test of independence.

		Verbal and physical aggression	
		Yes	No
Excessive working times	Entirely disagree	9	6
	Somewhat agree	13	7
	Entirely agree	10	6
Total		32	19
Pearson Chi-Square		Value	p-value
		0.92*	.955

*0 cells (0%) have expected count less than 5. The minimum expected count is 5.59.

The Pearson Chi-Square test on the indicators of stress that I considered associated of the number of verbal and verbal/physical aggression suffered by healthcare personnel of Sandro Pertini Hospital showed that there was not an association of the phenomenon.

FINAL CONSIDERATIONS AND FURTHER DEVELOPMENTS

The analysis of data showed that verbal and/or physical violence by patients and/or family members is regularly manifested in the professional activity of the healthcare personnel of Sandro Pertini Hospital in Rome, particularly in the Emergency Department. In fact, the descriptive statistical analysis showed that this phenomenon has important consequences on health and well-being of the health workers in the studied sample (90.2%).

Afterward, the Pearson Chi-Square test on the indicators of stress that I considered associated of the number of verbal and verbal/physical aggression suffered by healthcare personnel of Sandro Pertini Hospital showed that there was not an association of the phenomenon. Anyhow, this study can be a starting point for further developments on the topic, taking into consideration a larger reference sample.

Indeed, in order to reduce and/or eliminate the phenomenon of violence against healthcare staff and improving their safety and health, as recommended by health international institutes and trade unions, it is necessary to increase the studies on the phenomenon to further deepen risk factors and to identify forms of prevention and early intervention in the sake of the victims.

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