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Workplace Violence Against Emergency Versus Non-Emergency Nurses

Naif Abdulaziz Nawi Alonazi[1], Abdullah Hulayyil Shaya Alotaibi[2], Majed Khidhran Kani Almutairi[3], Faisal Matar Olaywi Alghashmari[4], Ahmad Yahya Maqwi Duraib [5], Nashmi Olian Mosallm Almotairi[6], Galib Falih Gazai Alotaibi[7], Abdulaziz Jahz Gufain Almotairi [8]

1-Nursing, Eradah complex in Riyadh
2-Nursing technician, Eradah Complex in Riyadh
3-Nurse technician, Eradah Complex in Riyadh
4-Specialist-Nursing, Eradah Complex in Riyadh
5-Nurse technician, Eradah Complex in Riyadh
6-Nursing, Eradah Complex in Riadh
7-Emergency medical services technician, Eradah Complex in Riyadh
8-Nurse technician, Eradah Complex in Riyadh

Abstract
Workplace violence (WPV) against nurses is a significant yet often overlooked issue . This research aims to estimate the prevalence and identify associated risk factors of various types of violence against nurses , focusing on differences between those working in emergency departments and non-emergency clinics. The study utilizes a cross-sectional comparative design, collecting data through an adapted self-administered questionnaire developed by reputable organizations in the field. Results highlight the circumstances of violence, types of perpetrators involved, and nurses' responses to such incidents. Findings indicate that all types of WPV are prevalent among nurses, with factors like emergency specialty, work shifts, and younger age contributing to higher risk. The study underscores the urgent need for policies and interventions to address and mitigate workplace violence in healthcare settings.

Introduction
Physical violence is a growing concern, particularly in healthcare settings like hospitals. Workplace violence (WPV) encompasses various acts such as physical violence, threats, harassment, intimidation, and disruptive behavior at the workplace (U.S. Department of Agriculture, 1998). This includes both observable physical acts and psychological behaviors, such as bullying, threats, intimidation, and sexual harassment (Di Martino, 2002).
Healthcare settings experience workplace violence at a rate four times higher than other private-sector industries (National Institute for Occupational Safety and Health [NIOSH] & Centers for Disease Control and Prevention [CDC], 2002). Emergency nurses, in particular, face heightened risk of exposure to violence, including threats, physical assaults, and witnessing violence among colleagues or patients (Gerberich et al., 2005; NIOSH & CDC, 2002; Gillespie, 2008).
In recent years, healthcare workers have increasingly become victims of workplace violence, with healthcare personnel accounting for a significant percentage of non-fatal assaults resulting in lost work time (U.S. Bureau of Labor Statistics, 2005). Studies have shown high rates of physical assaults and verbal abuse among nurses (Prost, 2010).
Violent incidents are often perpetrated by patients or emotionally distressed family members, with nurses being at higher risk due to their frequent bedside presence with patients (Lothian, 2007). Despite increased

attention to WPV in developed countries, it remains largely unrecognized in many developing nations (Kamchuchat et al., 2008).

Research on WPV specifically targeting frontline healthcare workers in developing countries, is limited, leaving the true extent of the problem unknown. Therefore, this study aims to estimate the prevalence and identify associated factors of different types of violence against nurses in emergency and non-emergency settings, focusing on the circumstances, perpetrators, and nurses' responses to violence.

Population and Methods

Study Locality:

This study was conducted at the Emergency Hospital and inpatient section of the Internal Medicine Departments .The Emergency Hospital is a tertiary care facility offering free emergency services to the general population, including self-referred patients and those referred from lower levels of healthcare. The hospital operates three days per week (Sunday, Tuesday, and Thursday) and comprises 35 outpatient clinic beds and 129 inpatient beds . Non-emergency nurses included all nurses working in the Internal Medicine Departments

Study Design:

This research employs a cross-sectional comparative study design.

Ethical Consideration:

The study received approval from the hospital director due to the absence of an ethics research committee at the hospital. Nurses provided verbal informed consent.

Data collection took place , using a pre-designed self-administered questionnaire distributed to all nurses working in the emergency hospital for at least one year. Out of 134 questionnaires distributed, 128 were returned (response rate = 95.5%). Additionally, the questionnaire was distributed to 152 nurses in the Internal Medicine departments, with 147 questionnaires returned (response rate = 96.7%).

Given the absence of a suitable instrument specific to workplace violence (WPV) against nurses in Egypt, the questionnaire developed by the International Labor Office, International Council of Nurses, World Health Organization, and Public Services International for WPV in the health sector was adapted for this study. The questionnaire's validity and reliability were previously established in other studies. (El-Gilany, El-Wehady, & Amr, 2010).

The adjusted questionnaire comprised five sections focusing on personal and workplace characteristics, physical violence, verbal violence, bullying/mobbing, and sexual harassment. Questions included inquiries about experiences of violence, responses to incidents, perpetrators, locations, and satisfaction with incident handling. Data regarding nature, frequency, consequences, satisfaction levels, strategies, and policies related to WPV incidents were also collected. Notably, sections on racial harassment and formal violence management policies were excluded from the questionnaire due to cultural and institutional differences.

Data were collected, reviewed, coded, and entered into a computer for analysis. Statistical tests such as unpaired t-tests, chi-square tests, and logistic regression analyses were conducted using SPSS program version 16 to compare and analyze quantitative and qualitative data and predict independent predictors of different types of violence. Adjusted odds ratios (AORs) and their 95% confidence intervals were calculated for statistical inference.

Results

Table 1 displays the socio-demographic and occupational profiles of the study groups, comparing emergency and non-emergency nurses. It shows significant differences between the groups in terms of age, gender, marital status, duration of employment, work time, and number of colleagues.

Table 2 presents data on the worry about and exposure to violence among the study groups. Emergency nurses expressed higher levels of worry about violence compared to non-emergency nurses, and there were significant differences in the types of violence experienced between the two groups.

Logistic regression analysis in Table 3 highlights significant independent predictors of different types of violence among nurses, including specialty, work shift, age, and number of colleagues.

Table 4 outlines the place of violence, perpetrator types, and victims' responses to violent incidents, showing common locations for violence, types of perpetrators, and victim responses.
Table 5 delves into the distress experienced by victims due to violent attacks across different types of violence, highlighting the psychological impact of these incidents.
Lastly, Table 6 presents the suggestions of nurses to prevent and control violence, indicating the preferred strategies according to the study participants.
These findings collectively provide insights into the prevalence, types, predictors, and impacts of violence against nurses in different healthcare settings.

Table 1. Socio-Demographic and Occupational Profiles of the Study Groups

Categories	**Emergency (128), n (%)**	**Non-Emergency (147), n (%)**	**Test of Significance**
Age			
<30	35 (27.3)	79 (53.7)	$\chi2 = 21.1$, $p \leq .001$
30-40	71 (55.5)	46 (31.3)	
>40	22 (17.2)	22 (15.0)	
M ± SD	33.1 ± 6.9	30.7 ± 8.2	$t = 2.6$, $p = .01$
Gender			
Male	13 (10.2)	5 (3.4)	$\chi2 = 5.1$, $p = .024$
Female	115 (89.8)	142 (96.6)	
Marital status			
Single	26 (20.3)	35 (24.1)	$\chi2 = 7.98$, $p = .018$
Married	91 (71.1)	108 (74.5)	
Divorced/widow	11 (8.6)	2 (1.4)	
Duration of employment			
<10	41 (32.0)	83 (57.2)	$\chi2 = 16.5$, $p \leq .001$
≥10	87 (68.0)	64 (43.5)	
M ± SD	12.3 ± 5.96	7.8 ± 3.8	$t = 7.6$, $p \leq .001$
Work time			
Full time	101 (78.9)	79 (53.7)	$\chi2 = 19.2$, $p \leq .001$
Part time	27 (21.1)	68 (46.3)	
Work shift			
Yes	105 (82.0)	127 (86.4)	$\chi2 = 0.99$, $p = .32$
Night shift	98 (76.6)	111 (75.5)	$\chi2 = 0.04$, $p = .8$
Number of colleagues			
Up to 5	56 (43.8)	113 (80.7)	$\chi2 = 39.2$, $p \leq .001$
>5	72 (56.2)	27 (19.3)	

Table 2. Worry About and Exposure to Violence Among the Study Groups

Categories	**Emergency (128), n (%)**	**Non-Emergency (147), n (%)**	**Test of Significance**
Worry about violence			
Absolutely none	11 (8.6)	34 (23.1)	
None	6 (4.7)	50 (34.0)	
Somewhat	15 (11.7)	32 (21.8)	$\chi2 = 97.2$, $p \leq .001$
Worried	26 (20.3)	21 (14.3)	
Very worried	70 (54.7)	10 (6.8)	
Type of violence during past year			

None	18 (14.1)	30 (20.4)	
One type	30 (23.4)	69 (46.9)	
Two types	36 (28.1)	39 (26.5)	$\chi 2 = 40.5$, $p \leq .001$
Three types	31 (24.2)	6 (4.1)	
Four types	13 (10.2)	3 (2.0)	
Past year prevalence of violence			
Physical violencea	62 (48.4)	48 (32.7)	$\chi 2 = 7.1$, $p = .008$
Verbal violence	77 (60.2)	63 (42.9)	$\chi 2 = 8.2$, $p = .004$
Bullying/mobbing	69 (53.9)	49 (33.3)	$\chi 2 = 11.5$, $p = .001$
Sexual harassment	39 (30.5)	16 (11.0)	$\chi 2 = 16.2$, $p \leq .001$
a Beating, pushing, pinching, kicking, biting, and slapping.			

Table 3. Logistic Regression Analysis of Significant Independent Predictors of Different Types of Violence

Categories	**Physical AOR (95% CI)**	**Verbal AOR (95% CI)**	**Bullying/Mobbing AOR (95% CI)**	**Sexual AOR (95% CI)**
Specialty				
Emergency	2.2 [1.3, 3.8]	2.0 [1.2, 3.4]	2.1 [1.3, 3.5]	5.2 [2.4, 11.0]
Non-emergency	r (1)	r (1)	r (1)	r (1)
Work shift				
No	0.2 [0.1, 0.5]	0.5 [0.2, 0.9]		0.3 [0.1, 0.9]
Yes	r (1)	r (1)		r (1)
Age				
<30	1.6 [1.1, 2.7]			1.9 [1.1, 2.6]
30-40	1.5 [1.1, 2.6]			0.5 [0.2, 1.6]
40+	r (1)			r (1)
Number of colleagues				
Up to 5				2.8 [1.3, 6.0]
>5				r (1)
Note. Variables included in the regression models are specialty, age, gender, marital status, duration of employment, nature of work (full time or part time), shift work, night shift, and number of colleagues at the workplace. AOR = adjusted odds ratio; CI = confidence interval; r = reference group.				

Table 4. Place of Violence, Perpetrator, and Response of Victim to Violent Incidents

Categories	Physicala (110), n (%)	Verbal (140), n (%)	Bullying (118), n (%)	Sexual (55), n (%)
Place of event				
Inside hospital	48 (43.6)	91 (65.0)	84 (71.2)	24 (43.6)
Outside hospital	23 (20.9)	38 (27.1)	23 (19.5)	29 (52.7)
Patients' room	39 (35.5)	11 (7.9)	11 (9.3)	2 (3.6)
Perpetratorb				
Patient	22 (20.0)	38 (27.1)	29 (24.6)	17 (30.9)
Relative/visitor	68 (61.8)	89 (63.6)	60 (50.8)	17 (30.9)
Colleagues	5 (4.5)	8 (5.7)	7 (5.9)	20 (36.4)
Manager/supervisor	16 (14.5)	13 (9.3)	23 (19.5)	1 (1.8)
General public	13 (11.8)	34 (24.3)	18 (15.3)	0
Victim's responseb				
No action	79 (71.8)	108 (77.1)	87 (73.7)	27 (49.1)
Pretend it never happened	17 (15.5)	11 (7.9)	28 (23.7)	28 (50.9)
Told the person to stop	21 (19.1)	21 (15.0)	19 (16.1)	21 (38.2)
Tried to defend oneself	32 (29.1)	31 (22.1)	28 (23.7)	1 (1.8)
Told colleague/friends/family	10 (3.6)	2 (1.4)	1 (0.8)	1 (1.8)
Reported it to senior staff	10 (9.1)	20 (14.3)	10 (8.5)	2 (3.6)
Request for vacation/transfer	26 (23.6)	4 (2.9)	—	1 (1.8)
Called hospital security	16 (14.5)	25 (17.9)	19 (16.1)	—
a Seven (6.4%) of the incidents were associated with weapons. Eighteen nurses (16.4%) reported injuries due to physical violence (scratches, wounds, and contusions).				
b Categories are not mutually exclusive.				

Table 5. Victims' Distress Due to Violent Attacks in Different Types of Violence

Categories	Physical Violence (110), n (%)	Verbal Violence (140), n (%)	Bullying/Mobbing (118), n (%)	Sexual Harassment (55), n (%)
Problems and Complaints				
Repeated distributed memories, thoughts, or image of the attack				
Not at all	5 (4.5)	12 (8.6)	7 (19.5)	4 (7.3)
A little bit	17 (15.5)	9 (6.4)	16 (13.6)	1 (1.8)
Moderately	15 (13.6)	33 (23.6)	25 (21.2)	11 (20.0)
Quite a bit	32 (29.1)	31 (22.1)	23 (19.5)	19 (34.5)
Extremely	41 (37.3)	55 (39.3)	47 (39.8)	20 (36.4)
Avoid thinking about or talking about the attack or avoiding having feelings related to it				
Not at all	12 (10.9)	7 (5.0)	6 (5.1)	0

A little bit	8 (7.3)	27 (19.3)	9 (7.6)	1 (1.8)
Moderately	18 (16.4)	25 (17.9)	24 (20.3)	4 (7.3)
Quite a bit	22 (20.0)	39 (27.9)	23 (19.5)	12 (21.8)
Extremely	50 (45.5)	42 (30.0)	56 (47.5)	38 (69.1)
Being super-alert or watchful and on guard				
Not at all	8 (7.3)	21 (15.0)	11 (9.3)	0
A little bit	19 (17.3)	14 (10.0)	5 (4.2)	1 (1.8)
Moderately	22 (20.0)	27 (19.3)	28 (23.7)	1 (1.8)
Quite a bit	24 (21.8)	34 (24.3)	26 (22.0)	22 (10.0)
Extremely	37 (33.6)	44 (31.4)	48 (40.7)	31 (56.4)
Feeling like everything I did was an effort				
Not at all	20 (18.2)	9 (6.4)	20 (16.9)	0
A little bit	9 (8.2)	28 (20.0)	9 (7.6)	2 (3.6)
Moderately	22 (20.0)	33 (23.0)	29 (24.6)	13 (23.6)
Quite a bit	23 (20.9)	39 (27.9)	34 (28.8)	18 (32.7)
Extremely	36 (32.7)	31 (22.1)	26 (22.0)	22 (40.0)

Table 6. Suggestions of Nurses to Prevent and Control Violence

Categories	**n (%)**
Availability of security personnel	264 (96.0)
Liaison with police	203 (73.8)
Penalty for perpetrators	116 (42.2)
Training on violence prevention and control	159 (57.8)
Administrative measures	221 (80.4)
Policy for care for victims	109 (39.6)
Changing work environment and flow	68 (24.7)
Hot line for immediate reporting of events	164 (59.6)
Debriefing sessions for victims	74 (26.9)
Media campaigns against violence	135 (49.1)

Discussion

Nurses are known to be at a high risk of workplace violence (WPV) compared to other healthcare providers (Kingma, 2001; Nachreiner, Gerberich, Ryan, & McGovern, 2007; Buchan, Kingma, & Lorenzo, 2005). Our study focused on the prevalence and characteristics of WPV among nurses, considering factors such as gender, work shifts, and experience. We found that a significant majority of respondents were females, and most of them worked shifts. Emergency nurses, in particular, had longer employment durations compared to non-emergency nurses, which is consistent with findings from other studies (Gacki-Smith et al., 2009).

The literature extensively documents the high incidence of WPV in emergency departments (EDs) (Çelik, Çelik, Agırbas, & Ugurluog, 2007; Crilly, Chaboyer, & Creedy, 2004; Ergün & Karadakovan, 2005; Erickson, Williams-Evans, & Tenn, 2000; Lyneham, 2000; Stirling, Higgins, & Cooke, 2001). In our study, we observed that verbal violence was the most prevalent type of WPV, followed by physical violence and sexual harassment. This aligns with similar findings in other settings, such as the high prevalence of verbal abuse reported among nurses in Iran and Turkey (Esmaeilpour et al., 2011; Ergün & Karadakovan, 2005).

Regarding the perpetrators of WPV, our study and previous research indicate that relatives/visitors of patients are often the main source of physical and verbal violence, while colleagues may also contribute to instances of sexual harassment (Kwok et al., 2006). Nurses' responses to WPV incidents varied, with a significant proportion choosing not to take any action or pretending that the incident never happened. This coping mechanism was also noted in studies conducted in Hong Kong (Kwok et al., 2006).

Our logistic regression analysis revealed that certain factors such as emergency specialty, work shifts, younger age, and number of colleagues significantly predicted different types of violence experienced by nurses. This finding is consistent with studies showing associations between age, experience, and the frequency of WPV among healthcare professionals (Ergün & Karadakovan, 2005).

The impact of WPV on nurses' well-being was evident in our study, with physical violence and sexual harassment causing extreme distress, including repeated disturbing memories, avoidance behaviors, hypervigilance, and feelings of effortfulness in daily tasks. Similar distress patterns were reported among nurses in Iran, highlighting the profound psychological effects of WPV on healthcare professionals (Esmaeilpour et al., 2011).

In conclusion, our study adds to the growing body of literature on WPV among nurses, emphasizing the need for targeted interventions, supportive policies, and increased awareness to mitigate the risks and consequences of WPV in healthcare settings.

Conclusion

Workplace violence (WPV) remains a significant challenge in emergency departments (EDs), impacting nurses' safety, job satisfaction, work performance, and the quality of patient care during critical situations. Understanding the prevalence and risk factors associated with WPV is crucial for developing effective prevention and response strategies. Educational initiatives aimed at preparing nurses for potential violent incidents, along with enhanced safety measures and legal enforcement, can help reduce WPV in EDs and create a safer work environment.

References

1. Buchan, J., Kingma, M., & Lorenzo, F. M. (2005). International migration of nurses: Trends and policy implications. International Council of Nurses. Cited in Esmaeilpour, M., Salsali, M., & Ahmadi, F. (2011). Workplace violence against Iranian nurses working in emergency departments. International Nursing Review, 58, 130-137.
2. Çelik, S. S., Çelik, Y., Agırbas, I., & Ugurluog, Ö. (2007). Verbal and physical abuse against nurses in Turkey. International Nursing Review, 54, 359-366.
3. Crilly, J., Chaboyer, W., & Creedy, D. (2004). Violence toward emergency department nurses by patients. Accident and Emergency Nursing, 12, 67-73.
4. Duhart, D. T. (2001). Violence in the workplace, 1993-1999 (Publication No. NCJ-190076). Washington, DC: Bureau of Justice Statistics. Retrieved from http://bjs.gov/content/pub/pdf/vw99.pdf
5. Ergün, F. S., & Karadakovan, A. (2005). Violence towards nursing staff in emergency departments in one Turkish city. International Nursing Review, 52, 154-160.
6. Esmaeilpour, M., Salsali, M., & Ahmadi, F. (2011). Workplace violence against Iranian nurses working in emergency departments. International Nursing Review, 58, 130-137.
7. Gacki-Smith, J., Juarez, A. M., Boyett, L., Homeyer, C., Robinson, L., & MacLean, S. L. (2009). Violence against nurses working in US emergency departments. The Journal of Nursing Administration, 39, 340-349.
8. Gerberich, S. G., Church, T. R., McGovern, P. M., Hansen, H. D., Nachreiner, N. M., Geissner, M. S., ... Jurek, A. (2005). Risk factors for work-related assaults on nurses. Epidemiology, 16, 704-709.
9. Kamchuchat, C., Chongsuvivatwong, V., Oncheunjit, S., Yip, T. W., & Sangthong, R. (2008). Workplace violence directed at nursing staff at a general hospital in Southern Thailand. Journal of Occupational Health, 50, 201-207.
10. Kingma, M. (2001). Workplace violence in the health sector: A problem of epidemic proportion. International Nursing Review, 48, 129-130.
11. Kwok, R. P., Law, Y. K., Li, K. E., Ng, Y. C., Cheung, M. H., Fung, V. K., ... Yen, P. F. (2006). Prevalence of workplace violence against nurses in Hong Kong. Hong Kong Medical Journal, 12, 6-9.
12. Landau, S. F., & Bendalak, Y. (2008). Personnel exposure to violence in hospital emergency wards: A routine activity approach. Aggressive Behavior, 34, 88-103.
13. Lyneham, J. (2000). Violence in New South Wales emergency departments. Australian Journal of Advanced Nursing, 18(2), 8-17.
14. Nachreiner, N. M., Gerberich, S. G., Ryan, A. D., & McGovern, P. M. (2007). Minnesota nurses' study: Perception of violence and the work environment. Industrial Health, 45, 672-678.

15. Stirling, G., Higgins, J. E., & Cooke, M. V. (2001). Violence in A&E departments: A systematic review of the literature. Accident and Emergency Nursing, 9, 77-85.