

# Violence against health care staff by patient's visitor in general hospital in Greece: Possible causes and economic crisis

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## ABSTRACT

**This study examined the types of violence experienced by physicians, nurses and nurse assistants in various departments by patients' visitors. Few studies have focused on patients' visitors' violence against nurses or physicians in general hospitals and various departments in the beginning of economic crisis in Greece. A total of 250 health care staff—physicians, nurses, nurses' assistants—took part in a questionnaire-based study. A majority of respondents had experienced some forms of violence (verbal, psychological, physical and sexual). The most frequently reported incident was verbal violence followed by psychological violence. Violation of visiting hours and long waiting periods were among the most common causes of violence. Associations were found between workplace violence and demographics and types of wards. Nurses identified economic crisis to be the major cause of violence. The most significant finding is the high rate of workplace violence caused by patients' visitors due to economic crisis and the fact that we found no statistically significant differences in the prevalence of violence among different health professionals.**

**Keywords:** Workplace Violence; Health Care Professionals; Visitor

## 1. INTRODUCTION

Health care staff are the most risky professionals to violence in the workplace [1]. In recent years researchers had focused on workplace violence directed especially at nurses [2-6]. Most studies have examined violence against nurses by patients especially in psychiatric and

emergency settings [7-9].

Few studies have systematically explored violence against nurses and physicians by patients' visitors in general settings [10,11]. Most of the studies had emphasized on patient violent acts against health care staff [12-16].

A review of the literature illustrates that aggressive and violent behavior is caused mainly by patients and visitors [15,17-20]. Previous studies have shown that incidents of violence are experienced by nurses influence job satisfaction, job performance and quality of patients' care; moreover it causes psychological harm to victims [21-25]. In addition, a number of studies had illustrated the psychological and emotional impact of violence especially on nurses [26,27].

Greece, since June 2011, has been facing a major economic crisis due to large debt and begins to implement austerity measures. Since then a few studies mainly focusing on mental health issues, have tried to identify the impact of this crisis. To our knowledge, there is no study, which examines the effect of economic crisis in the frequency of violent episodes' incidence in Greek hospitals.

Additionally in Greek health care system, staff shortage impedes the continuing presence of patient's visitors—usually a family member—in all nursing and medical procedures. In many cases, performing these procedures depends on aid provided by the patient's relatives. Patient care depends on relatives and as a result relatives may become anxious, angry and frustrated, which as a consequence could possibly lead to violent acts towards staff.

## 2. AIM OF THIS STUDY

The aims of the study were to:

- 1) Examine the types of violence experienced by physicians and nurses in various departments by patients' visitors;
- 2) Identify the possible causes;

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3) Determine the association of economic crisis and violent episodes.

### 3. MATERIALS AND METHODS

#### 3.1. Study Design

The study was conducted in seven general hospitals in Athens, Greece, greater area. The hospitals provide services for patients from rural, semi-urban and urban backgrounds as well as for patients from ethnic minorities.

Ethical approval to conduct this research study was obtained from the hospital ethics committees. Questionnaires were returned confidentially directly to one of the authors. Assurances were given to nurses and physicians on duty concerning confidentiality and anonymity. Participation in the research was contingent on individual verbal consent.

An anonymous self-administered questionnaire was constructed by the Demographic Laboratory in The Faculty of Nursing, University of Athens. A modified version of this instrument has already been used in another study conducted by the same scientific group concerning violence amongst health care staff. The questionnaire pre-tested ten nurse and five doctors who were not included in the final study. Content validity was examined by two experts, one associate professor on Health Economics and one assistant professor in psychiatric nursing. Content validity index was 0.91. Cronbach alpha coefficient was 0.79. The data were collected between October and December 2011.

#### 3.2. Instrument

In the first part of the questionnaire we included:

- The participants' demographic characteristics and
- Information about definition of violence (verbal, psychological, physical and sexual violence).

The second part comprised three parts including:

1) Types of violence—psychological, verbal, physical, sexual—according to different shifts (morning-evening-night shift).

The respondents were requested to answer whether he or she had experienced violence (“yes” or “no”) during their career in the same department by a visitor.

2) Perceived causes of violence.

3) An empty box at the end of the pages in order for the health care staff to feedback with any additional information and provide an answer to the following question: “Have you noticed an increase in the frequency of the violent episodes since the onset of the economic crisis?”

#### 3.3. Data Collection

The researcher informed the head nurse and the head

doctor of each ward on the purpose of the study and the nurse in charge informed the nursing staff. Questionnaires were distributed to all nurses and physicians over 3 months period.

Written approval was obtained by the hospitals' ethical committees. Participation in the research was contingent on individual verbal consent. Assurances were given to nurses on duty, concerning confidentiality and anonymity.

The sample consisted of 320 health care staff, medical specialists, resident doctors, registered nurses, assistant nurses who worked full-time—three rotating shifts—in seven types of wards in seven general hospitals. The final sample was 250 health care staff. The staff was randomly selected from morning and evening shift all health care staff was in regular contact with patients.

#### 3.4. Data Analysis

We used a descriptive analysis to identify violence characteristics. A logistic regression analysis was used in order to identify factors that may predict a certain type of violence. The following independent variables (victims' characteristics) were chosen: gender, age, height and weight, marital status, years of work and hospital department. Data was analyzed by Statistical Package for Social Sciences (SPSS, version 13). Content analysis was applied on health care staff comments and the data was coded in order to identify a variety of themes.

## 4. RESULTS

#### 4.1. Respondents' Characteristics

Questionnaires were distributed to 320 health care staff, 250 of who responded. This represents a 78% response rate. The mean age of the respondents was 36.3 (SD = 5.2). Sixty six (26.4%) were male and 184 (73.6%) were female. The mean years of work in a generalists' hospital setting were  $11.7 \pm 5.2$  years. Thirty six (14.4%) were medical specialists, 54 (21.6%) were resident doctors, 132 (52.8%) were registered as nurses and 28 (11.2%) were nurse assistants. The demographic characteristics of the sample are presented in **Table 1**.

#### 4.2. Prevalence of Violence

Two hundred two (80.8%) health care staff experienced verbal violence by visitor in the morning shift, 192 (76.8%) in the evening shift, 114 (45.6%) in the night shift, followed by psychological violence 192 (76.8%), 184 (73.6%) and 102 (40.8%) respectively.

The results showed violent events were not time-dependent (**Table 2**).

#### 4.3. Perceived Causes of Violence

Nurses and doctors identified nine (9) perceived causes

of violence by visitors. The most frequent causes of violent acts by the visitor were: violation of visiting hours (88.8%), long waiting periods (86.4%), psychological problems like anger and anxiety (83.2%) and smoking prohibition (82.4%) (**Table 3**).

**Table 1.** Demographic characteristics (N = 250).

Characteristics	N (%)
<b>Sex</b>	
Males	66 (26.4)
Females	184 (73.6)
<b>Age</b>	
	X = 36.3 ± 5.2
<b>Years of work</b>	
	X = 11.7 ± 5.2
<b>Position</b>	
Medical specialist	36 (14.4)
Resident doctor	54 (21.6)
Registered nurse	132 (52.8)
Nurse assistant	28 (11.2)
<b>Type of ward</b>	
Internal medicine	62 (24.8)
Surgical	44 (17.6)
Anesthesiology	12 (4.8)
Cardiology	28 (11.2)
Emergency	30 (12.0)
ICU	54 (21.6)
Orthopedics	20 (8.0)

**Table 2.** Prevalence of violence by visitor according to different shifts (N = 250).

Violence type	7 - 3 N (%)	3 - 11 N (%)	11 - 7 N (%)
<b>Psychological</b>	192 (76.8)	184 (73.6)	102 (40.8)
<b>Verbal</b>	202 (80.8)	192 (76.8)	114 (45.6)
<b>Use of force</b>	64 (25.6)	70 (28.0)	54 (21.6)
<b>Physical</b>	70 (28.0)	60 (24.0)	54 (21.6)
<b>Sexual</b>	64 (25.6)	62 (24.8)	34 (13.6)

**Table 3.** Perceived causes of violence.

Perceived causes of violence	N (%)
Violation of visiting hours	222 (88.8)
Long waiting periods	216 (86.4)
Psychological problems (anger, anxiety)	208 (83.2)
Smoking prohibition	206 (82.4)
Denial of patient's admission in the hospital	168 (67.2)
Delays in nursing care provision	164 (65.6)
Delays in medical care provision	150 (60.0)
Denial of patient's dismissal	122 (48.8)
Patients' dissatisfaction with nursing/medical care	80 (32.0)

#### 4.4. Logistic Regression Analysis (Table 4)

Logistic regression analysis showed that in cases where the visitor was the perpetrator, health care staff in younger age had increased odds of experiencing psychological violence ( $p < 0.003$ ).

Victims with lower height had also increased odds of experiencing physical ( $p < 0.000$ ) and sexual violence ( $p < 0.000$ ) respectively.

Years of work were found to predict verbal violence. Those with fewer years of work had a greater risk of experiencing verbal violence ( $p < 0.017$ ).

Working in Internal medicine increased the risk of experiencing psychological ( $p < 0.000$ ), verbal ( $p < 0.000$ ), physical ( $p < 0.000$ ) and sexual violence ( $p < 0.013$ ).

Working in surgical and anesthesiology increased the risk of psychological violence ( $p < 0.000$ ,  $p < 0.000$ ) and verbal violence ( $p < 0.000$ ,  $p < 0.000$ ) respectively.

Those who worked in emergency had increased odds of experiencing sexual violence ( $p < 0.033$ ).

#### 4.5. Content Analysis of Open-Ended Question

The total of sample answered "yes" to the question concerning the impact of economic crisis. They all agreed that during the last months they have noticed an increase in violent episodes' incidence.

One hundred fifty (60%) nurses and physicians has chosen to make a comment concerning violent incidents. The main issues raised from nurses and physicians' quotes were:

1) Economic crisis has been identified as the major cause of an increase in the frequency of violent incidents, in public hospitals. Both health care staff and visitors are more stressed and have lowered ability to manage a crisis.

Health care staff admitted that in many cases they have no courage to confront an angry and frustrated patient and his/her visitor. On the other hand the visitor is more demanding, in fear that the patient will not receive the adequate care. Staff shortage, reduction on salary and lack of medical supplies were some of the causes mentioned by the staff.

2) No training in violence de-escalation strategies and prevention management. Health care staff reported that they lack the knowledge and the skills to handle with violent visitors. More training would make them more confident and equipped to deal with this particularly stressed group.

3) Personnel shortage—Effect on quality of patient care. Lack of staff combined with lack of time impairs quality of patient care and communication with patient relatives. In addition patient care in Greek hospital system depends on relatives presence in the hospital

**Table 4.** Logistic regression analysis results: patient's visitor as the perpetrator.

Independent variable	B	Odds Ratios	95% C.I for OR		p value	Dependent variable
			Lower	Upper		
Age	-0.100	0.905	0.848	0.966	0.003	Psychological violence
Internal medicine	1.770	5.872	2.833	12.169	0.000	Psychological violence
Surgical	-1.957	0.141	0.067	0.298	0.000	Psychological violence
Anesthesiology	-2.525	0.080	0.022	0.291	0.000	Psychological violence
Years of work	-0.073	0.930	0.876	0.987	0.017	Verbal violence
Internal medicine	1.727	5.623	2.766	11.432	0.000	Verbal violence
Surgical	-1.549	0.224	0.105	0.478	0.000	Verbal violence
Anesthesiology	-1.731	0.026	0.005	0.124	0.000	Verbal violence
Height	-0.088	0.916	0.877	0.956	0.000	Physical violence
Years of work	-0.139	0.870	0.817	0.926	0.000	Physical violence
Internal medicine	1.162	5.119	2.534	10.342	0.000	Physical violence
Height	-0.159	0.853	0.791	0.920	0.000	Sexual violence
Internal medicine	1.147	3.148	1.698	5.838	0.013	Sexual violence
Emergency	-1.791	0.167	0.032	0.864	0.033	Sexual violence

especially in the night shift. This interaction may cause tension and misunderstandings for both parts. Nurses especially accused relatives of wasting staff time by unreasonable demands.

4) Low reporting of violence and management inadequacy to handle incidents. Most of the respondents—especially nurses—noted that nursing or medical administration would never come to their aid even if they had reported the incident. In addition lack of policies and security rules maximizes consequences of workplace violence.

## 5. DISCUSSION

This study tried to separate the types of violence (verbal, psychological, physical, sexual) caused by patient's visitors and to determine the risk factors associated with workplace violence. In Greek health care system, visitors are mainly patient relatives. To interpret the results, it has to be noticed that in Greek health care system patient's relative play a key role in patient care. Patients' relative monitors symptoms and signs, participates in the patient's self care, stays near the patient overnight and sometimes performs nursing practices. This phenomenon is a direct consequence of a significant lack in health care staff. The effective delivery of care in most of the cases is based on relatives.

The most significant finding is the high rate of workplace violence caused by patients' visitors due to economic crisis in Greece. The overwhelming majority of nurses and physicians participating in this research reported facing all types of violent behavior in the workplace. The results also show that physicians and nurses,

almost equally, are at a serious risk in the general health care environment, even though a previous study has shown that nurses were more likely to experience violent incidents than physicians [11,16].

A possible explanation could be that in Greece, lack of policies and assertive legislation, has placed health care staff at frequent risk for workplace violence [28]. In addition to that, another reason may be that in Greece the shortage of health care staff is combined with a large workload. The fact that visitor violence appears to be influenced by the type of interaction and situation, has been shown in previous study [10].

*Psychological and verbal violence* was extremely high (76.8% and 80.8% in the morning shift, 73.6% and 76.8% in the evening shift and 40.8% and 45.6% in the night shift respectively) a finding compatible with the ones reported from other investigators [12,29,30]. A significant proportion reported incidents of *sexual violence* a finding also evident in other studies [25,31].

Precipitating factors included violation of visiting hours by the visitor (88.8%), long waiting periods (86.4%), visitors' psychological problems (83.2%), and smoking prohibition in the waiting areas (82.4%).

Additionally, other causes included denial of patient's admission in the hospital, delays in medical and nursing care provision, denial of patient's dismissal and patient's dissatisfaction with nursing/medical care, a similar finding with previous studies [12].

Younger staff had increased odds of experiencing psychological violence [2,32]. These results suggest that there is a clear need for junior staff protection and training in dealing with violence. Personal characteristics like height and weight seemed to predict the risk of experi-



encing violence. Those with lower height had increased odds of experiencing physical and sexual violence. Combined with the fact that in most cases women have lower somatic characteristics, they may be found in a 'more at risk for violence' situation [20,33].

Our results showed that working in the internal medicine, surgical and anesthesiology, increased the risk of experiencing violence. Working in emergency increased the risk of experiencing sexual violence. These results are consistent with previous studies [6,9,25,34]. In Greece, lack of nursing and medical staff, difficult shifts and intensity of the work required, may increase the tension when working in these wards. In addition, visitors may be frustrated and impatient regarding patient progress. Combined with the fact that they participate in patient care in many ways, interactions with staff may turn to be problematic even violent.

#### *Issues raised by nurses and physicians*

Shortage of staff was the most common issue raised by nurses. Combined with a large workload, it was the main reason for interrelationship tension, unmet patients' and relatives' demands and violent episodes [11].

In our study victims were unlike to report the incidents [35]. They tended to keep the problem for themselves or share the experience with a colleague, a similar finding with previous studies [17,18].

It is of note that Greek health care staff has no training in violence de-escalation strategies. Additionally, for many of them, seeking support from colleagues seems to be their only solution [34,36].

Most of the respondents—especially nurses—noted that nursing or medical administration would never come to their aid even if they had reported the incident or expressed fear for consequences from management [11,13]. Organizational issues included lack of security policies and measures to protect staff. Nurses and physicians proposed hospital management implementation strategies to prevent and manage violent acts and support staff after the violent incident.

Greek economic crisis seems to have an impact on various health care sectors. It is of note that the total sample believed that there was an increase in violent incidents since the onset of the crisis. As shown in previous study concerning the impact of financial crisis on the Greek health care system, the reduction on hospital budgets and salaries, the staff shortage, the lack of medical supplies and medication in public sector all have a detrimental effect in health care [37].

The serious impact of violence at work is becoming a topical subject in various health care systems. It is generally accepted that studies must focus on prevention programs and safety measures in order for health care staff to feel less vulnerable in the health care sector [38,39]. In Greece especially, there is a growing need for

systematic evaluation of care provision under the current economic situation.

## 6. CONCLUSION

Violence against health care staff provoked by patient visitor is an underestimated phenomenon in Greek hospitals. In Greece, patients' relatives play a key role in patients' care due to a lack of health care staff. This study provides evidence of the problem and highlights the main participating factors. Working in a safe environment should be a priority [39,40]. The implementation of strategies and preventive measures seems imperative for health care staff to feel secure and confident in health care environment [41]. Future research has to investigate in depth of the phenomenon and illustrate possible safety measures and strategies under the current economic deprivation. Researchers in the future, should focus on possible negative changes concerning care provision in the public sector, due to the economic crisis.

## 7. LIMITATIONS

This study represents an initial attempt to identify the problem of violence in health care and to recognize a possible effect of economic crisis amongst other reasons. Further research is needed to determine the factors associated with violence increase and to identify any possible changes, two years (2011-2013) after the beginning of economic crisis in Greece.

Ethical approval was obtained by the ethical committee of general hospital "George Gennimatas" (registration No 17774).

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