# **RESEARCH ARTICLE**

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# An explorative study of workplace violence against nurses who care for older people

Mamdouh El-Hneiti<sup>1</sup> | Abeer M. Shaheen<sup>1</sup> | Ayman Bani Salameh<sup>2</sup> | Rami Mohammad Al-dweeri<sup>3</sup> | Mahmoud Al-Hussami<sup>1</sup> | Fathi Tawfiq Alfaouri<sup>4</sup> | Muayyad Ahmad<sup>1</sup>

<sup>1</sup>School of Nursing, The University of Jordan, Amman, Jordan

<sup>2</sup>School of Nursing, Al-Zaytoonah University, Amman, Jordan

<sup>3</sup>Business School, The University of Jordan, Amman, Jordan

<sup>4</sup>Faculty of Law, University of Petra, Amman, Jordan

#### Correspondence

Mamdouh El-Hneiti, School of Nursing, The University of Jordan, Amman, Jordan. Email: m.elhneiti@ju.edu.jo

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# Abstract

**Aim:** To explore the prevalence of workplace violence among nurses who care for older people and its association with working stress, job satisfaction and quality of care in Jordan.

Design: A cross-sectional design was used.

**Methods:** A cluster random sampling was used to select three public hospitals, three private hospitals and 17 healthcare centres in Amman, Jordan. The researcher used a convenience sampling method to select 485 nurses. Data were collected between 2015–2016.

**Results:** Almost 60% of the participants have been victims of violence at the workplace during the past year. Nurses who consider violence a problem at work have high levels of working stress (p < .01) as well as lower levels of quality of care (p < .01) and job satisfaction (p < .001).

#### KEYWORDS

care of older people, job satisfaction, Jordan, nurses, quality of care, working violence and work stress

# 1 | INTRODUCTION

Violence against healthcare providers has become an important issue globally as it affects the quality of care provided to patients. The World Health Organization (WHO) (2018) acknowledges that health workers operate at a high risk of violence all over the world, with between 8%–38% exposed to physical violence at some point during their careers. Many healthcare workers are also threatened or exposed to verbal violence, largely from patients and visitors (Shi et al., 2017), as well as colleagues (Farrell & Shafiei, 2012).

Nurses are exposed to violence and bullying in different areas of clinical practice, including those who care for older patients. As the number of older people is increasing all over the world, many nurses encounter particular challenges, including difficult situations whereby patients or patients' relatives commit violence against them, especially where they are perceived as failing to meet their needs. Such violence has been reported in both developed (Kvas & Seljak, 2015) and developing countries (Teymourzadeh, Rashidian, Arab, Akbari-Sari, & Hakimzadeh, 2014).

In the Middle East, the incidence of violence was reported against nurses. Esmaeilpor, Salsali, and Ahmadi (2011), for instance, conducted their study on 196 Registered Nurses working in 11 emergency departments of teaching hospitals in Tehran, Iran. Their study reported that almost 20% of their nurses' sample have been exposed to physical violence with over 90% of the sample experiencing verbal violence during the past year. Their study

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also reported that the most common sources of violence were patients' relatives. Another descriptive study collected data from 174 Jordanian nurses working in emergence departments found high rate violence against nurses (verbal 95.3% vs. physical 23.3%) with the most common sources of violence were crowding and workload (75.9%) and the least common was care of patients with dementia or Alzheimer's disease (35.6%) (Darawad, Al-Hussami, Saleh, Mustafa, & Odeh, 2015). It is worth notice that the above studies were conducted in the emergency departments with no studies being conducted in other settings (e.g., elderly care centres).

#### 2 BACKGROUND

Most studies that have raised the issue of violence and bullying against nurses have paid particular attention to nurses working in emergency, acute and psychiatrics areas (Shi et al., 2017; Vzez, Josephson, Vingard, & Voss, 2014), whereas few studies have focused on nurses who provide care for older patients.

With regard to the prevalence of violence, Shi et al. (2017) has reported that the prevalence of violence against Chinese nurses working in general hospitals was 65.8%, including verbal violence (64.9%) physical violence (11.8%) and sexual harassment (3.9%). Shi adds that most violence occurred in emergency and paediatric departments. Another study conducted by Kerr, Oram, Tinson, and Shum (2017) surveyed the prevalence of violence by patients against Australian nurses employed in brain injury wards, with 98% of participants experiencing violence during their healthcare careers, an average of 143.93 events. Physical injuries were reported by 40% of nurses, with psychological violence accounting for 82%. Cheung and Yip (2017) surveyed the prevalence of violence against 850 nurses and reported that 44.6% had experienced violence. This study found that the most common forms of workplace violence comprised verbal abuse/bullying (39.2%), physical assault (22.7%) and sexual harassment (1.1%).

Other studies have focused on the sources of violence against nurses, the most common of which comprise patients or patients' relatives (Farrell & Shafiei, 2012). Other sources of violence include nurses' colleagues (Cheung, Lee, & Yip, 2017). Farrell and Shafiei (2012) explored the sources of violence against a random sample of Australian nurses and midwives (N = 1,495) and found that 36% of the nurses experienced violence largely from patients or their visitors/relatives and 32% experienced violence mostly from colleagues or from their managers or supervisors. The handling of incidents by the organization was considered a significant influencing factor. Similarly, Cheung and Yip (2017) found that the most common perpetrators of working violence against nurses were patients (36.6%) and their relatives (17.5%), followed by colleagues (7.7%) and supervisors (6.3%). This study reported significant correlations between working violence with clinical position, shift work, job satisfaction and symptoms of anxiety. With regard to the gender of nurses and working violence, Cheung and Yip (2017) found that male nurses reported more workplace violence than their female counterparts.

Other studies have focused on the risk factors of violence. Xing et al. (2016) reported that the most common type of violence was verbal abuse (46.0%). They found that almost 85% of the nurses experienced some degree of stress as a result of violence. Furthermore, their study identifies risk factors in Chinese township hospitals, with greater nurse age, lower educational level, inferior work experience and working night shifts all more probably to instigate the fear of workplace violence. Violence in the workplace was also related to organizational efficiency, as additionally reported in an Australian study (Demir & Rodwell, 2012), which found that nurses exposed to violence were more probably to receive poor levels of supervisor support, co-worker support and organizational commitment, with no significant relationship being found between violence and job satisfaction.

Few studies have explored the prevalence and sources of violence against nurses who care for older people. Thus, identification of the predictors of violence against nurses in Jordan is crucial to improving the quality of care provided for older people.

The aim of the study was to explore the prevalence of workplace violence against nurses who care for older people and its association with working stress, job satisfaction and quality of care in Jordan. The study objectives were as follows:

- Explore the prevalence of workplace violence against nurses who care for older people in Jordan.
- Explore the most common sources of workplace violence against nurses in elderly care settings in Jordan.
- Explore the relationship between workplace violence against nurses with levels of stress, job satisfaction and quality of care in Jordan.

#### 3 | **STUDY DESIGN**

A correlational cross-sectional survey was used for the current study.

# 4 | STUDY METHOD

# 4.1 | Sites and settings

The healthcare system in Jordan includes two core sectors: public and private. Both sectors consist of 106 hospitals, providing 12,081 beds. The public sector is considered the larger sector (67%). Primary healthcare centres provide vaccination, maternity and childcare and chronic disease management services.

The study was conducted in Amman, the country's capital city. Most healthcare centres and hospitals are located in Amman, as well as over half of the Jordanian population (Department of Statistics, 2018).

#### 4.2 | Population

The Jordanian population was estimated at 10 million in 2017, with almost 400,000 aged above 65 years (Department of Statistics, 2018). Home services do not exist in Jordan. Special clinics for older

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care services also do not exist here, so older patients usually receive their care in acute care institutions for long periods depending on their cases. There are limited numbers of elderly care centres in Jordan, in fact older people typically obtain healthcare services in healthcare centres and general hospitals (Department of Social Development, 2018). Thus, the study population comprised nurses who provide care to old people admitted to acute care settings and healthcare centres. The inclusion criteria comprised being a registered staff nurse working with older clients.

There is a total of 9,821 nurses working in Jordan (i.e., 6,202 Registered Nurses, 1,612 midwives, 1,731 assistant nurses and 276 nursing aid) (Ministry of Health, 2018).

# 4.3 | Sample and sampling method

Proportionate cluster random sampling was used to select private hospitals in the capital city; simple random sampling was used to select the primary healthcare centres. Convenience sampling method was employed to recruit nurses from the study settings. Sample size was calculated by a statistician using the G power programme. Using  $\alpha$  level of .05, an effect size of 0.2 (low medium) and power of 0.8, a minimum of 369 nurses were required for the current study.

# 4.4 | At the organizational level

# 4.4.1 | Hospitals

The private sector consists of 31 hospitals. Cluster random sampling was, thus, chosen as a method to select the hospitals from the private sector. This method was not appropriate to use in the public sector due to the small number of hospitals (N = 3 hospitals) (Ministry of Health, 2013). All three public hospitals were thus included in the study.

#### 4.4.2 | Primary healthcare centres

A total of 63 primary healthcare centres are located in Amman (Ministry of Health, 2013). Given this large number of primary healthcare centres, cluster random sampling was used to include the primary healthcare centres. Computer random sampling was used to include the needed number of primary healthcare centres (*N* = 19).

# 4.5 | At the individual respondent level

A convenience sampling technique was used to select the study sample from the included hospitals and primary healthcare centres. Participants were selected based on their accessibility (hence convenience) and proximity to the research.

# 4.6 | Data collection procedure

The data collection takes place in three public hospitals, three private hospitals (i.e., medical and surgical wards and outpatient

departments) and 19 primary healthcare centres. The data collection process required over six-and-a-half months (September 2015– January 2016). Two research assistants collected the data. The primary researcher considered some skills (e.g., experience, professionalism and good communication) when recruiting data collectors, as recommended by Polit and Beck (2008). Prior to data collection, the primary researcher met with the data collectors to explain the purpose of the study and the process of data collection, as well as to ensure consistency in the distribution and collection of the questionnaires. The eligible participants were invited to take part in the study and were provided with participant information sheets. Those who agreed to participate in the study were asked to complete the questionnaires.

Data were collected by first gaining access via the nursing directors and the head nurse of each targeted unit or department (i.e., medical and surgical wards and outpatient departments). The head nurses notified all nurses who care for older people in each target department or unit about the study. The participant information sheets and the questionnaires were distributed by the head nurses. The completed questionnaires were placed in an envelope, which was made available in a special drawer located in the head nurse's office. The data collectors then returned after 5 days to collect them.

The data collectors visited each targeted primary healthcare centre and explained the purpose of the study, before disseminating the information sheets and questionnaires to the nurses who cared for older people in each primary healthcare centre.

## 4.7 | Data collection measurements

Data were collected using the self-report questionnaire. This study used the Quality-Work-Competence (QWC) questionnaire (Arnetz, 1997) to measure the Registered Nurses' work strain, organizational climate, competence and development in elderly care settings. The Nurses' Working Life Questionnaire (Lu, While, & Barriball, 2007) was used to measure the nurses' working stress and satisfaction in elderly care settings.

#### 4.7.1 | Demographic variables

Demographic data including gender, age, years of experience, educational level and healthcare sector were obtained using the demographic sheet developed by the primary researcher.

# 4.7.2 | Work strain

The QWC questionnaire (Arnetz, 1997) was used to measure the Registered Nurses' work strain. The work strain subscale measures both emotional and physical strain using 15 items (15–150). Staff were asked to rate emotional strain for eight aspects of their work (e.g., if the nurse worked with patients with dementia, contact with patients' family) and physical strain for seven aspects (e.g., helping patients in and out of bed, assisting patients in the bathroom). Each of these items was rated on a modified visual analogue scale from

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1, "not at all strenuous," to 10, "very strenuous." Respondents could also answer "not applicable." The reliability of the emotional strain subscale and physical strain subscale in this study was .93 and .95, respectively.

## 4.7.3 | Work stress

The Nurses' Working Life Questionnaire (Lu et al., 2007) was used to measure the nurses' work stress. Nurses' Occupational Stress Scale is a five-point Likert type scale (1 = no pressure, 5 = extreme pressure) with 24 items (24–120). This subscale included items relating to time pressure and deadlines, fluctuation in workloads and coping with new technology. The Cronpach's alpha was .92 in a previous study (Lu et al., 2007). The reliability of the scale in this study was .92.

# 4.7.4 | Job satisfaction

Job satisfaction was measured using the Nurses' Working Life Questionnaire (Lu et al., 2007). The subscale is a five-point Likert (1 = very dissatisfied, 5 = very satisfied) with 15 items. The coefficient alpha was .89 in a previous study (Lu et al., 2007). The reliability of the scale in this study was .88.

# 4.7.5 | Quality of care

Participants were asked to rate the overall quality of care received by older people at their workplace. The nurses' rating was measured using a visual analogue scale from 1, "very negative" to 10, "very positive."

# 4.7.6 | Threats, violence and bullying

The QWC questionnaire (Arnetz, 1997) was used to measure the Registered Nurses' workplace violence. The participants were asked three questions regarding violence in the workplace. The first question asked whether nurses have been a victim of violence in the past year, with answers of "no," "yes, one time" or "yes, several times." The second question focused on the sources of violence, with answers constituting "patient/relative family," "staff" or "other." In the third question, nurses were asked if they personally consider violence a problem at work, with answers of "yes, definitely," "yes, somewhat" or "no, not at all."

#### 4.8 | Validity, reliability and rigour

This study was conducted in governmental and private hospitals as well as in community settings (primary healthcare centres), all located in Amman. Recruiting samples from hospitals and primary healthcare centres located in Amman would increase the representation of all healthcare sectors in Jordan.

The QWC questionnaire (Arnetz, 1997) has been widely used in the literature for nurses, with high levels of validity and reliability (Arnetz & Hasson, 2007). The Nurses' Working Life Questionnaire (Lu et al., 2007) has also been used for nurses, reporting high degrees of validity and reliability. For example, its coefficient alpha was .85-.88 and its test-retest correlation coefficient was .63 for the 6month period (Warr, Cook, & Wall, 1979).

A permission from the original authors was obtained for using and translating the instrument. The study questionnaire was then translated from English to Arabic. To ensure the translation's accuracy, the study instrument was translated using the backward translation procedure recommended by Brislin (1970), where the original language of the study instrument was translated into Arabic (for the target sample) and then translated back into English (Polit & Beck, 2008) by two bilingual Jordanian translators with backgrounds in nursing. No transcultural adaptation was needed. The Arabic version of the study instrument was then distributed to a convenience sample of nurses (N = 5) admitted to one public hospital to assess the clarity of the instrument items. The nurses' feedback was positive as they stated that the instrument items were clear. Each questionnaire took an average of 10–15 min to complete.

# 4.9 | Analyses

Data were analysed by a statistician using the Statistical Package for Social Science (SPSS) version 21 (IBM Corporation, 2012). The primary researcher checked the data entry. Total scores were obtained for all subscales. The primary researcher and the statistician were the only people able to access the data set. Descriptive statistics including mean, range, percentage and standard deviation were calculated to describe the demographic characteristics of the sample. Moreover, nursing staff's competence, development, quality of care, violence, bullying, job satisfaction, organizational climate and working stress and strain, as well as nurses' experiences of violence, bullying and aggression in relation to elderly care were all analysed. The means were calculated to describe sample age, years of experience and educational level. Descriptive statistics were used to present the lowest and highest sources of strain and stress among participants. Type I error (false positive) was avoided by setting the significance level at less than 5% (p < .05). Type II error (false negative) occurs when the study fails to detect any real statistically significant differences, typically where the sample size is small (LoBiondo-Wood & Haber, 2010). This error was avoided by increasing the statistical power and recruiting a large sample size (N = 500).

The correlation analyses was used to test the relationships between nurses' experiences of violence, bullying and aggression with the participants' characteristics, quality of care, job satisfaction and working stress.

#### 4.10 | Ethics

Institutional review board (IRB) approval (4/1/2016) was obtained from the research committee at the Faculty of Nursing, the University of Jordan. The primary researcher subsequently obtained ethical approval from each setting included in the current study.

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Each nurse who participated in the study signed informed consent. The confidentiality of the participants was ensured during and after the study's completion. Data were secured and saved on the primary researcher's password-protected computer. Moreover, the questionnaires were coded by numbers and no one except the primary researcher has access to it.

No potential adverse effects, hazards or risks to the safety of the participants involved were anticipated. The data collectors approached the nurses either personally or via their head nurses and encouraged them to contact the researcher to discuss any concerns; no participants contacted the researcher. The participants were asked to tick a box in the questionnaire to agree for their information to be processed for the purpose of the study in accordance with the Data Protection Act 1998. Only the statistician and the researcher had access to anonymous data.

# 5 | RESULTS

Table 1 presents the participating nurses' characteristics. The gender of the participants was almost the same. The average age of the nurses was about 28 years, possessing an average of almost 6 years of experience. Most nurses hold BSc degree (94%), with only 6% holding higher degrees. About 90% of the participants were working in hospitals and the remainder in health centres.

Almost 60% of the participants reported being victims of violence or facing threats of violence in the workplace during the past year. The most aggressive acts against nurses came from visitors and the relatives of patients (37.4%). Most (94%) of the participants consider violence and threats a problem in the workplace. Around half of the participants claim that bullying is present at work (Table 2).

Nurses who considered violence and the threat of violence a problem at work experienced higher levels of physical and psychological strain and working stress, as well as lower levels of quality of care and satisfaction. Nurses who have been victims of violence or threatened with violence at work had less satisfaction, a higher

# **TABLE 1** Sample description (*N* = 500)

Characteristics	Mean (SD)	N	%
Age	28.29 (4.19)		
Experience	5.94 (3.91)		
Education			
BSc	471 (94.2)		
Master	29 (5.8)		
Gender			
Male		252	50.4
Female		248	49.6
Type of health facility			
Private hospital		252	50.4
Governmental hospital		201	40.2
Health centre		47	9.4

quality of care and greater competence and organizational efficiency. The correlation of threats, violence and bullying at elderly care settings with the study variables are presented in Table 3.

As presented in Table 4, the independent sample *t* test demonstrated that nurses have better mental health (t = -3.47, p < .001) and organizational leadership (t = -4.78, p < .001) when no bullying exists in the workplace. No significant differences were found with the other variables in the study. When the statistical program calculates the *t* test value, it will be negative because group 1 is smaller than group 2 mean; this answer is applicable also to all negative *t* test values.

# 6 | DISCUSSION

One of the study's objectives was to explore the prevalence of workplace violence against nurses who care for older people in Jordan. It is worth notice that the results of many workplace violence studies against nurses, are not comparable, because the period past work of career and so the collection tools maybe differ. The current study found that almost 60% of the participants have been victims of violence or threatened with violence in the workplace during the past year. This finding is similar to other studies, such as Shi et al. (2017) who reported that the prevalence of violence against Chinese nurses working in general hospitals was 65.8%. The findings are also similar to those of Cheung and Yip (2017), who reported that nearly half of the nurses surveyed experienced violence in the workplace. However, Kerr et al.'s (2017) study reported even greater violence against nurses (98%) in the workplace. This may be related to the speciality of nurses (i.e., brain injury wards) recruited in their study, as such individuals may be exposed to violence from patients who have cognitive impairments and therefore find it more difficult to control their behaviours or communication patterns with nurses. Thus, it is crucial for healthcare employers and the Ministry of Health to apply the Jordanian Penal Code to protect their employees from committing violence. For example, the Jordanian legislator deals with violence against healthcare professionals in public and private hospitals where "whoever has resisted an employee or a worker with violence at workplace shall be punished by imprisonment for a period not less than 1 year if armed and not less than six months if he is disarmed" (Article 185 of the Jordanian Law).

Furthermore, the current study found that most violence acts against nurses came from the visitors and relatives of patients (37.4%). Cheung et al.'s (2017) have added that nurses' colleagues and supervisors would also commit violence. The current study finding could be explained by factors including the high workload experienced by nurses in the Jordanian healthcare system, as only three public hospitals exist in Amman that provide healthcare services for more than half of the Jordanian population (Department of Statistics, 2018). This high workload may render nurses unable to meet patients' needs, resulting in violence. This explanation can be supported by Darawad et al.'s (2015) study, where 75.9% of the sample highlighted that the most common causes of workplace violence

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Questions	Responses	N	%
Have you been a victim of violence or threats of violence at work in the past year?	No	204	40.8
	Yes, one time	192	38.4
	Yes, several times	104	20.8
Who was aggressive toward you?	None	207	41.4
	Patients	75	15.0
	Another employee	31	6.2
	Relatives of patients and visitors	187	37.4
Do you personally consider violence and threat of violence a problem at your work?	No, not at all	31	6.2
	Yes, somewhat	215	43.0
	Yes, definitely	254	50.8
Is there bullying at your workplace?	No	241	48.2
	Yes	259	51.8
Have you personally been bullied at work?	No	256	51.2
	yes	244	48.8

**TABLE 2** Nurses (responses/ assessment/perception) to violence, bullying, aggression acts at work place

<b>TABLE 3</b> Correlation of threat, violence and bullying with the study variables ( <i>N</i> =
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Variables	Have you been a victim of violence or threats of violence at work in the past year?	Do you personally consider violence and threats of violence a problem at work?	Is there bullying at your workplace?
Gender (1 = M, 2 = F)	046	.064	.044
Years of experience	.006	.054	.034
Satisfaction	154***	166***	178***
Quality of care	116**	220***	012
Competence	.200***	.297***	.177***
Physical strain	015	.37***	022
Psychological strain	038	.294***	.015
Occupational stress	.004	.334***	015
Work stress	115*	115*	025
Organizational efficiency	.153***	.183***	.128***

<sup>\*</sup>p < .05,

\*\*p < .01,

\*\*\*p < .001.

against nurses constituted crowding and workload. Another reason for workplace violence against nurses could be related to the wait time, as suggested by 99% of Fafliora et al.'s (2015) sample. However, no studies in other nations have focused on the sources of violence against nurses who care for older people. Thus, further studies are required.

With regard to the association of violence at workplace with factors including nurses' levels of stress, quality of care and job satisfaction, this study found that nurses who experienced violence in the workplace reported high levels of working stress. This finding is similar to that of Jaradat, Nielsen, Kristensen, and Bast-Pettersen (2017), who found that nurses exposed to workplace violence reported significantly greater stress than those who did not have such an experience. Accordingly, Sa and Fleming (2008) found that nurses who experienced violence reported significantly higher levels of emotional exhaustion and lower levels of mental health than those unexposed to violence. This stress could negatively affect the quality of care provided to older people, as the current study findings confirm that nurses' quality of care is more probably to diminish when nurses are exposed to violence. This finding is congruent with Purpora, Blegen, and Stotts (2015) recognition that violence reduces the quality of care. Thus, the workplace violence experienced by nurses in elderly care settings should be measured to augment the quality of care provided to these patients.

Furthermore, the current study identifies a negative association between nurses' exposure to violence and job satisfaction. This finding accords with previous research studies (Budin, Brewer, Chao, & Kovner, 2013; Munoz, Zaragoza, Ruiz Hernandez, & Jimenez-Barbero, 2018; Purpora & Blegen, 2015; Zhao et al., 2018). For instance, Purpora and Belgen (2015) identified a statistically significant negative relationship between workplace violence and job satisfaction. Similarly, Munoz et al. (2018) assessed the relationship between job satisfaction

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**TABLE 4** Comparison of working conditions for nurses based on the bullying status (N = 500)

Variable	Bullied No = 256 Yes = 244	Mean	Standard Deviation	t-Statistics	p Value
Mental health	No	12.96	2.89	-3.47	.001
	Yes	13.84	2.74		
Organizational leadership	No	12.74	3.40	-4.76	<.001
	Yes	14.02	2.55		
Quality of care	No	6.32	1.89	0.54	.589
	Yes	6.21	2.35		
Psychological strain	No	45.96	15.48	-1.69	.091
	Yes	48.22	14.23		
Occupational stress	No	73.10	14.30	-0.33	.740
	Yes	73.52	13.84		
Work stress	No	8.32	2.50	1.75	.081
	Yes	7.95	2.12		
Work climate	No	6.45	1.88	1.74	.083
	Yes	6.18	1.46		
Health exhaustion	No	8.98	2.78	-0.03	.967
	Yes	8.99	2.69		
Organization efficiency	No	10.44	3.76	-0.24	.811
	Yes	10.52	3.24		
Organization performance	No	7.27	2.28	0.84	.402
	Yes	7.10	2.18		

scores with workplace violence using a large Spanish sample of 1,489 nurses and found a lower score of job satisfaction among those exposed to violence. Thus, to increase the job satisfaction of nurses who care for older people, healthcare employers should consider training skills (e.g., posteducational training) so that nurses can effectively negotiate patients and relatives who might act with violence.

# 6.1 | Limitations

It is important to acknowledge the limitations of the current study. For instance, personal bias in the self-reporting method may have affected the results of this study. Indeed, an issue associated with a self-reporting method is that respondents may not answer truthfully due to an inability to recall or a desire to exaggerate issues. Nevertheless, it is important to consider nurses' responses regarding workplace violence as a starting point for further research. In addition, this approach was effective in enabling the study to meet its aim and objectives. Using this approach allows nurses to cooperate with the research by completing the questionnaires in their own time. Bowling (2002) has suggested that the best means of selecting a method of data collection in research is to consider the population in question; nurses are more probably to cooperate with the self-reporting method because they can experience large workloads in clinical settings. It was not possible to conduct a random sampling method to recruit nurses as the researcher did not have access to nurses who care for older people. Thus, a convenience sampling

technique was used for the current study. The study participants were recruited from Amman (i.e., one site), potentially affecting the generalizability of the current study findings, although this city does include most hospitals and healthcare centres in the country.

# 7 | CONCLUSION

- The current study added to the existing knowledge that those nurses who have been victims of violence are more probably to report high levels of working stress and lower levels of quality of care and job satisfaction.
- Healthcare employers, professional bodies and policymakers need to support nurses with postqualification training in how best to control agitated patients and relatives who might use violence. This would help increase nurses' job satisfaction and enhance the quality of care provided to older people.
- Further research studies using observational methods (for instance) need to be conducted to confirm this investigation's findings and explore the factors that increase the potential for violence at the workplace.
- Unstructured interviews with older patients and relatives should be conducted to ascertain their perspectives regarding violence against nurses and the strategies nurses should use to control agitated patients and relatives.

• It is crucial to apply the law in hospitals and healthcare centres to protect nurses from both physical and psychological violence.

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## CONFLICT OF INTEREST

All authors are aware of the "Journal of Open Nursing" conflict of interest policy and are in compliance with this policy. There is no conflict of interest related to this research.

## ETHICAL APPROVAL

This study was approved by ethics committees [IRBs] in Jordan and the University of Jordan.

#### ORCID

Mamdouh El-Hneiti D https://orcid.org/0000-0002-3665-6277 Mahmoud Al-Hussami D https://orcid.org/0000-0002-4947-8887

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