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Experience of workplace violence during medical speciality training in Turkey

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Aims To determine the type, extent and effects of workplace violence among residents during postgraduate speciality training in various departments of medical schools in Turkey.

Methods A cross-sectional survey was conducted in seven medical schools representing all geographical regions of Turkey. All physicians in speciality training in the selected medical schools were asked to complete a semi-structured 'violence questionnaire' addressing the type (emotional, physical and sexual) and extent of violence experienced, the perpetrators of the violence and the victim's reactions to the experience.

Results A total of 1712 residents out of 2442 completed the questionnaire. In all, 68% indicated they had experienced some form of workplace violence, 67% had experienced verbal violence, 16% had experienced physical violence and 3% had experienced sexual violence. The victims' most prevalent reactions to violence included being deeply disturbed but feeling they had to cope with it for the sake of their career (39%), being distressed (26%) but considering that such events are common in all occupations and discounting it and being confused and bewildered and unsure how to respond (19%). The most frequently named perpetrators of verbal violence were relatives/friends of patients (36%) and academic staff (36%), followed by other residents/senior residents (21%), patients (20%), heads of department (13%) and non-medical hospital staff (6%).

Conclusions Physicians in speciality training in medical schools in Turkey are subject to significant verbal, physical or sexual violence. Precautions to prevent such exposure are urgently needed.

Key words Health care workers; occupation; workplace violence.

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Introduction

Violence in the workplace has emerged as an important and prevalent problem of modern society, with serious health, safety and legal consequences. Although the severity of this problem did not become widely recognized until the 1980s, it appears to be a growing problem which has become a major issue in occupations in public and private employment sectors throughout the world.

Although there are many definitions for workplace violence, a definition used by the European Commission which has also been adapted by ILO/ICN/WHO/PSI defines workplace violence as 'Incidents where staff are explicitly or implicitly abused, threatened or assaulted in circumstances related to their work, including commuting to and from work' [1]. This broad definition includes physical, verbal and psychological violence and sexual harassment, encompassing any workplace behaviour capable of causing injury, damaging property, impeding the

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normal course of work or making workers, managers and customers fear for their safety [1,2].

Violence in the workplace is common in every occupation. In a report released in 2001, Duhart stated that in each year between 1993 and 1999, US residents suffered an annual average of 1.7 million incidents of non-fatal acts of workplace violence, including simple or aggravated assault, robbery and rape or sexual assault [3]. The health sector, among others, ranks among the highest with regard to non-fatal workplace assaults. Of the non-fatal injuries due to violence to workers in the USA in 2000, 48% were in the health sector [2]. Existing research and reports on workplace violence in the health sector indicates that ~25% of all violent incidents at work occur in the health sector and that >50% of health care workers have experienced violent incidents in their workplace [4–6].

Workplace violence can be internal to the workplace, or external, i.e. perpetrated by a patient, client, customer or visitor. Hierarchies of violence, based mainly on occupation and seniority, exist in every occupation including health care providers. The literature reports high rates of victimization of nurses [7,8] and physicians in speciality training may be another vulnerable group of health sector personnel.

Postgraduate speciality training programmes in Turkey take place immediately after graduation in medicine. Graduate physicians can either work as GPs or take a central exam called TUS (Medical Specialization Examination), which takes place twice yearly, thereafter beginning their residency training in medical schools with hospitals and tertiary-level state hospitals. The residency period varies according to speciality and ranges from 3 to 6 years. The title of specialist is granted after a certification exam held in training institutions and approved by the Ministry of Health.

To the best of our knowledge, there is no previous study investigating the occurrence of workplace violence perpetrated against physicians in speciality training in Turkey by patients, relatives/friends of patients, other hospital or academic staff or others.

The goals of the current study were to establish baseline data about the experience of workplace violence among physicians in speciality training and their perceptions of the violence experienced. We hope thereby to heighten awareness of such violence, leading to the development of a multidisciplinary coordinated response, including establishing appropriate policies and procedures, facilitating training and education programmes and providing training institution-based support services for victims. We therefore invited physicians in residency programmes in different divisions/departments of seven selected medical schools in different geographical regions of Turkey to complete a survey asking about the nature and extent of verbal/emotional, physical and sexual violence experienced during their speciality training.

Methods

The University of Firat Institutional Ethics Committee gave ethical approval for this study. The cover of the questionnaire gave brief information about the purpose of the study and included a statement assuring responders of the confidentiality and anonymity of their responses, and informed consent to participate was thereby sought.

Turkey is generally divided into seven geographical regions, these being Black Sea, Marmara, Aegean, Mediterranean, Central Anatolia and the East and Southeast Anatolia regions. The survey was conducted in seven medical schools randomly selected from those in each geographical region in order to give a cross-section of physicians in speciality training in different departments of medical schools across Turkey.

Self-administered questionnaires were sent to all physicians in speciality training in the selected seven medical schools and they were invited to participate by returning the completed form in a sealed envelope.

The different types of violence addressed by the questionnaire were clearly defined in order to standardize each respondent's interpretation of what constitutes 'violence'. Some questions relating to the experience of violence were yes/no questions, while others relating to the circumstances and perpetrators of the violence were multiple choice questions. The questionnaire included items about general demographics (age, sex, marital status, time spent in the occupation and that spent in residency and speciality, etc.) of physicians and the types of violence experienced, specifically:

> Have you ever been a victim of physical violence (such as hitting, pushing, shoving, kicking, touching and assault) in the workplace during your specialty training?
>
> Have you ever been a victim of verbal/emotional violence (such as threats, harassment, abuse or intimidation) in the workplace during your specialty training?
>
> Have you ever been the victim of sexual violence [(sexual violence without physical contact (making advances, allusions or remarks with sexual connotations, etc.) and with physical contact (deliberate physical contact, groping, brushing up against you, etc.)] in the workplace during your specialty training?

If a physician checked the 'yes' box for any of the above questions, they were also requested to place a check mark next to a checklist of perpetrators (head of department, other academic staff, other residents/senior residents, non-medical hospital staff, patients, relatives/friends of patients) and the respondent was asked to indicate the number of violent acts experienced during their speciality training, as well as their perception of and reaction to the events (possible responses to this item are listed in Table 4). The location and timing of the violence was also assessed.

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The data were entered on the SPSS version 10.0 for statistical analysis and this program was used for error controls. Analyses involved basic descriptive statistics on the sample and the estimation of the rates of reported events. Chi-square test, *t*-test and Mann–Whitney *U* test were used for statistical analyses. Regression analysis of violence for the time and places of where the violence took place was also performed. Data are expressed as means ± standard deviations.

Results

A total of 1712 out of 2442 physicians responded to the survey; the overall response rate was therefore 70% (Table 1).

Of respondents, 57% were males and 43% were females; 50% were single. The mean age was 28.6 ± 3.3 (minimum 22.0, maximum 48.0). The distribution of the physicians was as follows: 13% in the Division of Basic Medical Sciences, 50% in the Division of Internal Medicine and 37% in the Division of Surgical Sciences. The mean duration of working as a physician was 50.1 ± 37.7 (1–300) months and the mean duration of time spent in speciality training was 27.2 ± 17.0 (1–72) months.

Of the respondents, 60% (1027) replied yes to the question 'Do you worry about being a victim of workplace violence during your speciality training?', of which 33% marked physical violence, 65% verbal violence and 2% sexual violence in response to 'Which types of violence do you most worry about?'

In all, 68% (1159) of physicians participating in the study indicated having been subject to some kind of violence: 67% (1142) to verbal violence, 16% (272) to physical violence and 3% (53) to sexual violence. Of those exposed to physical violence, 1% (16) suffered injuries.

Table 1. Geographical distribution of the sample population

Medical schools sampled according to regions	Population class		Response rate (%)
	Total number of residents in speciality training at the time of study	Total number of residents who responded	
Black Sea region	368	293	80
Mediterranean region	225	166	74
Aegean region	220	174	79
Marmara region	528	319	60
Central Anatolia region	491	327	67
East Anatolia region	289	231	80
Southeast Anatolia region	341	202	59
Total for Turkey	2442	1712	70

The mean reported frequency of physicians being exposed to physical violence was 0.4 ± 1.8 (minimum 0, maximum 40) times, verbal violence 5.7 ± 13.1 (minimum 0, maximum 180) times and sexual violence 6.5 ± 0.5 (minimum 0, maximum 7) times. Male physicians reported exposure to physical violence more frequently than females (172 versus 100, male versus female, $P < 0.05$), and female doctors reported being victims of sexual violence more frequently than males (17 versus 36, male versus female, $P < 0.001$).

The prevalence of experiencing different types of workplace violence with differing demographic characteristics of the respondents is shown in Table 2.

The most frequent perpetrators of verbal violence were relatives/friends of the patients (36%, $n = 622$). Others named were academic staff (36%, $n = 614$), other residents/senior residents (21%, $n = 353$), patients (20%, $n = 342$), head of department (13%, $n = 223$) and non-medical hospital staff (6%, $n = 106$) (Table 3).

When responding to choices about perceptions of and reactions to the violence experienced, the commonest response was being deeply disturbed but feeling they simply had to cope with it for the sake of their career (39% of victims). Others reported being confused and bewildered by the action and uncertain how to respond (19%) or being distressed (26%) but considering that such events are common in all occupations and therefore discounting it (Table 4).

In all, 32% of the respondents reported that they were taught about violence during undergraduate medical education when the subject of violence and abuse was either included in the forensic medicine curriculum (43%) or in paediatrics (21%), public health (17%), medical ethics or other courses. The violence concepts were taught most frequently in the courses of forensic sciences (43%).

Discussion

About two-thirds of the physicians enrolled in the study indicated that they had been exposed to some kind of violence; the type of violence was verbal in 67%, physical in 16% and sexual in 3%.

Reports show that workplace violence has become a serious problem for workers in all professional groups, genders and work settings in the health sector [3–6]. In 1998, ~40% of the United Kingdom National Health Service staff reported being bullied, and 67% of health workers reported having experienced physical or psychological violence in 2001 in Australia [4–6]. Research also shows that more than half of health personnel in Bulgaria (76%), South Africa (61%) and Thailand (54%) have experienced at least one incident of physical or psychological violence [4,5]. The rates of these reports are fairly similar to the results for the physicians in residency training in the present study.

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Table 2. Prevalence of workplace experience of violence by general demographic characteristics of the respondents (n = 1712)

Variable	Exposure to any kind of violence, n (%)	Exposure to verbal violence, n (%)	Exposure to physical violence, n (%)	Exposure to sexual violence, n (%)
Total sample population	1159 (68)	1142 (67)	272 (16)	53 (3)
Gender (n = 1712)				
Male (n = 973)	647 (67)	639 (66)	172 (18)	17 (2)
Female (n = 739)	511 (69)	503 (68)	100 (14)	36 (5)
Fisher's exact test	$P > 0.05$	$P > 0.05$	$P < 0.05$	$P < 0.001$
Marital status (n = 1712)				
Married (n = 813)	567 (70)	256 (32)	144 (18)	13 (2)
Single (n = 863)	563 (65)	306 (36)	124 (14)	40 (5)
Widow (n = 36)	28 (78)	8 (22)	4 (11)	0 (0)
Chi square	$P > 0.05$	$P > 0.05$	$P > 0.05$	$P < 0.001$
Geographical region (n = 1712)				
East Anatolia (n = 231)	142 (62)	142 (62)	28 (12)	10 (43)
Southeast Anatolia (n = 203)	150 (74)	149 (73)	67 (33)	9 (4)
Marmara region (n = 319)	209 (65.5)	207 (64.9)	32 (10.0)	15 (4.7)
South west Aegean region (n = 174)	109 (63)	109 (63)	21 (12)	0
Central Anatolia (n = 327)	247 (76)	236 (72)	68 (21)	12 (4)
Mediterranean region (n = 166)	106 (64)	106 (64)	20 (12)	4 (2)
Black Sea region (n = 292)	195 (67)	193 (66)	36 (12)	3 (1)
Chi square	$P < 0.05$	$P < 0.05$	$P < 0.001$	$P < 0.05$
Divisions (n = 1712)				
Division of Basic Medical Sciences (n = 217)	94 (43)	94 (43)	6 (3)	4 (2)
Division of Internal Medicine (n = 860)	586 (68)	576 (67)	141 (16)	28 (3)
Division of Surgical Sciences (n = 635)	478 (75)	472 (74)	125 (20)	21 (3)
Chi square	$P < 0.001$	$P < 0.001$	$P < 0.001$	$P > 0.05$
Age, n = 1712 (mean ± standard deviation)	28.51 ± 3.13	28.54 ± 3.13	28.63 ± 3.29	28.39 ± 2.83
t-test	Not significant	Not significant	Not significant	Not significant

Table 3. Prevalence of different types of violence according to the perpetrators

Type of violence (n = 1712)[a]	Perpetrators					
	Head of department	Academic staff member	Other residents/senior residents	Non-medical hospital staff	Patient	Patient's relative/friend
Verbal	223 (13)	614 (36)	353 (21)	106 (6)	342 (20)	622 (36)
Physical	7 (0.4)	46 (3)	48 (3)	26 (2)	92 (5)	178 (10)
Sexual	2 (0.1)	18 (1)	12 (1)	3 (0.2)	21 (1)	16 (1)

[a]Some physicians reported experience of more than one type of violence.

The rate of exposure to any violence did not differ by sex but male physicians in training were more likely to be exposed to physical violence and female physicians in training were more likely to be exposed to sexual violence. Various other reports support this finding [4,9–12]. This difference based on sex may be attributed to the social structure of the society, with perpetration of physical violence being more prevalent among men, the perception of women as sexual objects, avoidance of reporting sexual assault by women and low assertiveness due to social pressures. Marital status (specifically being unmarried) appeared to be a significant indicator of risk of being subject to sexual violence, although this association does not prove causation.

There were significant differences in the rates of being exposed to violence according to training division, being highest in the Division of Surgical Sciences, followed by Internal Medicine and then the Division of Basic Medical Sciences although there was no difference between the divisions with regard to being subject to physical violence. The higher rate of exposure to any type of violence among residents in the Internal Medicine and Surgical Sciences Divisions compared with those in Basic Medical Sciences may be attributable to the nature of training that requires more frequent and closer contact with potential sources of violence and the potential for exposure to highly stressful circumstances for both the patient and senior staff in these departments.

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Table 4. Answers to the question 'As the result of experiencing workplace violence, what did you feel/what was your reaction?'

Answers	Number	%
It had a major impact on me. I considered leaving my current speciality training programme	56	5
I pursued/am pursuing some form of legal action against the perpetrator	42	4
The experience was stressful for me, but I do not consider this important because every occupation involves some kind of violence	304	26
I was deeply disturbed but had to cope with for the sake of my career	448	39
I feel or felt confused and bewildered by the experience and have continued with my speciality training without knowing what else to do	217	19
I have continued with my speciality training while having psychological counselling	14	1
I stood up to him/her	47	4
We solved the problem by discussing it	22	2
Total[a]	1150	100.0

[a]Nine participants who were exposed to some kind of violence, but did not respond to this question were not included in this table.

The rate of being subject to any kind of violence, verbal/emotional violence and physical violence varied by region and it is thought this relates to socio-economic status.

The most frequent sources of violence imposed upon physicians enrolled in the study were relatives/friends of patients, academic staff members and senior/other residents which is in accordance with the findings of other studies [9,11,12].

While a considerable percentage (39%) of physicians exposed to violence indicated that the condition had a major impact on them, but that they had to continue their training regardless, 19% declared they were confused and bewildered by the situation, 5% reported that they considered leaving speciality training and 26% considered that such events were common in all occupations and that they did not consider it important. A study by Celik and Bayraktar [13] investigating the abuse experiences of nursing students in Turkey found that a large proportion of students experiencing violence felt anger toward the perpetrator. The results of our study suggest that exposure to violence often has a great impact on physicians. Exposure to violent acts has negative physical, psychological and social effects [14].

Sixty per cent of physicians in speciality training worried about being exposed to any kind of violence, 39% about verbal violence and 20% about physical violence. In a study by Olmezoglu *et al.* [9], 81% of Izmir 112 Emergency Service workers feared being exposed to any kind of violence. Providing alarm systems in high-risk areas and training staff working in the emergency services on assessing and managing aggressive individuals are likely to be important in controlling this risk.

One major limitation of this study is non-response bias that may be due to certain types of individuals responding or not responding to the questionnaire. It is unclear whether the non-respondents considered workplace violence to be an insignificant issue in their speciality training (although our results seem to suggest that poorer response rates occurred in regions with higher rates of reported exposure to workplace violence) or whether in those regions where violence was more prevalent some of the recipients did not want to participate for reasons such as fear, denial, cultural factors, a sense of duty or simply a wish to get on with training. In either case, the non-response bias may be influencing the final results and thereby the rate of exposure to workplace violence may have been underestimated. However, the relatively high response rate obtained in this study does in our view strengthen the validity of our findings.

A second limitation of this study is the cross-sectional design, making it impossible to determine whether relationships identified may indeed be causal. Another related limitation is the self-report design of this study, and further research into this issue may require a more discriminating measurement tool, possibly based perhaps on workshops rather than a self-report questionnaire.

In conclusion, physicians in speciality training in medical schools in Turkey are exposed to considerable levels of verbal/emotional, physical or sexual violence. It is hoped that the data obtained in this nationwide study will lead to improved awareness and understanding of this important issue among health personnel and other parties concerned at all levels. Our findings suggest that a number of measures, including prevention and management strategies, multidisciplinary training programs and administrative regulations, are required to reduce workplace violence against physicians in residency training in Turkey and to minimize its impact.

Key points

- This study provides the first epidemiological data on experience of workplace violence among physicians in residency training in several departments of medical schools of Turkey.
- High rates of both physical and verbal violence were identified in a population of physicians in speciality training from all regions of Turkey.
- The most frequent perpetrators were relatives/friends of the patients, followed by academic staff and patients. The impact of the violence on the victims seems to have been considerable in a substantial proportion of cases.

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Conflicts of interest

None declared.

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