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The Correlation Between Nurses' Workplace Violence with Quality of Nursing Care at Intensive Care Units

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ABSTRACT

Personnel in the health care system always suffer from a combination of terrifying or real physical attacks and verbal aggression when they are involved in hard work and emergency tasks. The aim of the study was to assess the nurse's workplace violence with the quality of nursing care in intensive care units (ICUs) in Iran. In this Descriptive-correlational study, 120 nurses working at general ICUs in six public teaching hospitals in Tehran completed a survey from 22 December to 29 February 2021. The research team gathered Data through demographic surveying, a modified workplace violence questionnaire adopted from the World Health Organization's (WHO's) questionnaire on workplace violence, and the Quality Patient Care Scale (QUALPAC). Of all participants, 80 were females, of which 66.7% were 35.13 ± 6.75 years old on average, and 85.8% had experienced verbal violence from the patient's companion in their workplaces. There was no meaningful correlation between physical abuse, verbal violence, and ethnic assaults and dimensions of quality of nursing care and the total score obtained ($p > 0.05$). Physical violence was not correlated with the communicative and psychosocial aspects of the quality of nursing care. At the same time, a meaningful but poor correlation (−0.27) was observed between physical abuse and the physical aspect of the quality of nursing care ($p < 0.05$). Although workplace violence was poorly correlated with the quality of nursing care in the intensive care units, further assessments of this phenomenon and establishing of a working group to achieve practical solutions that enhance the quality of nursing care in hospitals.

KEYWORDS

Nurse; workplace violence; intensive care units; quality of nursing care

1. Introduction

Workplace violence is a severe problem affecting healthcare system personnel. Worldwide, threats or violent actions against healthcare workers are rising exponentially (Berlanda et al. 2019). According to the U.S. Bureau of Labor Statistics (BLS), workplace violence against healthcare workers is much more prevalent than in other places, accounting for nearly 75% of all workplace violence reported (Schmidt et al. 2021). Approximately 8% to 38% of healthcare providers suffer from physical violence during their working lives, while others are bullied or verbally abused (World Health Organization 2021). Nurses are the front-line healthcare providers serving patients with illnesses, distress, and life transitions (Fute et al. 2015). Nurses face workplace violence 16 times more often than their healthy age groups (Zhao et al. 2018). Female nurses, the most notable and dominant workforce in the healthcare system, suffer from more workplace violence, especially where workload management and personnel deficits are the most significant challenges (Havaei et al. 2020).

In all countries, Nurses undergo great rates of injuries and damage in the health care and social work care systems. For instance, from 2000 to 2020, in China, 38.3% of harsh crimes, such as hospital-based violence, were committed using deadly weapons such as knives, of which 96.5% occurred chiefly in hospital wards, outpatient clinics, and emergency departments (Zhang et al. 2021).

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Intensive care units (ICUs) are specialist hospital wards where personnel suffer from the most workplace violence (Abraham et al. 2018). Nurses working in the ICU provide care for patients with critical conditions. They work in a closed space and are under overwhelming job pressure compared to other personnel, and thus, they cannot cope with any violence due to high workloads (Yoo et al. 2018). Such stressful work conditions can drive burnout, affect the health and quality of healthcare, and even threaten the safety of patients (Guntupalli et al. 2014).

A study in South Korea on 970 nurses working in different wards showed verbal violence, physical violence, sexual harassment, and coercion, respectively, in 63.8%, 41.6%, 19.7%, and 9.7% of participants. Physical violence, threats, and verbal abuse were more common in the ICUs, while sexual harassment and coercion mainly occurred in the operating room (Park et al. 2015). Personnel always suffer from terrifying or actual physical attacks and verbal aggression when involved in hard work and emergency tasks (Zhang et al. 2021).

1.1. Aims

Considering the importance of nurses' workplace violence and outcomes on the quality of nursing care and the paucity of data on violence in the ICUs, the current study aimed to assess the correlation between nurses' workplace violence and the quality of nursing care in Iran.

2. Materials and Methods

2.1. Study Design

The current study has a correlational design.

2.2. Eligibility Criteria

Inclusion criteria were having a Bachelor of Science (B.Sc.), Master of Science (M.Sc.), and Doctor of Philosophy (PhD) degree in nursing; working in the general intensive care units; at least one year of work experience; and being willing to attend the study and fill the questionnaires.

2.3. Sampling

The researcher collected data from nurses through the complete Census approach, following coordination and obtaining the necessary permissions, and explained to nurses working at different shifts in the ICU for 3 months. The researcher asked eligible participants willing to attend the study to sign the written consent form. Then, questionnaires were distributed among them and collected upon completion. The COVID-19 pandemic strongly affected the rate of participation, which hindered many volunteers from attending the study. At the start of the study, the researcher excluded a prequalified hospital because it did not allow the researcher to sample due to the extent of the pandemic involving all the personnel and healthcare providers in the ICUs. Out of 135 distributed questionnaires, 15 were non-returned or incompletely completed, excluded from the study. Finally, 120 questionnaires were completed by nurses working in the general ICUs of Shahid Beheshti University of Medical Sciences teaching hospitals.

2.4. Instrument

Data were collected through demographic surveying, a modified workplace violence questionnaire adopted from the World Health Organization's (WHO's) questionnaire on workplace violence in the health care system, and the Quality Patient Care Scale (QUALPAC). The modified workplace violence questionnaire is adopted from the WHO's questionnaire on workplace violence in the health care system, approved in 2002 by the WHO, the International Labor Organization (ILO), and the International Council of Nurses (ICN). The questionnaire covered 81 questions, including 24 questions on demographic information (i.e., personal details and workplace) in the first part and 57 questions on nurses' workplace violence in the second part, developed into several sections, chiefly with multiple-choice questions for easy answering by respondents.

The research team gathered data on the quality of nursing care by QUALPAC, the most reliable tool to measure the quality of care. Initially

developed in 1972, the questionnaire includes 72 items that cover psychosocial (33 questions), communicative (13 questions), and physical (26 questions) dimensions. A 5-point Likert scale scores each question.

2.5. Validity and Reliability

In a 2009 study by Teymoorzadeh and colleagues, the WHO's questionnaire on workplace violence in the healthcare system was translated and reviewed by Iranian professors and experts in health management and medical sciences, and its content validity was verified (Teymoorzadeh et al. 2009). The questionnaire's reliability was earlier confirmed in a 2006 study by Zamanzadeh and colleagues through preliminary research with a correlation coefficient of 0.97 (Zamanzadeh et al. 2006).

The validity of QUALPAC was assessed and confirmed in the study by Neishabory et al. (2011) with Cronbach's alpha of 80%. In our study, Cronbach's alpha of the QUALPAC was 95% (Neishabory et al. 2011).

2.6. Data Collection

Participants willing to attend the study were asked to sign the written consent form. Then, questionnaires were distributed among them and collected upon completion. All the participants were ensured of the confidentiality of data and allowed to leave the study whenever they wanted.

2.7. Data Analysis

The research team analyzed data in IBM SPSS Statistics version 18, used descriptive statistics (frequency distribution, mean, and standard deviation) to describe the information, and a correlation coefficient to determine the correlation between the dimensions of patient care quality and nurse's workplace violence.

2.8. Ethical Consideration

This manuscript is the product of the master's thesis approved with the code of ethics of IR.SBMU.RETECH.REC.1402.353. All the participants were ensured of the confidentiality of data and allowed to leave the study whenever they wanted.

3. Results

Of all 135 questionnaires distributed, 15 were not returned and were partially filled out; these were excluded from the study. ICU nurses ultimately completed 120 questionnaires (88%) in five public teaching hospitals in Tehran, and the collected data were analyzed. Of all participants, 80 were females, of which 66.7% were 35.13 ± 6.75 years old on average, and 3.3% were over 50 years. Other demographic characteristics are presented in Table 1.

Of all 120 nurses under concern, verbal, physical, sexual, and ethnic violence were confirmed in 85.8%, 21.7%, 6.7%, and 6.7% of nurses (Table 2).

A total of 77.5% of units reported no physical violence, while 53.3% of units confirmed occasional verbal violence, and 93.3% of units stated no sexual and ethnic violence against nurses. For ethnic violence, patients, coworkers, and physicians contributed equally to the violence by 1.7% (Table 3).

97.5% of nurses reported acceptable scores for the quality of nursing care. The quality scores for the psychosocial dimension were 90% on average. 52.5% and 47.5% of participants reported good, high-quality nursing care for the physical dimension. For the communicative dimension, 60% and 40% of participants stated optimum and poor quality of nursing care (Table 4).

Table 5 shows a negative and no meaningful association between physical, verbal, and ethnic violence with the quality of nursing care dimensions and the total scores obtained ($p < 0.05$). Sexual violence was not significantly correlated with communication and psychosocial aspects of the quality of nursing care, but it was poorly and meaningfully related to physical violence ($\rho = -0.27$) ($p < 0.05$).

No meaningful association was observed between the quality of nursing care and demographic characteristics, including age, the number of children, education, work experience, type of employment and position, ethnicity, income status,

overtime work, interest in the job, personal and work problems, and history of using psychiatric drugs. Quality of nursing care was only correlated with gender ($p < 0.001$), religion ($p < 0.03$), working shift ($p < 0.004$), and marital status ($p < 0.03$).

Table 1. Demographic variables of the participants.

Variables	Status	Frequency	Percentage*
Gender	Female	80	67
	Male	40	33
Age	30 and lower	31	26
	31–40	66	55
	41–50	19	16
	More than 50	4	3
		Mean ± SD (6.75 ± 35.13)	
Marital status	Single	48	40
	Married	67	56
	Divorced	5	4
No. of children	2	18	15
	3	5	4
	Unknown	97	81
Education	BC	104	87
	MSc	14	12
	Ph.D.	2	2
Work experience (year)	1–5	41	34
	6–10	29	24
	11–15	26	22
	16–20	15	13
	More than 20	9	8
Position	Matron	3	3
	Supervisor	37	31
	Nurse	80	67
Working shifts	Morning shift	15	13
	Morning and evening shifts	11	9
	Evening and night shifts	56	47
	Alternative shifts	38	32
Employment	Permanent	59	49
	Temporary	26	22
	Contractual	1	1
	Project-based	17	14
	Corporative	16	13
	Other	1	1
Income	Inappropriate	23	19
	Moderate	91	76
	Optimum	6	5
Religion	Shia	116	97
	Sunny	4	3
Ethnicity	Fars	77	64
	Turki	20	17
	Kurdi	9	8
	Lori	8	7
	Gilaki	1	1
	Mazani	2	2
	Torkaman	1	1
	Baluch	1	1
	Afghan	1	1

*Percentages are rounded to whole numbers.

4. Discussion

This study aimed to assess the correlation between nurse's workplace violence and the quality of nursing care in ICUs in Iran. Like other studies (e.g. Afkhamzadeh and Faraji 2020), verbal violence was the most common type of nurses' workplace violence in the ICUs. Teymoorzadeh et al. (2009) reported verbal abuse as the most common type of nurses' workplace violence (Teymoorzadeh et al. 2009). Fallahi-Khoshknab et al. (2016) reported physical violence in one-third of participants during the past 12 months (Fallahi-Khoshknab et al. 2016). A study by Afkhamzadeh et al. (2020) on nurses working in teaching hospitals of Kurdistan University of Medical Sciences (KUMS) revealed verbal violence as the most prevalent type of workplace violence (Afkhamzadeh and Faraji 2020). Afshari Saleh et al. (2020) investigated emergency department personnel in three hospitals in Mashhad. They reported verbal harassment, bullying, and physical onslaught as the predominant acts of violence during the past year (Saleh et al. 2020). In Iran, most nurses are women, which leads patients and their companions to avoid committing physical violence and, instead, take their anger out on personnel. Furiously provoked people often exhibit verbal behaviors such as insults and insults, then threatening actions, and ultimately, physical violence. In this study, the frequency of sexual and ethnic violence was least presumably due to cultural reasons and concern about its consequences. The higher rate of violence perceived by patients and their companions than nurses shows that Iranian nurses might sometimes avoid reporting violent actions against them

Companions committed most physical and verbal violence, while they were less involved in sexual and ethnic violence against nurses. Such findings are similar to previous studies. Paryad et al. (2015) showed that verbal and physical

Table 2. Frequency distribution types of violence against nurses.

	Yes		No		Total	
Facing violence	Frequency	Percentage*	Frequency	Percentage*	Frequency	Percentage
Physical violence	26	22	94	78	12	100
Verbal violence	103	86	17	14	12	100
Sexual violence	8	7	112	93	12	100
Ethnic violence	8	7	112	93	120	100

*Percentages are rounded to whole numbers.

Table 3. Frequency distribution of the assailant by the type of violence against nurses.

Who is committing the violence?		Physical	Verbal	Sexual	Ethnic
Patient	Frequency	17	12	–	–
	Percentage*	14	10	–	–
Companion	Frequency	20	67	2	2
	Percentage*	17	56	2	2
Patient and companion	Frequency	5	14	2	2
	Percentage*	4	12	2	2
Coworkers	Frequency	1	9	3	2
	Percentage*	1	8	3	2
Physician	Frequency	–	2	1	2
	Percentage*	–	2	1	2
Others	Frequency	–	4	–	–
	Percentage*	–	3	–	–

*Percentages are rounded to whole numbers.

Table 4. Quality of nursing cares for psychosocial and communicative aspects from the nurses' perspective.

Dimensions of the quality of nursing care	Inappropriate Frequency (%)	Somewhat appropriate Frequency (%*)	Optimum Frequency (%*)	Total Frequency (%)
Psychosocial	0	12 (29)	108 (90)	120 (100)
Communicative	48 (40)	72 (60)	0	120 (100)
Physical	0	57 (48)	63 (53)	120 (100)
Total score of the quality of nursing care	0	3 (3)	117 (97)	120 (100)

*Percentages are rounded to whole numbers.

Table 5. The correlation between types of violence against nurses and scores of the quality of nursing care.

Quality of nursing care dimensions/types of violence		Physical	Verbal	Sexual	Ethnic
Psychosocial	*R*	−0.11	−0.03	−0.12	−0.09
	P-value	0.24	0.72	0.17	0.31
Communicative	*R*	−0.001	−0.04	−0.016	−0.05
	P-value	0.98	0.69	0.09	0.54
Physical	*R*	−0.02	−0.001	−0.27	−0.11
	P-value	0.84	0.99	0.002	0.24
Total score	*R*	−0.05	−0.01	−0.17	−0.09
	P-value	0.59	0.87	0.06	0.34

violence are committed chiefly by companions and patients, respectively (Paryad et al. 2015). A study in 2011 by Fallahi Khoshknab and colleagues showed that patients' families were responsible for most of the violence committed (2020) (Fallahi-Khoshknab et al. 2016).

A similar study showed no meaningful relationship between demographic characteristics (e.g. age, gender, and marital status), working shifts, work experience, religion, ethnicity, employment, and types of violence. However, there was a meaningful correlation between job position and verbal violence ($p < 0.05$), as well as between education level and ethnic violence ($p < 0.05$). Afkhamzadeh et al. (2016) reported a meaningful correlation between gender, age, marital status, work experience, working care system, and night shift with exposure to physical violence ($p < 0.05$). Likewise, a meaningful relationship was found between age and the working care system with verbal violence and gender, as well as between age, work experience, and the working care system with coercion ($p < 0.05$) (Afkhamzadeh and Faraji 2020).

In this study, the total quality of nursing care score was optimal, indicating that high rates of nurses' workplace violence indicate the poor quality of nursing care. Generally, nurses' workplace violence can adversely affect the quality of nursing care. When encountering workplace violence, nurses' tendency to work is reduced, and they become less tolerant of patients and companions. Similar to the results of our study, Neishabory et al. (2011) reported optimum quality of nursing care scores (Neishabory et al. 2011). According to Zamanzadeh et al., most nurses reported optimum quality of nursing care for physical, psychological, social, and communicative dimensions, while the quality scores were inappropriate from patients' perspectives (Zamanzadeh et al. 2006). In the study by Fatehi et al. (2019), all nurses and one-third of patients confirmed the optimum quality of nursing care, while two-thirds claimed that the quality scores were unacceptable. A meaningful difference was observed in psychological, social, and physical dimensions according to both nurses and patients ($p < 0.001$) (Fatehi et al.

2019). Neishabory et al. studied the quality of nursing care regarding the psychosocial dimension. Nurses reported optimum quality of nursing care, while patients were unsatisfied with the services provided (Neishabory et al. 2011).

Contrary to patients 'opinions, half the nurses indicated proper and acceptable nursing care concerning the communicative dimension. Similar to the study of Neishabory et al., there was a meaningful correlation between the opinions of both patients and nurses for communicative and psychosocial dimensions ($p < 0.001$) (Neishabory et al. 2011). Similar to the results of our study, Khaki et al. showed that the quality of nursing care in the communicative dimension is less than in other dimensions; nearly one-third of the patients confirmed good verbal communication between nurses, while they stated that nurses could not establish good non-verbal communication (Khaki et al. 2018). Therefore, adopting strategies to improve nurse-patient relationships and more respect for patients' physical, psychosocial, and communication requirements is crucial to improving the quality of nursing care.

Our results showed no meaningful correlation between the quality of nursing care with demographic variables (e.g. age, number of children, education, work experience, type of employment, and occupation), ethnicity, income status, overtime working, interest in the job, personal and work problems, and history of using psychiatric drugs. However, a meaningful association was found between the quality of nursing care and gender, religion, working shift, and marital status. In the study by Khaki and colleagues, there was no meaningful correlation between the quality of nursing care and demographic variables such as working shift, age, marital status, nursing degree, employment status, and work experience. However, the quality of nursing care was better for married nurses with fixed shifts than for single nurses with rotating shifts, though the difference was not meaningful (Khaki et al. 2018).

5. Conclusion

Nurses' workplace violence is a common problem threatening the general health of any community. Our results confirmed high rates of nurses' workplace violence in the ICUs. Training nurses to improve communication and anger management skills, enabling them to deal with stressful and violent situations, teaching proper emotion management methods, organizing appropriate intervention programs to prevent workplace violence, providing convenient conditions for nurses to report cases of violence, and ensuring security can assist nurses to control violent behaviors efficiently. Administrators of health care centers must attempt to provide a safe working space for personnel. Generally, nurses' workplace violence can adversely affect the quality of nursing care. When encountering workplace violence, nurses become less compliant and show less power to withstand violence by patients and companions. Since nursing care performance directly depends on patient outcomes in ICUs, identifying factors influencing nursing performance from different aspects can substantially improve the outcomes. Assessment of nurses' workplace violence in ICUs and establishing a working group to deliver practical solutions can substantially enhance the quality of nursing care in hospitals.

6. Limitations and Strengths

Due to the outbreak of COVID-19, the ICUs of hospitals were involved in an epidemic at the beginning of the research, and some of them were not allowed to enter and sample or were delayed for several months, and nurses had no competition to respond due to these special conditions. On the other hand, self-assessment is a limiting factor. Self-reported biases may influence the results of this study. Also, in the self-report method, participants may not respond due to their inability to recall, tendency to exaggerate issues, and erroneous recall of violent incidents. To minimize bias in recall, the researcher asked participants to recall events from the past 12 months.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

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Data Availability Statement

The data that support the findings of this study are available from the corresponding author, M.P, upon reasonable request.

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