

Systematic Review on Violence Faced by Healthcare Workers in Pediatrics Departments in Saudi Arabia

Mohammed Salem S Albalwei^{1*}, Nazim Faisal Salem Ahmed², Nasser Mufleh Vahed Albalawi³

¹Director of the Maternal and Child Health Center, Tabuk, Saudi Arabia.

²Department of Pediatrics, Maternal and Child Health Center, Tabuk, Saudi Arabia. ³Maternal and Child Health Center, Tabuk, Saudi Arabia.

*E-mail ✉ msalemalbawie@gmail.com

Abstract

Work Place Violence (WPV) refers to the deliberate application of psychological or physical force aimed at harming, threatening, or intimidating individuals within a professional setting. It encompasses a wide range of behaviors such as threats, bullying, assaults, or other aggressive actions that disrupt the workplace. This systematic review was conducted using PubMed, Google Scholar, and EBSCO, focusing on randomized controlled trials, observational, and experimental research exploring violence against healthcare practitioners in pediatric departments. A total of six randomized studies addressing workplace violence directed at pediatric staff were analyzed. Pediatric physicians and nurses frequently encounter various forms of aggression from parents or caregivers of pediatric patients, often driven by the emotional strain associated with the child's health status. Clear recommendations should be established to train pediatric staff in managing violent incidents and in properly reporting such occurrences.

Keywords: WPV, Violence, Workplace violence, Healthcare workers, Pediatric staff, Pediatrics departments

Introduction

Work Place Violence (WPV) is described as the deliberate exertion of psychological or physical force intended to harm, intimidate, or assault individuals within a professional environment. It includes a broad spectrum of behaviors such as threats, physical attacks, bullying, harassment, or other disruptive actions occurring at the workplace [1]. Reports indicate that between 4.9% and 65% of health care professionals have sustained physical harm in their workplace, while in the USA, 1.2% of workplace homicide victims were health

care workers. Other investigations have documented even higher prevalence rates of WPV [2].

Health Care Workers (HCWs) are particularly at risk of reactive aggression from patients and their companions, which significantly impacts both their physical and psychological well-being. The stress associated with hospitalization and illness often drives patients and their families to direct violence against healthcare workers [3–6]. Factors such as occupational fatigue, rising patient demands, and deteriorating staff–patient relationships have also been linked to the occurrence of physical assaults against health care workers [7].

WPV is commonly classified into physical and psychological violence. Physical abuse involves direct physical force or the use of objects to cause harm, including behaviors such as hitting, kicking, biting, slapping, pinching, stabbing with sharp objects, and sexual assault [8]. Outcomes can range from minor or no harm to serious injuries, permanent disabilities, or even death. Psychological or non-physical aggression, on the other hand, includes bullying, verbal insults, threats, and

Access this article online

<https://smerpub.com/>

Received: 12 September 2021; Accepted: 04 December 2021

Copyright CC BY-NC-SA 4.0

How to cite this article: Albalwei MSS, Ahmed NFS, Albalawi NMV. Systematic Review on Violence Faced by Healthcare Workers in Pediatrics Departments in Saudi Arabia. Asian J Ethics Health Med. 2021;1:81-7. <https://doi.org/10.51847/8X6UoQ4CjB>

sexual harassment. While it does not cause bodily harm, it may lead to significant psychological consequences such as stress, anxiety, reduced job satisfaction, and decreased work performance [9].

The negative impacts of WPV extend beyond physical injuries, affecting professional relationships and career trajectories. Such aggression is associated with job dissatisfaction, stress, burnout, and early resignation among medical professionals [10]. These repercussions diminish workforce productivity, compromise the quality of healthcare delivery, and increase organizational costs due to workforce shortages and the implementation of defensive strategies [11].

In pediatric outpatient clinics, service provision has been declining, and in some cases, outpatient services have been discontinued. This has resulted in overcrowded pediatric hospitals, excessive workloads for medical staff, prolonged waiting times, and inadequate quality of care, all of which contribute to frustration among families of pediatric patients, heightening the likelihood of violence [12].

Several surveys have assessed the prevalence and severity of physical violence experienced by health care workers at the hands of patients and visitors within clinical settings. In Saudi Arabia, WPV has become an emerging subject of interest, as cultural and ethical norms may differ significantly from those in other regions. Although workplace abuse against doctors and nurses is well documented in adult emergency departments (EDs), it remains underrecognized and underreported in pediatric EDs [13,14].

Pediatric nurses working in hospital inpatient units represent a particularly underexplored group regarding their perceptions and experiences of workplace abuse. Only a limited number of studies have addressed occupational violence directed specifically at pediatric nurses by patients and visitors [15].

Aim of the study

There is limited evidence available regarding violence against pediatric staff in Saudi hospitals. This study aims

to address this gap by reviewing and presenting recent updates on workplace violence targeting pediatric physicians and nurses.

Materials and Methods

A systematic review was performed using PubMed, Google Scholar, and EBSCO databases. Search terms included combinations of violence against healthcare workers, workplace violence in pediatric departments, pediatric staff and workplace violence, and WPV in Saudi Arabia. The selection process is summarized in **Figure 1**. Eligible articles consisted of randomized controlled trials, observational research, and experimental studies that investigated workplace violence affecting healthcare practitioners in pediatric departments. From each study, details such as author, year of publication, geographic region, type of study, study period, and major results were extracted and compiled into **Table 1**.

Statistical analysis

No statistical programs were employed for this review. Data extraction followed a standardized form that documented the author's name, publication year, study location, methodology, and outcomes. These records were evaluated collectively by the research team, and each dataset was verified twice to reduce possible errors and ensure reliability of the findings.

Results and Discussion

The initial database search identified 66 studies for title review. After screening, 49 articles progressed to abstract evaluation, of which 24 were excluded. Full-text assessment was performed on 25 studies, and 19 did not meet the inclusion criteria. The final review included 6 studies that were eligible for data extraction (**Table 1**). The included research varied considerably in design and methodological framework.

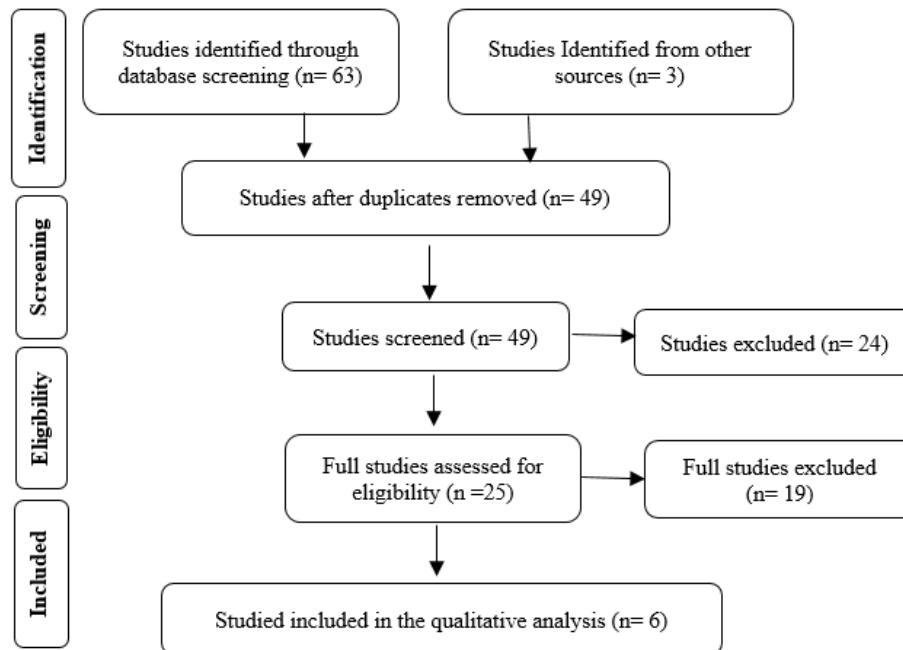


Figure 1. Flow chart of the data extraction process of the study

Gillespie, G. (2010) highlighted that verbal and physical WPV was not limited to a specific gender or professional category, as staff across all groups were vulnerable. Common characteristics of perpetrators included patients undergoing psychological assessment and visitors experiencing heightened anxiety. The consequences of these incidents were observed not only among staff but also affected offenders, patients, and healthcare employers [16].

Li *et al.* [17] revealed that 68.6% of respondents had encountered at least one WPV incident in the preceding year, with 94.9% of the perpetrators being patients' family members. The majority of these episodes took place during daytime shifts (70.7%). Male staff members were nearly twice as likely as females to experience violence. Reported outcomes of WPV included increased aggression, anger, and a decline in both work performance and efficiency [17].

Shaw [18] documented that approximately 26% of healthcare workers expressed weekly concerns about safety, while 27% reported facing fear-inducing situations at least once a week. Key triggers of fear were patient or visitor frustration, often linked to potential violence, and the presence of weapons in the ED. According to respondents, safety would be enhanced by

stronger involvement of hospital security (55%) and local law enforcement (71%) [18].

Strollo [19], based in New York, emphasized the persistence of workplace violence and underscored the urgent need for preventive and control measures to address violence targeting nurses working in inpatient pediatric hospital units [19].

Hein [20] found an occupational violence prevalence rate of 72.7% among nurses, with over 75% witnessing violence and verbal assault being the most frequent form. About a quarter of participants reported sexual assault. Regression analysis indicated that nurses in emergency rooms and outpatient clinics were 1.92 times more likely to encounter verbal harassment and 3.02 times more likely to experience physical abuse compared to those in other departments [20].

Alkorashy [21] noted that nearly half of the participants had been exposed to workplace violence within the 12 months prior to the study. Many respondents classified such experiences as physical harassment, with the majority identifying patients as the primary source. Additional contributing factors reported included understaffing, interpersonal conflicts, prolonged waiting times, and insufficient staff training and crisis prevention protocols [21].

Table 1. Author, country, year of publication, methodology, and results

Author, Year, Country	Methods and Purpose	Key Findings
Gillespie [16]	A qualitative study involving 31 pediatric ED staff to explore workplace violence (WPV) incidents and their impact on workers.	WPV is a significant concern in pediatric EDs, necessitating strategies to support staff and patient well-being.
Li <i>et al.</i> , China [17]	A retrospective cross-sectional study of 1,932 healthcare workers to assess the frequency, severity, outcomes, and risk factors of WPV in children's hospitals.	Pediatric healthcare workers face a high risk of violence. Hospital leaders should address WPV consequences and implement protective measures for a safer workplace.
Shaw [18]	A cross-sectional study with 234 healthcare professionals to examine ED staff perspectives on occupational violence and guide interventions.	WPV is increasing in pediatric EDs. Addressing actual and potential risks to staff well-being is critical, and using staff feedback is effective for reducing workplace violence.
Strollo, New York [19]	A qualitative study to investigate nurses' experiences and perceptions of WPV in inpatient pediatric units.	WPV is prevalent in pediatric inpatient settings, and significant efforts are needed to prevent and manage violence against nurses.
Hein <i>et al.</i> , China [20]	A cross-sectional study of 317 nurses from January to December 2017 to evaluate the incidence and factors related to WPV in pediatric departments.	Violence primarily occurs in EDs and outpatient areas, with verbal abuse being the most common form.
Alkorashy <i>et al.</i> , Saudi Arabia [21]	A quantitative cross-sectional study of 370 nurses to measure the prevalence of WPV against nursing staff.	WPV prevalence is extremely high among the studied nurses, indicating a pressing need for intervention.

Violence against health care providers has been steadily rising across many regions worldwide. Pediatric staff exposed to violent incidents during the course of their duties experience harmful consequences, such as reduced focus while providing care, along with other negative outcomes. Physicians are not exempt from occupational violence; nearly 20% of emergency room physicians reported being physically assaulted within the past year [22, 23]. Recognizing the link between WPV and its impact on patient care is crucial, as study findings can encourage hospital leadership to introduce violence-prevention strategies. According to Gillespie's research, all patients and visitors should be approached with the assumption that they may pose a potential threat. Employers should acknowledge how workplace violence affects staff performance, support structured debriefing, and ensure staff are trained to understand its consequences on patient care, when to seek assistance during violent episodes, and how to implement preventive measures [16].

A wide range of studies has documented high rates of WPV among health workers [24–29]. A survey conducted in Germany in 2009 revealed that 70.7% of health professionals experienced physical violence, while 89.4% encountered verbal aggression. Frequent incidents and insufficient social support were identified as contributors to workplace stress [30]. In Egypt, a study

from the Ismailia Governorate reported that 69.5% of nurses had been subjected to physical abuse, and 9.3% to verbal abuse [31]. Evidence from China, particularly in tertiary and county-level hospitals, shows that emergency departments in general hospitals face a notably high burden of WPV [32–35].

Nurses are consistently recognized as being at heightened risk. Studies conducted in Ethiopia, South Korea, Jordan, and Germany revealed that in the preceding 12 months, the prevalence of physical violence ranged from 18.22% to 56.0%, verbal abuse ranged from 63.8% to 89.58%, and sexual harassment ranged from 4.7% to 19.7% [36–41]. In the United States, between 2006 and 2009, nearly one-quarter of nurses working in emergency departments reported being subjected to more than 20 incidents of physical assault, while 20% reported experiencing over 200 instances of verbal violence. Many of those who faced such abuse also cited fear of retaliation and lack of support from hospital and ED management as key obstacles to reporting incidents [42]. Similarly, in a major mental health facility in Israel, 88.1% of nurses experienced verbal abuse from patients, and 58.4% reported physical violence within the previous year [43]. Research from Mansoura University Emergency Hospital revealed that only 7.4% of doctors had not faced any form of abuse. The most frequently reported type was physical abuse (76.5%), followed by verbal violence

(60.3%) and sexual assault (30.9%). Relatives or visitors of patients were identified as the main perpetrators of both verbal and physical aggression. The hospital lacked protective systems, monitoring mechanisms, and counseling services for staff exposed to abuse [44]. Another survey conducted in the emergency department in Ismailia found that 59.7% of HCWs had encountered workplace abuse. Verbal abuse accounted for the majority (58.2%), while 15.7% reported physical violence. The study attributed the main triggers of such incidents to unmet patient or family demands and prolonged waiting times [45].

Investigations involving nurses in the USA, Switzerland, and Jordan have also shown that those working in emergency departments are at greater risk of WPV compared to colleagues in other units [46–48]. In a Palestinian government hospital, 80.4% of nurses had experienced violence within the previous year, of which 20.8% was physical and 59.6% was non-physical [49]. A retrospective study in Australia indicated that verbal harassment (71%) was more prevalent than physical abuse (29%) [50]. Similarly, a survey of 588 nurses reported that 7.8% had faced physical abuse and 71.9% had encountered non-physical violence during the past year [51]. A population-based study involving 1,404 health workers from Community Health Centers in Guangzhou and Shenzhen found that 51.64% had witnessed WPV [52].

Previous research further showed that 89% of violent incidents were perpetrated by patients, 9% by family members, and 2% by other relatives [53]. In a nationwide survey in the United States, 78% of emergency room physicians reported being victims of occupational abuse within the past year. Among these, 75% experienced direct assaults, 21% were subjected to physical violence, 5% faced confrontations outside the workplace, and 2% encountered other forms of abuse [54].

Conclusion

Pediatric physicians and nurses are frequently exposed to workplace violence from parents or caregivers due to the emotional strain related to their child's medical condition. It is essential to provide clear guidance on how pediatric staff should respond to violent incidents and ensure proper reporting mechanisms are followed. Public health education sessions should also be organized to enhance awareness about the vital role of pediatric staff in caring for vulnerable children. In addition, physicians

and nurses require specialized training to recognize and address parental anxiety and stress, as well as strategies for effectively delivering difficult or distressing news.

Acknowledgments: None

Conflict of Interest: None

Financial Support: None

Ethics Statement: None

References

1. United States Department of Labor. Safety and Health Topics | Workplace Violence | Occupational Safety and Health Administration [Internet]. [cited 2018 Sep 8]. Available from: <https://www.osha.gov/SLTC/workplaceviolence/>
2. Butchart A, Mikton C, Dahlberg LL, Krug EG. Global status report on violence prevention. 2014.
3. Algahtani FD. Healthy Lifestyle among Ha'il University Students, Saudi Arabia. *Int J Pharm Res Allied Sci.* 2020;9(1):160-7.
4. Hanawi SA, Saat NZ, Zulkafly M, Hazlenah H, Taibukahn NH, Yoganathan D, et al. Impact of a Healthy Lifestyle on the Psychological Well-being of University Students. *Int J Pharm Res Allied Sci.* 2020;9(2).
5. Sundus A, Ismail NE, Gnanasan S. Exploration of healthcare practitioner's perception regarding pharmacist's role in cancer palliative care, malaysia. *Pharmacophore.* 2018;9(4):1-7.
6. Shakeri H, Rahmanian V, Shakeri M, Mansoorian E. Study of anti-hbs antibody titer and associated factors among healthcare staff vaccinated against hepatitis B more than ten years in hospitals of Jahrom in 2016. *Pharmacophore.* 2018;9(1):156-61.
7. Phillips JP. Workplace violence against health care workers in the United States. *N Engl J Med.* 2016;374(17):1661-9.
8. McKoy Y, Smith MH. Legal considerations of workplace violence in healthcare environments. *In Nursing Forum 2001* (Vol. 36, No. 1, p. 5). Blackwell Publishing Ltd.
9. Pinar R, Ucmak F. Verbal and physical violence in emergency departments: a survey of nurses in Istanbul, Turkey. *J Clin Nurs.* 2011;20(3-4):510-7.

10. Sisawo EJ, Ouédraogo SY, Huang SL. Workplace violence against nurses in the Gambia: mixed methods design. *BMC Health Serv Res.* 2017;17(1):311.
11. Lanctôt N, Guay S. The aftermath of workplace violence among healthcare workers: A systematic literature review of the consequences. *Aggress Violent Behav.* 2014;19(5):492-501.
12. Zafar W, Khan UR, Siddiqui SA, Jamali S, Razzak JA. Workplace violence and self-reported psychological health: coping with post-traumatic stress, mental distress, and burnout among physicians working in the emergency departments compared to other specialties in Pakistan. *J Emerg Med.* 2016;50(1):167-77.
13. Pan SJ, Cheng JM, Bai JG. Research on the causes of shortage of human resources in pediatrics and its countermeasures—a case study of Shanxi province. [J]. *Soft Sci Health.* 2016;30(7):31-4.
14. Pan DL. The dilemma of the children's medical resources shortage to be cracked [J]. *China Health Talent Resour.* 2013;9:17. (in Chinese).
15. Deng YQ, Ma XY, Cheng L. Study on workplace violence of pediatric nurses [J]. *Qilu J Nurs.* 2010;16(16): 51-3 (in Chinese).
16. Gillespie GL, Gates DM, Miller M, Howard PK. Violence against healthcare workers in a pediatric emergency department. *Adv Emerg Nurs J.* 2010;32(1):68-82.
17. Li Z, Yan CM, Shi L, Mu HT, Li X, Li AQ, et al. Workplace violence against medical staff of Chinese children's hospitals: a cross-sectional study. *PloS One.* 2017;12(6):e0179373.
18. Shaw J. Staff perceptions of workplace violence in a pediatric emergency department. *Work.* 2015;51(1):39-49.
19. Strollo BA. Giving Voice: Pediatric Nurses' Perception of Workplace Violence. 2011.
20. Hein PT, Phuc DN, Trang LTT, Quang LN. Workplace Violence against Healthcare Nurses in the Vietnam National Children's Hospital: A Cross-Sectional Study. *J Health Hyg.* 2019;3(1):68-94.
21. Alkorashy HA, Al Moalad FB. Workplace violence against nursing staff in a Saudi university hospital. *Int Nurs Rev.* 2016;63(2):226-32.
22. Pompeii LA, Schoenfisch AL, Lipscomb HJ, Dement JM, Smith CD, Upadhyaya M. Physical assault, physical threat, and verbal abuse perpetrated against hospital workers by patients or visitors in six US hospitals. *Am J Ind Med.* 2015;58(11):1194-204.
23. Kowalenko T, Gates D, Gillespie GL, Succop P, Mentzel TK. Prospective study of violence against ED workers. *Am J Emerg Med.* 2013;31(1):197-205.
24. Chen ZH, Xia HY. Workplace violence against nurses in hospitals in Guangdong, China. *Inj Prev.* 2012;18(Suppl 1):A156-.
25. Talas MS, Kocaöz S, Akgüç S. A survey of violence against staff working in the emergency department in Ankara, Turkey. *Asian Nurs Res.* 2011;5(4):197-203.
26. Mroczek B, Mormul J, Kotwas A, Szkup M, Kurpas D. Patient aggression towards health care professionals. *Prog Health Sci.* 2014;4(2):67-74.
27. Raveesh BN, Lepping P, Lanka SV, Turner J, Krishna M. Patient and visitor violence towards staff on medical and psychiatric wards in India. *Asian J Psychiatr.* 2015;13:52-5.
28. Gomaa AE, Tapp LC, Luckhaupt SE, Vanoli K, Sarmiento RF, Raudabaugh WM, et al. Occupational traumatic injuries among workers in health care facilities—United States, 2012–2014. *MMWR Morb Mortal Wkly Rep.* 2015;64(15):405.
29. Lanza ML, Zeiss RA, Rierdan J. Non-physical violence: a risk factor for physical violence in health care settings. *AAOHN J.* 2006;54(9):397-402.
30. 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(1):51.
31. Abbas MA, Fiala LA, Abdel Rahman AG, Fahim AE. Epidemiology of workplace violence against nursing staff in Ismailia Governorate, Egypt. *J Egypt Public Health Assoc.* 2010;85(1-2):29-43.
32. Liu H, Zhao S, Jiao M, Wang J, Peters DH, Qiao H, et al. Extent, nature, and risk factors of workplace violence in public tertiary hospitals in China: a cross-sectional survey. *Int J Environ Res Public Health.* 2015;12(6):6801-17.
33. Xing K, Jiao M, Ma H, Qiao H, Hao Y, Li Y, et al. Physical violence against general practitioners and nurses in Chinese township hospitals: a cross-sectional survey. *PloS One.* 2015;10(11):e0142954.
34. Tingmei YA, Shuang LI, Guowei PA, Bo QU. Perceived Risk of Violence in Various Hospital Levels and De-partments in Urban and Rural China. *Iran J Public Health.* 2016;45(9):1238-40.

35. Chen WC, Hwu HG, Wang JD. Hospital staff responses to workplace violence in a psychiatric hospital in Taiwan. *Int J Occup Environ Health*. 2009;15(2):173-9.
36. Ferri P, Silvestri M, Artoni C, Di Lorenzo R. Workplace violence in different settings and among various health professionals in an Italian general hospital: a cross-sectional study. *Psychol Res Behav Manag*. 2016;9:263.
37. Fute M, Mengesha ZB, Wakgari N, Tessema GA. High prevalence of workplace violence among nurses working at public health facilities in Southern Ethiopia. *BMC Nurs*. 2015;14(1):9.
38. Park M, Cho SH, Hong HJ. Prevalence and perpetrators of workplace violence by nursing unit and the relationship between violence and the perceived work environment. *J Nurs Scholarsh*. 2015;47(1):87-95.
39. Al-Omari H. Physical and verbal workplace violence against nurses in J ordan. *Int Nurs Rev*. 2015;62(1):111-8.
40. Schablon A, Zeh A, Wendeler D, Peters C, Wohler C, Harling M, et al. Frequency and consequences of violence and aggression towards employees in the German healthcare and welfare system: a cross-sectional study. *BMJ Open*. 2012;2(5):e001420.
41. Hogarth KM, Beattie J, Morphet J. Nurses' attitudes towards the reporting of violence in the emergency department. *Australas Emerg Nurs J*. 2016;19(2):75-81.
42. Gacki-Smith J, Juarez AM, Boyett L, Homeyer C, Robinson L, MacLean SL. Violence against nurses working in US emergency departments. *JONA: J Nurs Admin*. 2009;39(7/8):340-9.
43. Itzhaki M, Peles-Bortz A, Kostitsky H, Barnoy D, Filshinsky V, Bluvstein I. Exposure of mental health nurses to violence associated with job stress, life satisfaction, staff resilience, and post-traumatic growth. *Int J Ment Health Nurs*. 2015;24(5):403-12.
44. Elkhawaga G, El-Gilany AH, Abd-El-Raouf SE. Violence against physicians in Mansoura University Emergency Hospital, Egypt. *Egypt J Community Med*. 2012;30(3).
45. Abdellah RF, Salama KM. Prevalence and risk factors of workplace violence against health care workers in emergency department in Ismailia, Egypt. *Pan Afr Med J*. 2017;26(1):1-8.
46. Pompeii LA, Schoenfisch AL, Lipscomb HJ, Dement JM, Smith CD, Upadhyaya M. Physical assault, physical threat, and verbal abuse perpetrated against hospital workers by patients or visitors in six US hospitals. *Am J Ind Med*. 2015;58(11):1194-204.
47. Hahn S, Müller M, Hantikainen V, Kok G, Dassen T, Halfens RJ. Risk factors associated with patient and visitor violence in general hospitals: Results of a multiple regression analysis. *Int J Nurs Stud*. 2013;50(3):374-85.
48. ALBashtawy M, Aljezawi ME. Emergency nurses' perspective of workplace violence in Jordanian hospitals: A national survey. *Int Emerg Nurs*. 2016;24:61-5.
49. Kitaneh M, Hamdan M. Workplace violence against physicians and nurses in Palestinian public hospitals: a cross-sectional study. *BMC Health Serv Res*. 2012;12(1):1-9.
50. Cashmore AW, Indig D, Hampton SE, Hegney DG, Jalaludin BB. Workplace violence in a large correctional health service in New South Wales, Australia: a retrospective review of incident management records. *BMC Health Serv Res*. 2012;12(1):245.
51. Jiao M, Ning N, Li Y, Gao L, Cui Y, Sun H, et al. Workplace violence against nurses in Chinese hospitals: a cross-sectional survey. *BMJ Open*. 2015;5(3).
52. Lin WQ, Wu J, Yuan LX, Zhang SC, Jing MJ, Zhang HS, et al. Workplace violence and job performance among community healthcare Workers in China: the mediator role of quality of life. *Int J Environ Res Public Health*. 2015;12(11):14872-86.
53. Kowalenko T, Walters BL, Khare RK, Compton S, Michigan College of Emergency Physicians Workplace Violence Task Force. Workplace violence: a survey of emergency physicians in the state of Michigan. *Ann Emerg Med*. 2005;46(2):142-7.
54. Behnam M, Tillotson RD, Davis SM, Hobbs GR. Violence in the emergency department: a national survey of emergency medicine residents and attending physicians. *J Emerg Med*. 2011;40(5):565-79.