

ENCOURAGING EMPLOYEES TO REPORT VERBAL VIOLENCE IN PRIMARY HEALTH CARE IN SERBIA: A CROSS-SECTIONAL STUDY

SPODBUJANJE ZAPOSLENIH K PRIJAVI VERBALNEGA NASILJA V OSNOVNEM ZDRAVSTVENEM VARSTVU V SRBIJI: PRESEČNA ŠTUDIJA

Marina B FISEKOVIC KREMIC^{1*}, Zorica J TERZIC-SUPIC¹, Milena M SANTRIC-MILICEVIC¹, Goran Z TRAJKOVIC¹

¹Primary Health Center New Belgrade, Djordja Cutukovica 48a, Zemun, 11070 Belgrade, Serbia

Received: Jan 25, 2016
Accepted: May 16, 2016

Original scientific article

ABSTRACT

Keywords:

verbal workplace violence, contributing factors, health workers

Introduction. Workplace violence is a serious and multidimensional problem that adversely affects professional and personal lives of employees. The aim of this study was to assess the prevalence and characteristics of verbal violence as a part of psychological violence among employees in primary health care in Belgrade, and to identify contributing factors of verbal violence in the workplace.

Methods. In this cross-sectional study, the final analysis included 1526 employees, using multi-stage sampling. Data were collected using the questionnaire Workplace Violence in the Health Sector Country Case Studies Research, developed by ILO/ICN/WHO/PSI. Descriptive statistics and logistic regression analysis were used to analyse the data. The general response rate was 86.8% (1526/1757).

Results. It was found that 47.8% of the participants were subjected to verbal violence. The main source of verbal violence was patient/client, 55.6% of employees did not report the incident. Among those who did not report the incident, 74.9% believed that reporting violence was useless. The interaction with patients (OR, 1.45; 95% CI, 1.02-2.06) and work between 6pm and 7am (OR, 1.27; 95% CI, 1.01-1.60) were significant contributing factors of verbal violence.

Conclusion. The results are indicative of a high prevalence of verbal violence against employees in primary health centres, which could have undesirable consequences. Conducting a better organizational measure and encouraging employees to report workplace violence could reduce the prevalence of verbal violence.

IZVLEČEK

Ključne besede:

verbalno nasilje na delovnem mestu, dejavniki spodbujanja, zdravstveni delavci

Uvod. Nasilje na delovnem mestu je zelo resna in večdimenzionalna težava, ki prizadane strokovno in osebno življenje zaposlenega. Cilj te študije je ovrednotenje razširjenosti in lastnosti verbalnega nasilja kot del psihološkega nasilja med zaposlenimi v osnovnem zdravstvenem varstvu v Beogradu ter prepoznavanje dejavnikov, ki prispevajo k verbalnemu nasilju na delovnem mestu.

Metode. Zaključna analiza presečne študije vključuje 1526 zaposlenih z uporabo vzročnega na več stopnjah. Zbiranje podatkov je potekalo z uporabo vprašalnika 'Raziskava študije primerov držav glede nasilja na delovnem mestu v zdravstvenem sektorju' (Workplace Violence in the Health Sector Country Case Studies Research), ki ga je razvil program ILO/ICN/WHO/PSI. Za obdelavo podatkov so bile uporabljene opisne statistike in logistično regresijska analiza. Splošna stopnja odzivnosti je bila 86,8% (1526/1757).

Rezultati. Izkazalo se je, da je bilo 47,8% sodelujočih podvrženo verbalnemu nasilju, glavni vir verbalnega nasilja pa je bil s strani pacienta/stranke, 55,6% zaposlenih pa dogodka ni prijavilo. Med vsemi, ki dogodka ni prijavilo, jih 74,9% verjame, da bi bila prijava odveč. Stik s pacienti (OR, 1,45; 95% CI, 1,02-2,06) in delovni čas med 18h in 7h (OR, 1,27; 95% CI, 1,01-1,60) sta dejavnika, ki znatno prispevata k verbalnemu nasilju.

Zaključki. Rezultati nakazujejo visoko razširjenost verbalnega nasilja med zaposlenimi v zdravstvenih centrih, kar lahko povzroči neželene posledice. Boljši organizacijski ukrepi ter spodbujanje k prijavi nasilja na delovnem mestu bi lahko zmanjšalo razširjenost verbalnega nasilja.

*Corresponding author: E-mail: marinaf@sezampro.rs

1 INTRODUCTION

Workplace violence is a serious and multidimensional problem that adversely affects professional and personal lives of employees (1, 2). Violence appears as physical violence or as psychological violence in different forms. Psychological violence (Emotional abuse) is "Intentional use of power, including threat of physical force, against another person or group, that can result in harm to physical, mental, spiritual, moral or social development" (3, 4). It includes verbal abuse, bullying/mobbing, harassment and threats. Verbal violence is behaviour that humiliates, degrades or otherwise indicates the lack of respect for the dignity and worth of an individual. Psychological violence should be considered more deeply, because results of studies indicate a high prevalence of this kind of violence (5-7).

Psychological workplace violence can lead to a decrease in job satisfaction, quality of life and productivity (8, 9). It might, consequently, lead to an increase in medical errors, the reduction of patient care quality, and it might have negative effects on the employee-patient communication (10, 11). Employees in health care institutions are at the top of the list of occupations with a high level of stress and the risk of workplace violence (12).

Studies from twenty years ago showed that verbal violence was the most frequent type of violence, but the true prevalence of it is unknown and varies from country to country (4, 13, 14). Verbal violence against healthcare workers ranges from 23.2% to 97.8% (7, 15, 16).

Globalization and intense transition are expected to increase the number of victims of violence in the workplace (4, 17). In the last two decades, Serbia faced different challenges. It was a period of transition and reforms in all social and economic areas, including health care system. In the period from 2005 to 2010, an increase of workplace violence from 48.7% to 64.2% was recorded, which was reported by non-governmental organizations or trade unions (18). In Serbia, there is a legal basis for the prevention of abuse at work, which should provide greater security for employees: The Constitution of the Republic of Serbia, Labour Law, Law on the Prevention of Workplace Harassment, Discrimination Law, Law on Safety and Health at Work (19). In spite of this, there is no sufficient social and media attention given to this problem because of the lack of information about the types of assistance available, the procedures to report violence, and the lack of strategies which might reduce or prevent verbal violence.

The aim of this study was to assess the prevalence and characteristics of verbal violence as a part of psychological violence among employees in primary health care in Belgrade, and to identify contributing factors of verbal violence in the workplace.

2 MATERIALS AND METHODS

2.1 The Study Design and Participants

This cross-sectional study was conducted among employees in primary healthcare in Belgrade, conducted between October 2012 and July 2013. The study population was medical (1320 (86.6%)) and non-medical employees (205 (13.4%)). Multistage random sampling was conducted in three phases. Details of the study design, population and sampling procedures are described in another article (20).

2.2 Data Collection

Data were collected using the questionnaire Workplace Violence in the Health Sector Country Case Studies Research, developed by ILO/ICN/WHO/PSI (3, 21). The questionnaire was translated into Serbian by a multidisciplinary team, following standard methods of translating, and adapted to the context of Serbian PHCs to improve clarity and appropriateness of our situation (22). The high test-retest reliability was achieved; Spearman was 0.91 and kappa coefficients were ≥ 0.90 . A pilot questionnaire was tested in a group of 20 health workers at the beginning of the study and two weeks after it (20). This questionnaire contains four sections to assess personal and workplace information (27 items), physical violence (25 items), psychological workplace violence (emotional abuse), including verbal abuse, mobbing, sexual harassment and racial harassment (57 items), the health sector (5 items). In this study, our results are associated only with verbal violence, because of the extensive amount of data involved.

2.3 Data Analysis

Descriptive statistics were used to analyse the data (the prevalence of exposure to verbal violence and the frequency of socio-demographic and work characteristics, the reaction of employees to verbal violence), using the SPSS software version 20. Univariate analyses were conducted to assess the association between each independent variable (socio-demographic and work characteristics) and the outcome variable, verbal violence [yes/no]. All variables which were significantly associated with the outcome measure ($p < 0.05$) were entered into a multiple logistic regression model. The odds ratio (OR) and confidence intervals (95% CIs) were calculated. The Hosmer-Lemeshow goodness-of-fit test was used to assess the validity of the logistic models. (23).

3 RESULTS

A general response rate was 86.8% (1526/1757). The final analysis included 1526 employees, 243 men (15.9%) and 1280 women (83.9%). There was no significant association between the exposure to workplace verbal violence

and gender, age, marital status and years of work experience. However, the prevalence of verbal violence was significantly higher among employees who interacted with patients, worked in shifts, and worked between 6pm

and 7am ($P < 0.001$; see Table 1). Furthermore, verbal violence was more prevalent among employees who had more education (Table 1).

Table 1. Socio-demographic and work characteristics of participants ($n=1526$)^a.

Variable, n (%)	Verbal violence			p-value
	Yes (729)	No (797)	OR (95% CI)	
Gender				
Male	103 (14.1)	140 (17.6)	1.00 (Reference)	0.062
Female	626 (85.9)	654 (82.4)	1.30 (0.99-1.72)	
Age				
≤29	55 (7.6)	64 (8.1)	1.00 (Reference)	0.252
30-49	454 (62.4)	422 (53.2)	1.25 (0.85-1.84)	
≥50	219 (30.1)	307 (38.7)	0.83 (0.56-1.24)	
Marital status				
Married/Permanent relationship	509 (70.2)	586 (73.6)	1.00 (Reference)	0.139
Single	216 (29.8)	210 (26.4)	1.18 (0.95-1.48)	
Education level				
Primary	9 (1.2)	25 (3.1)	1.00 (Reference)	0.016
Secondary	369 (50.6)	397 (49.9)	2.58 (1.19-5.60)	
College	80 (11)	85 (10.7)	2.61 (1.15-5.94)	
Faculty	271 (37.2)	289 (36.3)	2.60 (1.19-5.68)	
Professional group				
Physician	208 (28.5)	230 (28.9)	1.00 (Reference)	0.094
Nurse	462 (63.4)	420 (52.8)	1.22 (0.97-1.53)	
Other	59 (8.1)	146 (18.3)	0.45 (0.31-0.64)	
Years of work experience				
≤10	155 (21.3)	152 (19.1)	1.00 (Reference)	0.881
11-20	246 (33.8)	236 (29.6)	1.02 (0.77-1.36)	
>20	327 (44.9)	408 (51.3)	0.79 (0.60-1.03)	
Working in shifts				
No	117 (16.0)	210 (26.3)	1.00 (Reference)	<0.001
Yes	612 (84.0)	587 (73.7)	1.87 (1.45-2.41)	
Working between 6pm and 7am				
No	441 (60.5)	556 (69.9)	1.00 (Reference)	<0.001
Yes	288 (39.5)	239 (30.1)	1.52 (1.23-1.88)	
Interacting with patients during work				
No	79 (10.8)	176 (22.1)	1.00 (Reference)	<0.001
Yes	650 (89.2)	621 (77.9)	2.33 (1.75-3.11)	
The age group of patients				
Preschool children	49 (6.8)	34 (4.7)	1.00 (Reference)	0.070
School children	87 (12.1)	98 (13.5)	0.62 (0.36-1.04)	
Adults	391 (54.3)	436 (60.0)	0.62 (0.39-0.98)	
Elderly	193 (26.8)	159 (21.9)	0.84 (0.52-1.37)	
The number of staff in the same work setting				
> 20	598 (82.0)	607 (76.2)	1.00 (Reference)	0.005
≤ 20	131 (18.0)	190 (23.8)	0.70 (0.55-0.90)	
An encouragement to report workplace violence				
No	379 (52.0)	332 (41.8)	1.00 (Reference)	<0.001
Yes	350 (48.0)	463 (58.2)	0.66 (0.54-0.81)	

^a The sum may be less than the total number of participants because of the missing data

48% of employees reported that they had been subjected to verbal violence at the workplace. Verbal attacks occurred most often sometimes (82.0%) and inside health organizations (97.4%). The main source of verbal violence was the patient/client (52.1%) (Table 2).

Table 2. Characteristics of verbal violence in the workplace (n=729).

Variables	Values, n(%)
The exposure to verbal violence	
No	797(52.2)
Yes	729(47.8)
How often	
All the time	54(7.4)
Sometimes	598(82.0)
Once	77(10.6)
Who verbally abused	
A patient/client	380(52.1)
Relatives of a patient/client	104(14.3)
A staff member	156(21.4)
The management	79(10.8)
An external colleague/worker	4(0.5)
The general public	4(0.5)
The place of verbal violence occurrence	
Inside health organizations	710(97.4)
At a patient's home	10(1.4)
Outside (on one's way to work)	7(1.0)

Out of all participants who experienced verbal violence, 45,7% told to a colleague and 55.6% of employees did not report the incident. Among those who did not report the incident, 74.9% believed that reporting violence was useless (Table 3). Participants could mark more than one answer to questions related to reactions toward violence and reasons for not reporting the incident.

Table 3. Reactions of employees to verbal violence (n=729).

Variables	Values, n(%)
Reactions of participants toward violence	
Told a colleague	333(45.7)
Told the person to stop	313(42.9)
Told friends/family	197(27.0)
Took no action	183(25.1)
Tried to pretend it never happened	148(20.3)
Sought help from the union	33(4.5)
Completed the incident form	32(4.4)
Sought counselling	12(1.6)
Tried to defend themselves	5(0.7)
Reporting the incident	
No	406(55.6)
Yes	323(44.3)

Variables	Values, n(%)
Action taken with regard to the incident occurred	
No	510(70.1)
Yes	93(12.8)
Do not know	125(17.2)
The source for taking the action	
The management	65(67.7)
An employer	23(24.0)
The union	0
The association	0
The police	4(4.2)
Satisfaction with the manner in which the incident was handled	
Very dissatisfied	301(44.6)
Dissatisfied	189(28.0)
Moderately satisfied	121(17.9)
Satisfied	24(3.6)
Very satisfied	37(5.5)
The reason for not reporting the incident	
It was not important	60(14.8)
Felt ashamed	10(2.5)
Felt guilty	0
Afraid of negative consequences	78(19.2)
Useless	304(74.9)
Did not know whom to report	61(15.0)

Many of employees who have experienced verbal violence had disturbing memories, thoughts, or images of the abuse (69.3%) (Table 4).

Table 4. Reac Problems and complaints that employees experienced after verbal violence (n=729). tions of employees to verbal violence (n=729).

Variables	Values, n(%)
Disturbing memories, thoughts, or images of the abuse	
No	223 (30.6)
Yes	506 (69.3)
Avoiding thinking or talking about the abuse	
No	319 (43.8)
Yes	410 (56.1)
Being watchful and on guard	
No	254 (34.8)
Yes	475 (65.2)
Feeling like everything you had done was an effort	
No	313 (43.0)
Yes	416 (47.0)

Multiple logistic regression analyses (Table 5) indicated that nurses, as a professional group (OR=2.57, 95% CI: 1.59-4.13), who work between 6pm and 7am (OR=1.34, 95% CI: 1.07-1.68), interact with patients during work (OR=1.77, 95% CI: 1.26-2.47), with less than 20 employees in the same work setting (OR=1.43, 95% CI: 1.10-1.85) and with no encouragement to report workplace violence (OR=1.56, 95% CI: 1.28-1.96), were predictors of verbal violence.

Table 5. Multiple logistic regression model with verbal violence as the dependent variable.

Independent variables	Values, n(%)	
A professional group		
A physician	1.00 (Reference)	
A nurse	2.57 (1.59-4.13)	<0.001
Other	0.97 (0.60-1.57)	0.897
Working in shifts		
No	1.00 (Reference)	
Yes	1.30 (0.97-1.74)	0.083
Working between 6pm and 7am		
No	1.00 (Reference)	
Yes	1.34 (1.07-1.68)	0.011
An interaction with patients during work		
No	1.00 (Reference)	
Yes	1.77 (1.26-2.47)	0.001
The level of education		
Primary	1.00 (Reference)	0.480
Secondary	0.73 (0.30-1.75)	0.657
College	0.81 (0.32-2.04)	0.355
Faculty	1.52 (0.62-3.70)	
The number of staff in the same work setting		
≤20	1.00 (Reference)	0.008
>20	1.43 (1.10-1.85)	
An encouragement to report workplace violence		
Yes	1.00 (Reference)	
No	1.56 (1.28-1.96)	<0.001

4 DISCUSSION

The results indicated that 47.8% of employees had been exposed to verbal violence. Workplace violence has increased in countries worldwide (4, 24). The prevalence rates of verbal violence were from 29.8% to over 82% in the previous studies (15, 25). According to our knowledge, there is not a lot of research on workplace violence and mobbing conducted in Bosnia and Herzegovina, and 76% of physicians self-reported one or more types of mobbing

behaviour (26). In Slovenia, the study was conducted on health care workers in emergency departments in primary and secondary health care, and it showed that 74.2% of them experienced verbal or other forms of indirect verbal violence at the workplace (27). These results confirm that verbal violence against healthcare workers is a serious problem (7, 16, 28).

Our study showed that patients were the main source of verbal violence. In most other studies, patients are attackers, followed by their relatives or employees (25, 29). In our study, verbal violence is 1.5 times more common among employees who interact with patients during work. This finding might indicate the miscommunication between patients and healthcare workers, especially nurses. Nurses are the group of health professionals who are at risk for workplace violence in our study and most other studies (9-11, 29). The studies showed that workplace violence among nurses, compared to other professional groups, is a frequent problem, and has negative effects on nurses' health, work, and therefore on the quality of care (1, 10, 11, 30). Nurses are the first to come into contact with patients and their relatives. It is necessary to improve the quantity and quality of their communication with patients (14). Patients may either feel that they did not receive an appropriate treatment or what they deserved, or that they did not receive the treatment in time (16, 31). It is possible that patients are impatient because of the nature of a disease or because of a crowd. Besides illness, it is possible that many of them are under the influence of alcohol, drugs, or possessing weapons (4, 25).

Working in night shifts is considered to be a high-risk factor for the exposure to violence, which is confirmed by other and our research findings, while working between 6pm and 7am, according to our study, is about 1.3 times more frequent to be a risk factor for the exposure to violence among employees. Higher rates of violence during night shifts can be attributed to personnel who are required to work alone, and are under stress caused by patients' self-assessment that the need for care was urgent, long waiting times for procedures, the failure to obtain necessary services promptly, or poor work and working conditions (25, 32). In our study, the exposure to verbal violence occurred more often in the work settings with 20 and more employees. It is known that workers in medium- and large-sized organisations experienced workplace violence more often than those in small-sized organisations (33).

In the current study, more than half of the participants did not report violence. In other studies, despite a high prevalence of verbal violence, participants also did not report violence (7, 28, 30). The encouragement to report workplace violence and increased awareness and information on the occurrence of workplace violence are measures that contribute to better reporting and combating

violence (29, 34, 36). In our study, the encouragement to report workplace violence was 53.3%.

In this study, participants considered reporting useless (74.9%), because they were concerned that they may suffer another assault by reporting it, or feared losing their jobs (36). The lack of reporting could be due to the lack of proper feedback from officials and the lack of proper guidelines for violence reporting. Moreover, this might indicate that health care workers do not trust legal institutions (37, 38).

The strength of this study is a better understanding of workplace violence, because the real size of the problem is still unknown, and this study provides the data about it. One of strengths is that the prevalence of workplace verbal violence is determined. Another strength of this study is that it explains the relationship between predictors of verbal violence and verbal violence itself, and provides the ability for planning measures against workplace violence as well as the basis for future research.

There were some limitations in the present study. First, the data were collected retrospectively, and self-reports may cause recall bias and underreporting. Second, the findings of this study cannot be generalized and are limited to the workplaces in the study. Also, the results may suffer from a misunderstanding of the workplace violence definition or the lack of willingness to share private information.

5 CONCLUSION

In conclusion, the results are indicative of a high prevalence of verbal violence against employees in primary health centres, which could have undesirable consequences. Contributing factors of verbal violence include the interaction with patients during work, a large number of staff in the same work setting, and working between 6pm and 7am. The majority of the participants were not inclined to report verbal violence because they thought it would have been useless and due to the lack of encouragement to do so. Conducting better organizational measures and encouraging reporting workplace violence could reduce the prevalence of verbal violence.

CONFLICTS OF INTEREST

The authors declare that no conflicts of interest exist.

FUNDING

None.

ETHICAL APPROVAL

The study was approved by the Secretariat of Health of Belgrade and by the Ethics Committee at the University of Belgrade, the Faculty of Medicine. The participation in the research was voluntary. Anonymity, confidentiality and privacy of data were explained and guaranteed. Before research, in order to obtain verbal consent, every employee received relevant details regarding the background and objectives of the survey.

REFERENCES

1. Chen WC, Sun YH, Lan TH, Chiu HJ. Incidence and risk factors of workplace violence on nursing staffs caring for chronic psychiatric patients in taiwan. *Int J Environ Res Public Health* 2009; 6: 2812-21.
2. Rodwell J, Demir D. Oppression and exposure as differentiating predictors of types of workplace violence for nurses. *J Clin Nurs* 2012; 21: 2296-305.
3. Workplace violence in the health sector-country case studies research instrument -survey questionnaire. Geneva: ILO/ICN/WHO/PSI Joint Programme on workplace violence in the Health sector, 2002.
4. Di Martino V. Workplace violence in the health sector-country case studies (Brazil, Bulgaria, Lebanon, Portugal, South Africa, Thailand and an Additional Australian Study): synthesis report. Geneva: ILO/ICN/WHO/PSI Joint Programme on workplace violence in the health sector, 2002.
5. Franz S, Zeh A, Schablon A, Kuhnert S, Nienhaus A. Aggression and violence against health care workers in Germany: a cross sectional retrospective survey. *BMC Health Serv Res* 2010; 10: 51.
6. Hye-Eun L, Hyoung-Ryoul K, Jung Sun P. Work-related risk factors for workplace violence among Korean employees. *J Occup Health* 2014; 56: 12-20.
7. Fallahi Khoshknab M, Oskouie F, Najafi F, Ghazanfari N, Tamizi Z, Ahmadvand H. Psychological violence in the health care settings in Iran: a cross-sectional study. *Nurs Midwifery Stud* 2015; 4: e24320.
8. Zeng JY, An FR, Xiang YT, Qi YK, Ungvari GS, Newhouse R, et al. Frequency and risk factors of workplace violence on psychiatric nurses and its impact on their quality of life in China. *Psychiatry Res* 2013; 210: 510-4.
9. Hegney D, Tuckett A, Parker D, Eley RM. Workplace violence: differences in perceptions of nursing work between those exposed and those not exposed: a cross-sector analysis. *Int J Nurs Pract* 2010; 16: 188-202.
10. Lau JB, Magarey J, Wiechula R. Violence in the emergency department: an ethnographic study (part II). *Int Emerg Nurs* 2012; 20: 126-32.
11. Blair PL. Lateral violence in nursing. *J Emerg Nurs* 2013; 39: e75-8.
12. Kitaneh M, Hamdan M. Workplace violence against physicians and nurses in Palestinian public hospitals: a cross-sectional study. *BMC Health Ser Res* 2012; 12: 469.
13. Najafi F, Fallahi-Khoshknab M, Dalvandi A, Ahmadi F, Rahgozar M. Workplace violence against Iranian nurses: a systematic review. *J Health Prom Manag* 2014; 3: 72-85.
14. Carmi-Iluz T, Peleg R, Freud T, Shvartzman P. Verbal and physical violence towards hospital- and community-based physicians in the Negev: an observational study. *BMC Health Serv Res* 2005; 5: 54.
15. Pai HC, Lee S. Risk factors for workplace violence in clinical registered nurses in Taiwan. *J Clin Nurs* 2011; 20: 1405-12.
16. Zampieron A, Galeazzo M, Turra S, Buja A. Perceived aggression towards nurses: study in two Italian health institutions. *J Clin Nurs* 2011; 20: 1796.

17. European Agency for Safety and Health at Work. Guidance on work-related stress: spice of life or kiss of death? Luxembourg: Commission of the European Communities, Office for Official Publications of the European Communities, 2002.
18. Radaković D. Support for victims of crime: analysis of the VDS info and victim support service in 2009 *Temida* 2010; 13: 97-112.
19. The legal and economic editions for the successful and legitimate management. Paragraph RS. Available March, 2012 from: <http://www.paragraf.rs/propisi/>.
20. Fisekovic MB, Trajkovic GZ, Bjegovic-Mikanovic VM, Terzic-Supic ZJ. Does workplace violence exist in primary health care?: evidence from Serbia. *Eur J Public Health* 2015; 25: 693-8.
21. Framework guidelines for addressing workplace violence in the health sector. Geneva: ILO/ICN/WHO/PSI Joint Programme on Workplace Violence in the Health Sector, 2002.
22. World Health Organization. Management of substance abuse, process of translation and adaptation of instruments. Available April 6, 2013 from: <http://www.who.int/substanceabuse/researchtools/translation/>.
23. Hosmer DW, Lemeshow S, Sturdivant RX. Applied logistic regression. 3rd rev ed. Hoboken, New Jersey: Wiley and Sons, 2013.
24. Child RJ, Montes JC. Violence against women: the phenomenon of workplace violence against nurses. *Issues Ment Health Nurs* 2010; 31: 89-95.
25. Abbas MA, Fiala IA, Abdel Rahman AG, Fahim AE. Epidemiology of workplace violence against nursing staff in Ismailia Governorate. Egypt. *J Egypt Public Health Assoc* 2010; 85: 29-43.
26. Pranjić N, Males Bilic L, Beganlic A, Mustajbegovic J. Mobbing, stress and work ability index among physicians in Bosnia and Herzegovina: survey study. *Croat Med J* 2006; 47: 750-8.
27. Jerkic K, Babnik K, Karnjus I. Verbal and indirect violence in emergency services. *Obzor Zdrav Nege* 2014; 48: 104-12.
28. Mantzouranis G, Fafliora E, Bampalis VG, Christopoulou I. Assessment and analysis of workplace violence in a Greek tertiary hospital. *Arch Environ Occup Health* 2014; 23.
29. Magnavita N, Heponiemi T. Violence towards health care workers in a public health care facility in Italy: a repeated cross-sectional study. *Magnavita Heponiemi BMC Health Serv Res* 2012, 12: 108.
30. Albashtawy M, Aljezawi M. Emergency nurses' perspective of workplace violence in Jordanian hospitals: a national survey. *Int Emerg Nurs* 2016; 24: 61-5.
31. Deak G. Hospital security-preventing and managing workplace violence in health care sector. *AARMS* 2011; 10: 161-71.
32. Edwards D, Burnard P. A systematic review of stress and stress management interventions for mental health nurses. *J Adv Nurs* 2003; 42: 169-200.
33. Herath P, Forrest L, McRae I, Parker R. Patient initiated aggression - prevalence and impact for general practice staff. *Aust Fam Physician* 2011; 40: 415-8.
34. Lipscomb AJ, Ghaziri EL M. Workplace violence prevention: improving front-line health-care worker and patient safety. *New Solutions* 2013; 23: 297-313.
35. Dębska E, Szczegielniak A, Skowronek A, Wydra K, Frey P, Skowronek R, Krysta K. Different dimensions of aggression occurring in the work environment of psychiatrists. *Psychiatr Danub* 2012; 24: 165-8.
36. Kostelic-Martić A. Mobbing prevention and types of assistance to the victims. *Temida* 2006; 9: 11-6.
37. Lipscomb JA, El Ghaziri M. Workplace violence prevention. Improving front line health care worker and patient safety. *New Solutions* 2013; 23: 297-313.
38. Fallahi Khoshknab M, Tamizi Z, Ghazanfari N. Workplace violence status, vulnerable and preventive factors among nurses working in psychiatric wards. *J Health Prom Manag* 2013; 2: 7-16.