Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Workplace Violence in Intensive Care Settings: Associations with Nurses' Communication Skills and Quality of care

Ali Moradi Chaleshtari
Qom University of Medical Sciences
Mina Gaeeni
mgaeini@muq.ac.ir
Qom University of Medical Sciences
Mohammad Abbasinia
Qom University of Medical Science
Mohammad Parvaresh-Masoud
Qom University of Medical Sciences

Research Article

Keywords: Workplace violence, ICU nurses, Communication skills, Quality of care

Posted Date: June 17th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-9681040/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Title page

Manuscript Type: Original Research

Main Title: **Workplace Violence in Intensive Care Settings: Associations with Nurses' Communication Skills and Quality of care**

First Author:

1. Ali Moradi Chaleshtari, MSc. Department of Emergency Nursing, School of Nursing and Midwifery, Qom University of Medical Sciences, Qom, Iran.

ORCID ID: 0009-0003-0334-6197

2. Mina Gaeeni, Associated Professor (PhD in Nursing), psychiatric Nursing department, Faculty of Nursing and Midwifery, Qom University of Medical Sciences, Qom, Iran

ORCID ID: 0000-0002-7673-7370

3. Mohammad Abbasinia, Associate Professor (PhD in Nursing), Department of Medical-Surgical Nursing, Faculty of Nursing and Midwifery, Qom University of Medical Science, Qom, Iran.

ORCID: 0000-0003-3842-1508

4. Mohammad Parvaresh-Masoud (PhD in Nursing), Department of emergency medicine, Paramedical faculty, Qom University of Medical Sciences, Qom, Iran.

ORCID: 0000-0001-5033-5165

Acknowledgements

The authors would like to thank the nurses participated in the study and the Deputy for Research of Qom University of Medical Sciences for their cooperation and support in this research.

Authors contributions

The corresponding author (M.G.) was responsible for writing, and final review. (M.G.) is the supervision professor who guided all the authors on steps of the study. (A.M.Ch&M.P.M) contributed to the initial draft preparation, conceptualization, writing, and methodology. (M.A.) was involved in data analysis and writing. (A.M.Ch.) was responsible for data gathering.

Funding

The authors received no funding for this research.

Data availability

All data related to this study can be accessed by contacting the corresponding author.

Declarations:

Ethical approval and consent to participate.

This study was approved by the Ethics Committee of Qom University of Medical Sciences, Qom, Iran (Code: IR.QMU. REC.1402.235). The study was fully explained in person, and informed consent was obtained by providing the questionnaire. The study was conducted in accordance with local regulations, the Declaration of Helsinki, for medical and biological research involving human subjects.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests

Corresponding author:

Mina Gaeeni

Mina Gaeeni, Associated Professor (PhD in Nursing), psychiatric Nursing department, Faculty of Nursing and Midwifery, Qom University of Medical Sciences, Qom, Iran

Email:mkaeeni@yahoo.com **academic email:** mgaeini@muq.ac.ir

ORCID ID: 0000-0002-7673-7370

Tel: Cell Phone: **+98- 912 -552-0819**
Tel: Work Place: **+98 -253- 3783-2370**
Tel: Home Place: **+98 -253- 665-4649**
Fax: **+98 -253- 3783-1370**
Address: Nursing Faculty **,**Alle**y** 2, East Moallem St. Qom, Qom Province,Iran.

Abstract

Background Workplace violence (WPV) is a major global challenge in healthcare, particularly affecting nurses because of their close and continuous interactions with patients and families. This study aimed to determine the prevalence and types of WPV among intensive care unit nurses in Qom hospitals and to examine its relationship with nurses' communication skills and quality of care.

Methods This cross-sectional descriptive-analytical study was conducted from March 2023 to February 2024. A total of 324 ICU nurses were invited to participate, of whom 296 completed the study questionnaires (response rate: 91%). Data were collected using the WHO Workplace Violence in the Health Sector Questionnaire, the Quality Patient Care Scale

(QUALPAC), and the Queen Dam Communication Skills Questionnaire (CSTR). Descriptive statistics and inferential statistics (multivariate regression analyses, independent t-test, and Mann-Whitney) were performed using SPSS version 26.

Results The prevalence of violence was: verbal 62.5%, physical 15.88%, racial 13.51%, and sexual 10.14%. Logistic regression analysis revealed that nurses with Master's degrees were less exposed to physical, verbal, and sexual violence, while rotating-shift nurses and less experienced nurses were more susceptible. Verbal and physical violence significantly reduced nursing care quality across psychosocial, communicative, and physical dimensions, whereas sexual violence affected physical care and overall quality. Communication skills, particularly listening, were associated with reduced exposure to physical violence, while assertive communication showed complex associations with sexual and racial violence.

Conclusions Workplace violence creates a vicious cycle that weakens nurses' communication skills and care quality; therefore, implementing violence prevention programs, enhancing communication competencies, and strengthening organizational support can effectively improve clinical care quality and patient outcomes in ICU settings.

Clinical trial number: Not applicable.

Keywords: Workplace violence, ICU nurses, Communication skills, Quality of care

Background

Workplace violence (WPV) refers to any threatening, abusive, or harmful behavior that occurs within the workplace or in work-related contexts(1). According to the World Health Organization, WPV includes physical, verbal, racial, and sexual violence (2). Although such incidents may occur in all types of organizations, they are significantly more prevalent in healthcare settings (3). Evidence shows that healthcare workers are up to sixteen times more likely to experience workplace violence compared to other occupations, and over half of them

have reported at least one episode of violence during their careers (2, 4). Among healthcare professionals, nurses constitute the group most frequently exposed to violence due to their continuous presence at the patient's bedside and frequent interactions with patients and their families (5). Studies conducted in various countries, based on evidence synthesized in a systematic review, indicate that the prevalence of workplace violence (WPV) among nurses ranges from 4.11-97.6% (6). Moreover, the Middle East has been identified as a region with particularly high rates, with an average exposure of approximately 67% (7, 8).

A systematic review conducted in Iran, along with evidence from multiple individual studies, indicates that the prevalence of violence against nurses is high, with reported rates ranging from 74% to 88.1%(9). Several occupational and contextual factors contribute to this elevated risk, including staff shortages, the employment of inexperienced or temporary personnel, demanding work conditions, close physical contact with patients, substance abuse among patients or relatives, access to weapons, unrealistic expectations of nursing staff, insufficient control over the workplace environment, and inadequate safety and security resources(7).

Workplace violence affects all hospital units; however, certain clinical settings exhibit substantially higher incidence rates. Emergency departments, psychiatric wards, and intensive care units (ICUs) consistently report the highest frequencies of violent events(10). ICUs, in particular, are highly vulnerable to WPV due to their unique clinical characteristics. These units provide care to critically ill patients who require continuous monitoring and complex interventions. Uncertain prognoses, extended hospital stays, treatment complications, and the increased likelihood of mortality contribute to heightened stress among both families and healthcare professionals, thereby increasing the risk of aggression(8). Studies support this concern; for example, research has shown that 99.5% of ICU nurses had experienced violence perpetrated by patients(11). Other international studies report similarly high levels

of verbal and physical violence(12). In Iran, research has shown that approximately 74% of ICU nurses experience violence, with verbal abuse being the most common form(13).

The consequences of workplace violence are extensive and multifaceted, affecting nurses, patients, and healthcare organizations. Exposure to violence contributes to decreased morale, job dissatisfaction, burnout, reduced productivity, impaired communication, and an increased risk of medical errors. These adverse outcomes ultimately undermine the quality of care delivered to patients(14). Given that high-quality nursing care plays a crucial role in promoting patient health and safety, threats to the work environment—including violence—pose significant risks to clinical outcomes(13, 15).

Effective communication is an essential component of high-quality nursing care and contributes to patient safety, therapeutic relationships, and teamwork (16). Numerous studies have demonstrated a direct and positive relationship between nurses' communication skills and the quality of care they provide(17). Training programs aimed at improving communication skills have been shown to enhance clinical performance and strengthen interactions with patients and colleagues. Conversely, deficiencies in communication skills have been identified as an important underlying factor in the emergence of workplace violence (16, 18). In some studies, more than 70% of healthcare personnel attributed violent incidents to communication-related problems(16). Consequently, strengthening communication competencies is widely considered a key strategy for preventing and managing workplace violence in healthcare environments (19, 20). Evidence indicates that communication-skills training can significantly reduce the frequency of violent incidents(21, 22).

Given the varying prevalence of violence across different regions worldwide and the influence of cultural, social, and geographical factors within Iran, localized investigations are

necessary. Qom Province is characterized by several unique features: it is a major pilgrimage destination, it lies on a transit route connecting multiple regions, and it experiences a high rate of traffic-related injuries. These factors contribute to the admission of patients from diverse cultural backgrounds, which may influence interpersonal dynamics and the potential for violence. Understanding the pattern and determinants of workplace violence in this specific context is therefore of considerable importance.

Accordingly, the present study was conducted with the aim of investigating workplace violence against nurses working in intensive care units of educational and medical centers affiliated with Qom University of Medical Sciences, and examining its relationship with quality of care and communication skills in 2024.

Methods

Design and Sample

This descriptive-analytical cross-sectional study was conducted in the intensive care units (ICUs) of hospitals in Qom, Iran, between March 2023 and February 2024. Following the approval of the Ethics Committee of Qom University of Medical Sciences and the issuance of a formal introduction letter from the Vice-Chancellor for Research and Technology, the researcher entered the clinical settings to initiate data collection. A total of 324 ICU nurses who met the inclusion criteria were initially recruited, of whom 296 completed the study instruments in full, yielding a response rate of 91%. Eligibility criteria included employment in morning, evening, or night shifts and at least six months of ICU work experience. To enhance sample homogeneity and reduce potential confounding effects, nurses with a history of psychiatric disorders, psychotropic medication use, or recent major life crises (e.g., divorce, death of a first-degree relative, or organizational relocation) were excluded. Non-cooperation during data collection and incomplete questionnaires constituted additional

exclusion criteria. Ethical considerations included informing participants of the study objectives, assuring confidentiality and voluntary participation, emphasizing the right to withdraw at any stage, and obtaining written and verbal informed consent.

Data Collection Tools

Data were collected using a demographic checklist and three standardized instruments: the World Health Organization (WHO) Workplace Violence in the Health Sector Questionnaire, the Quality Patient Care Scale (QUALPAC), and the Queen Dam Communication Skills Questionnaire (CSTR).

1)The WHO Workplace Violence Questionnaire, comprising 52 items and an open-ended question across four domains (physical, psychological, sexual, and racial violence), was used to assess exposure to violence. Its validity has been confirmed through content evaluation, and reliability was previously reported at 0.80 using test–retest methods(23, 24).

2)The QUALPAC scale, consisting of 65 items across physical, relational, and psychosocial dimensions, was used to measure the quality of nursing care. This instrument has demonstrated high reliability (Cronbach's $\alpha = 0.97$) and content validity established by expert review(25).

3)Communication skills were assessed using the 34-item CSTR questionnaire, which examines five subscales: message reception, emotional regulation, listening skills, communication insight, and assertiveness. Its reliability has been reported at 0.69 (Cronbach's α)(26).

Statistical Analysis

Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to characterize the sample and the types of workplace violence. The Kolmogorov–

Smirnov test was applied to assess data normality. Relationships between workplace violence and demographic characteristics were examined using multivariate logistic regression. Associations between workplace violence and nursing care quality were analyzed using independent t-tests or Mann–Whitney tests, based on data distribution. In addition, multivariate logistic regression adjusted for gender, education, and work experience was used to predict the relationships between communication skills and different types of workplace violence. All statistical analyses were conducted using SPSS software((IBM SPSS Statistics, Version 26.0).

Results

Among 324 ICU nurses invited to participate, 296 completed the study, yielding a 91% response rate. The majority of participants were female (67.6%), married (66.9%), held a bachelor's degree in nursing (80.1%), worked rotating shifts (85.1%), were officially employed (47.6%), and had over 10 years of work experience (44.6%). The most prevalent type of workplace violence (WPV) reported was verbal violence (62.5%), followed by physical (15.88%), racial (13.51%), and sexual violence (10.14%). Regarding physical violence, 47 nurses reported incidents within the past year, with pushing being the most common form (63.83%). Most physical assaults occurred during night shifts (71.47%), were unarmed (80.85%), caused no serious injury (82.98%), and were perpetrated exclusively by males aged 21–30 (50%). Verbal violence was predominantly insults (35.91%) and ridicule (20.77%), frequently occurring during patient admission (42.16%) and evening shifts (40.59%), mainly by male family members aged 31–40 (61.87% of cases).(see Table1).

Table 2 summarizes the regression analysis used to examine demographic predictors of workplace violence among ICU nurses. The results demonstrated that age was not significantly associated with experiences of physical, verbal, or racial violence ($P > 0.05$).

However, nurses with a master's degree experienced lower exposure to physical (63.9%), verbal (57.3%), and sexual (76.8%) violence compared to bachelor-level nurses ($P<0.05$). Work experience demonstrated differential effects: nurses with less than five years of experience had a 2.138% higher risk of physical violence, while verbal violence decreased by 76.2% and 74.7% for nurses with <5 years and 5–10 years of experience, respectively ($P<0.05$). Fixed-shift nurses had a reduced likelihood of physical (95.1%) and racial (60.1%) violence but a 3.953-fold increased risk of verbal violence ($P<0.05$). Married nurses were 3.736 times more likely to experience racial violence than single nurses ($P<0.05$). As shown in Table 3 the likelihood of sexual violence decreased by 93.3% among nurses with 5–10 years of experience ($P<0.05$).

Exposure to physical and verbal violence was significantly associated with reduced nursing care quality across psychosocial, communicative, and physical dimensions, as well as overall quality ($P<0.05$). Sexual violence was linked to decreased physical and overall care quality ($P<0.05$) but not to psychosocial or communicative dimensions. Racial violence was not associated with any significant changes in care quality (see Table 4).

The analysis of communication skills presented in Table 5 demonstrated a protective effect of listening skills against physical violence, with a 25.4% reduction in the likelihood of exposure ($P < 0.05$). None of the communication skill dimensions showed a significant association with verbal violence. However, sexual violence was inversely associated with nurses' abilities to receive and convey messages, corresponding to an 18.8% reduction in risk. In contrast, higher levels of assertive communication were associated with an increased likelihood of sexual violence (OR = 1.12). Similarly, assertive communication was significantly associated with a greater likelihood of racial violence (OR = 1.789, $P < 0.05$).

These findings highlight that verbal violence is the predominant form of WPV in ICU settings, followed by physical incidents. Education level, work experience, and shift type significantly influence vulnerability to different types of violence. WPV negatively impacts nursing care quality, particularly when physical and verbal violence are involved. Communication skills demonstrate complex relationships with WPV, suggesting that certain skills (e.g., listening) can reduce exposure, while assertiveness may increase vulnerability to sexual and racial violence. The study underscores the critical need for targeted interventions, including educational programs, shift management strategies, and institutional policies, to mitigate workplace violence and safeguard nursing performance and patient care quality in intensive care units.

Discussion

This study investigated the prevalence of workplace violence (WPV) against nurses in intensive care units (ICUs) of Qom city hospitals and its relationship with quality of care and communication skills. The findings demonstrate that verbal violence was the most common form experienced by nurses, followed by physical violence. Insults were the predominant type of verbal violence, whereas pushing was the most frequent form of physical aggression. These results align with prior studies(27-29), including those by Babapour et al. and Cao et al., which reported that insults constituted the majority of verbal violence against nurses (59.6%)(29, 30), and Amini et al. and Rahmani et al. found pushing to be the primary form of physical violence(3, 31).

Physical violence predominantly occurred during night shifts, was mostly perpetrated without weapons, and generally did not result in serious injury. Perpetrators were primarily male family members aged 21–30 years. These findings are consistent with previous research(11, 15, 32, 33) . and may be explained by the unique dynamics of ICUs, where patients' critical

conditions limit their ability to respond, and family members express dissatisfaction through aggression towards the most accessible healthcare personnel, i.e., nurses(32). Contributing factors include staff shortages, high workload, fatigue, and the presence of younger, less experienced nurses with limited communication skills(34, 35) . Notably, this contrasts with Ceballos et al., who reported the highest incidence of physical violence during morning shifts in emergency departments, likely due to differences in patient flow, visitor behavior, and departmental context(32).

Verbal violence, reported by over half of the nurses, mainly occurred during evening shifts and was frequently perpetrated by patient companions. This finding aligns with Spector et al. (2014), indicating that stress and concern over patients' conditions are major triggers for verbal aggression by family members(36). No significant association was found between nurses' age and exposure to physical or verbal violence ($P>0.05$), which is corroborated by studies from Yang et al. (2025), Keyvan Ara et al. (2015), Norollahi et al. (2022), and Mousavi Khorasani et al. (2022).(9, 37-39). However, this contrasts with Shen et al., who reported that younger, less skilled nurses are more vulnerable to aggression(40). Chi-square analyses indicated a significant association between age and verbal violence ($P<0.05$), supporting Najafi et al.'s finding that experience reduces vulnerability through improved conflict management and communication skills(41).

Education level was significantly associated with exposure to violence: nurses with a master's degree experienced lower rates of physical, verbal, and sexual violence compared to those with a bachelor's degree ($P<0.05$), consistent with findings by Heidari et al., Schlup et al., and other studies(38, 42-45). Regarding work experience, nurses with less than five years of service were more likely to experience physical violence, whereas those with 5–10 years of experience had reduced risk of verbal and sexual violence, highlighting the protective role of professional experience and practical communication skills. Rotating shift nurses were

more exposed to physical and racial violence, whereas fixed shift nurses reported higher exposure to verbal violence, possibly due to differing patient interaction patterns and workload intensity(43, 46, 47). Married nurses were approximately 3.736 times more exposed to racial violence than single nurses ($P<0.05$), suggesting that personal and social factors may influence vulnerability.

Sexual violence was significantly related to age, education, and work experience. Nurses with master's degrees were 76.8% less likely to experience sexual violence, and those with 5–10 years of experience had a 93.3% lower likelihood, reinforcing the protective effects of education and professional experience(42, 43). No significant relationship was observed between age and racial violence, but shift type influenced exposure, with rotating shift nurses at higher risk(43).

Exposure to workplace violence was associated with reduced quality of nursing care across psychosocial, communicative, and physical dimensions. Nurses experiencing physical and verbal violence showed significantly lower overall care quality, whereas sexual violence negatively affected the physical dimension and overall quality but not psychosocial or communicative dimensions. Racial violence did not significantly impact care quality. These findings are consistent with studies by Foster Mensah et al. (2021) and Liu et al. (2019), which showed that WPV increases stress, decreases concentration, and impairs care performance(48, 49). Iranian studies also confirm that even isolated incidents of violence reduce job satisfaction, communication efficacy, and care quality(50, 51).

Communication skills were significantly associated with specific forms of violence. Listening skills were inversely related to physical violence, while the ability to receive and send messages and assertive communication were associated with sexual violence. Interestingly, assertive communication increased the likelihood of racial violence. These findings support

prior research indicating that stronger communication skills reduce vulnerability to workplace aggression and improve patient outcomes(36, 52-54). Active listening, empathy, and conflict management are critical for mitigating tensions and preventing violence in clinical settings.

Overall, this study highlights a cyclical relationship in which workplace violence undermines communication skills, which in turn reduces the quality of nursing care. This cycle has wide-ranging consequences for patient safety, nurse well-being, and healthcare system performance. Addressing WPV through preventive and supportive protocols, managerial interventions to enhance workplace safety, particularly during night shifts, and structured communication skills training can improve both care quality and staff resilience. Future research should explore organizational, cultural, and social determinants of violence, conduct comparative studies across departments, and incorporate qualitative methods to understand nurses' lived experiences.

Limitations of the study

Limitations of the study include reliance on self-reported questionnaires, which may be subject to reporting bias or incomplete responses. High workload and fatigue may have affected completion rates. Additionally, the study's focus on a single city and ICU settings limits generalizability. Organizational and cultural factors influencing violence were not fully assessed.

Conclusion

Overall, this study highlights a cyclical relationship in which workplace violence undermines communication skills, which in turn reduces the quality of nursing care. This cycle has wide-ranging consequences for patient safety, nurse well-being, and healthcare system performance. Addressing WPV through preventive and supportive protocols, managerial interventions to enhance workplace safety, particularly during night shifts, and structured

communication skills training can improve both care quality and staff resilience. Future research should explore organizational, cultural, and social determinants of violence, conduct comparative studies across departments, and incorporate qualitative methods to understand nurses' lived experiences.

Implications for practice include establishing confidential reporting systems, providing communication and conflict management training, strengthening psychological support, revising hospital policies on violent behavior, and implementing organizational strategies to reduce workload and improve workplace conditions. These interventions can guide nursing managers, healthcare policymakers, and hospital administrators in reducing WPV and enhancing the quality of nursing care.

References

1. Gates DM, Gillespie GL, Succop P. Violence against nurses and its impact on stress and productivity. Nursing economic$. 2011;29(2):59-66.
2. Ghodsbin F, Dehbozorgi Z, Tayari N. Prevalence of violence against nurses. J Shahed Univ. 2008;16:45-52.
3. Rahmani A, Bakhshian A, Dadashzadeh A, Namdar H, Akbari M. Workplace violence from point of view of emergency medicine staff in East Azarbayjan. Iran J Res Nurs. 2008;3:100-7.
4. 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 services research. 2012;12(1):245.
5. Whelan T. The escalating trend of violence toward nurses. Journal of emergency nursing. 2008;34(2):130-3.
6. Jang SJ, Son YJ, Lee H. Prevalence, associated factors and adverse outcomes of workplace violence towards nurses in psychiatric settings: A systematic review. International journal of mental health nursing. 2022;31(3):450-68.
7. Magnavita N, Heponiemi T. Workplace violence against nursing students and nurses: an Italian experience. Journal of nursing scholarship. 2011;43(2):203-10.
8. Sharma S, Gautam PL, Sharma S, Kaur A, Bhatia N, Singh G, et al. Questionnaire-based evaluation of factors leading to patient-physician distrust and violence against healthcare workers. Indian journal of critical care medicine: peer-reviewed, official publication of Indian Society of Critical Care Medicine. 2019;23(7):302.
9. Noorullahi S, Safaie N, Soltani-Kermanshahi M, Mansori K. The prevalence of workplace violence and related factors in the emergency department staff of Iran: a cross-sectional study. Middle East current psychiatry. 2022;29(1):82.

10. Hsieh HF, Wang HH, Shen SH, Li YC. Predictors of depressive symptoms among psychiatric nurses who suffered from workplace violence. Journal of Advanced Nursing. 2018;74(2):425-32.
11. Yoo HJ, Suh EE, Lee SH, Hwang JH, Kwon JH. Experience of violence from the clients and coping methods among intensive care unit nurses working in a hospital in South Korea. Asian nursing research. 2018;12(2):77-85.
12. Araujo WSd, Iannhes D, Lima AAdF. Workplace violence suffered and witnessed by nursing professionals in the intensive care unit. Mundo da saúde, v 42, n 4, p 1082-1103, 2018. 2018.
13. Cheraghi MA, Noghan N, MOGHIMBEIGI A, Bikmoradi A. ANALYSIS OF INTENSIVE CARE NURSES'WORKPLACE VIOLENCE. 2012.
14. Arnetz JE, Arnetz BB. Implementation and evaluation of a practical intervention programme for dealing with violence towards health care workers. Journal of advanced nursing. 2000;31(3):668-80.
15. White EM, Aiken LH, McHugh MD. Registered nurse burnout, job dissatisfaction, and missed care in nursing homes. Journal of the American Geriatrics Society. 2019;67(10):2065-71.
16. Ghiasee A, Sağsan M. The relationship between violent behavior in healthcare settings and communication skills: an empirical study on provincial hospitals in Ankara. Alpha psychiatry. 2021;22(2):106.
17. Shafipour V, Salimi SS, Azimi Lolaty H, Moosazadeh M. Effect of Nursing Skills Education on the Quality of Patient Care: A Systematic Review and Meta-analysis. Journal of Mazandaran University of Medical Sciences. 2018;28(163):135-43.
18. Ahmad M, Al-Rimawi R, Masadeh A, Atoum M. Workplace violence by patients and their families against nurses: literature review. International Journal of Nursing and Health Science. 2015;2(4):46-55.
19. Gates D, Gillespie G, Smith C, Rode J, Kowalenko T, Smith B. Using action research to plan a violence prevention program for emergency departments. Journal of emergency nursing. 2011;37(1):32-9.
20. d'Ettorre G, Mazzotta M, Pellicani V, Vullo A. Preventing and managing workplace violence against healthcare workers in Emergency Departments. Acta Bio Medica: Atenei Parmensis. 2018;89(Suppl 4):28.
21. Keller R, Krainovich-Miller B, Budin W, Djukic M. Predictors of nurses' experience of verbal abuse by nurse colleagues. Nursing outlook. 2018;66(2):190-203.
22. Touzet S, Occelli P, Denis A, Cornut P-L, Fassier J-B, Le Pogam M-A, et al. Impact of a comprehensive prevention programme aimed at reducing incivility and verbal violence against healthcare workers in a French ophthalmic emergency department: an interrupted time-series study. BMJ open. 2019;9(9):e031054.
23. Rahimzadeh MR, Zabihi A, Hosseini S. Verbal and physical violence on nurses in hospitals of Babol University of Medical Sciences. Hayat/Ḥayāt. 2011;17(2).
24. Ahmadi M. Workplace violence and related factors in operating rooms in iran: a cross-sectional study. Studies in Medical Sciences. 2019;30(10):759-70.
25. Sabzianpur Z, Nuri S. Effect of spiritual intelligence on quality of nursing care of educational and treatment hospitals in Hamadan. Avicenna Journal of Nursing and Midwifery Care. 2019;27(1):18-24.
26. Hosseinchari M, Fadakar MM. Investigating the Effects of Higher Education on Communication Skills Based on Comparison of College and High School Students. Teaching and Learning Research. 2006;3(2):21-32.
27. Berger S, Grzonka P, Frei AI, Hunziker S, Baumann SM, Amacher SA, et al. Violence against healthcare professionals in intensive care units: a systematic review and

meta-analysis of frequency, risk factors, interventions, and preventive measures. Critical Care. 2024;28(1):61.
28. Sridharan V, Leung KC, Peisah C. Understanding aggression displayed by patients and families towards intensive care staff: A systematic review. Journal of the Intensive Care Society. 2024;25(3):266-78.
29. Cao Y, Gao L, Fan L, Zhang Z, Liu X, Jiao M, et al. Effects of verbal violence on job satisfaction, work engagement and the mediating role of emotional exhaustion among healthcare workers: a cross-sectional survey conducted in Chinese tertiary public hospitals. BMJ open. 2023;13(3):e065918.
30. Babapour A, Pourhabib A, Heidari Gorjee MA, Mousavi Nasab N. Verbal Violence against Emergency Medical Service Workers at the Mazandaran University of Medical Sciences. Quarterly Journal of Caspian Health and Aging. 2023;8(2):0-.
31. Amini R, Mohammadi N, Karaji F, Tapak L. Frequency of the type of workplace violence against Hamadan medical emergency technicians and its relationship with individual and occupational variables, 2018. Avicenna Journal of Nursing and Midwifery Care. 2020;27(6):381-93.
32. Ceballos JB, Frota OP, Nunes HFSS, Ávalos PL, Krügel CdC, Ferreira Júnior MA, et al. Physical violence and verbal abuse against nurses working with risk stratification: characteristics, related factors, and consequences. Revista Brasileira de Enfermagem. 2020;73:e20190882.
33. Ferri P, Stifani S, Accoto A, Bonetti L, Rubbi I, Di Lorenzo R. Violence against nurses in the triage area: a mixed-methods study. Journal of emergency nursing. 2020;46(3):384-97.
34. Edward K-l, Ousey K, Warelow P, Lui S. Nursing and aggression in the workplace: a systematic review. British journal of nursing. 2014;23(12):653-9.
35. Jafree SR. Workplace violence against women nurses working in two public sector hospitals of Lahore, Pakistan. Nursing outlook. 2017;65(4):420-7.
36. Spector PE, Zhou ZE, Che XX. Nurse exposure to physical and nonphysical violence, bullying, and sexual harassment: A quantitative review. International journal of nursing studies. 2014;51(1):72-84.
37. Yang H-L, Tai J-C, Wang C-H, Shyu Y-K, Chou K-R, Pien L-C. Workplace violence, work characteristics, and seniority levels among nurses: a cross-sectional study. BMC nursing. 2025;24(1):281.
38. Keyvanara M, Maracy MR, Ziari NB. A study conducted on the demographic factors of victims of violence in support and administrative departments of hospital in 2013. Journal of education and health promotion. 2015;4(1):35.
39. Mousavi Khorasani SA, Zarea K, Fallahi-Khoshkenab M, Maraghei E. Workplace violence against nurses and its related factors in hospitals of Abadan, IRAN. Nursing And Midwifery Journal. 2022;20(9):709-21.
40. Shen H-C, Cheng Y, Tsai P-J, Lee S-hS, Guo YL. Occupational stress in nurses in psychiatric institutions in Taiwan. Journal of occupational health. 2005;47(3):218-25.
41. Fallahi-Khoshknab M. Workplace violence against Iranian nurses: A systematic review. Journal of health promotion management. 2014.
42. Schlup N, Gehri B, Simon M. Prevalence and severity of verbal, physical, and sexual inpatient violence against nurses in Swiss psychiatric hospitals and associated nurse-related characteristics: Cross-sectional multicentre study. International journal of mental health nursing. 2021;30(6):1550-63.
43. Heidari A, Kazemi SB, Kabir MJ, Khatirnamani Z, Zargaran MM, Lotfi M, et al. Exposure to workplace violence and related factors among nurses working in hospitals

affiliated with golestan university of medical sciences. Depiction of Health. 2023;14(2):166-78.
44. Javad S, Leila Ezazi E, Mojgan Karbakhsh D. Violence against nurses in non-psychiatry emergency wards. 2007.
45. Dehnadi-Moghaddam A, Asgharzadeh A, Hosseini SJ, Kouchakinejad-Eramsadati L, Baghernia Hemmati N. Frequency and characteristics of violence against nurses of emergency. Journal of Health and Care. 2012;14(4):0-.
46. DEHNABI A, RADSEPEHR H, DEHNABI A. Investigating the factors affecting violence against emergency nurses in Sabzevar Medical Sciences Hospitals. Occupational Hygine and Health Promotion Journal. 2018;2(1):51-61.
47. Mozafari M, Tavan H. Survey of violence against nursing in the Ilam training hospitals at 2012. 2013.
48. Agbornu FMK, Boafo IM, Ofei AMA. Effects of workplace violence on the quality of care by nurses: A study of the Volta Region of Ghana. International Journal of Africa Nursing Sciences. 2022;16:100421.
49. Liu J, Gan Y, Jiang H, Li L, Dwyer R, Lu K, et al. Prevalence of workplace violence against healthcare workers: a systematic review and meta-analysis. Occupational and environmental medicine. 2019;76(12):927-37.
50. Hajibabaee F, Mousavi SH, Hosseini A, Haghani S, Bahramali S. Association of workplace bullying and the quality of nursing care in intensive care unit and emergency department nurses. Iran Journal of Nursing. 2020;33(125):42-54.
51. Fahimi F, Adelmehraban M, Najafi GT, Haghani S. The relationship between perceived organizational support with safe nursing care in nurses working in the intensive care units of selected hospitals in Tabriz, Iran. 2023.
52. Begjani J, Jafari M, Khajezadeh A, Rajabi MM. The Relationship Between Communication Skills and Workplace Bullying Experienced by Nurses. Scientific Journal of Nursing, Midwifery and Paramedical Faculty. 2025;10(3):296-310.
53. Aiken LH, Sloane DM, Ball J, Bruyneel L, Rafferty AM, Griffiths P. Patient satisfaction with hospital care and nurses in England: an observational study. BMJ open. 2021;8(1):e019189.
54. Kwak Y, Han Y, Song Js, Kim Js. Impact of emotional labour and workplace violence on professional quality of life among clinical nurses. International Journal of Nursing Practice. 2020;26(1):e12792.

Table1 Demographic Characteristics of Nurses and Types of Workplace Violence

Variable	Subcategory Details	Frequency (n)	Percentage (%)
Age	<30	121	40.8
	30-35	55	18.6
	35-40	110	37.2
	>40	10	3.4
Gender	Male	96	32.4
	Female	200	67.6
Education	Bachelor's	237	80.1
	Master's	59	19.9
Marital Status	Single	98	33.1
	Married	198	66.9
Employment Type	Temporary	57	19.3
	Contractual	23	7.8
	Official	141	47.6
	Other	75	25.3
Work Shift	Fixed	44	14.9
	Rotating	252	85.1
Work Experience	<5 years	101	34.1
	5-10 years	63	21.3
	>10 years	132	44.6
Physical Violence	Experienced	47	15.88
	Not Experienced	249	84.12
	Type: Punching	9	19.15
	Type: Pushing	30	63.83
	Type: Pinching	8	17.02
	Time: Morning	8	17.39
	Time: Evening	5	10.63
	Time: Night	33	70.21
	During Admission: Emergency	37	78.72
	During Admission: Ward	3	6.38
	Post Admission: Ward	6	12.77
	Payment/Discharge	1	2.13
	Weapon: No	38	80.85
	Weapon: Club	4	8.51
	Weapon: Knife	5	10.64
	Serious Injury: Yes	8	17.02
	Serious Injury: No	39	82.98

Variable	Subcategory Details	Frequency (n)	Percentage (%)
Verbal Violence	Perpetrator Gender: Male	47	100
	Perpetrator Age: <20	8	28.57
	Perpetrator Age: 21-30	14	50
	Perpetrator Age: 31-40	6	21.43
	Experienced	185	62.5
	Not Experienced	111	37.5
	Frequency: 1-2 times	25	13.51
	Frequency: 3-4 times	102	55.14
	Frequency: >4 times	58	31.35
	Type: Insult	121	35.91
	Type: Ridicule	70	20.77
	Type: Humiliation	54	16.02
	Type: Bullying	31	9.23
	Type: Threat	22	6.53
	Type: Profanity	18	5.34
	Time: Morning	56	23.43
	Time: Evening	97	40.59
	Time: Night	86	35.98
	During Admission: Emergency	68	36.76
	During Admission: Ward	78	42.16
	Post Admission: Ward	18	9.73
	During Discharge	20	10.81
	Payment/Settlement	1	0.54
	Perpetrator Gender: Male	138	74.59
	Perpetrator Gender: Female	47	25.41
	Perpetrator Type: Patient	83	29.86
	Perpetrator Type: Family	172	61.87
	Perpetrator Type: Nurse	10	3.60
	Perpetrator Type: Non-nurse staff	5	1.80
	Others	8	2.88
	Perpetrator Age: <20	12	7.59
	Perpetrator Age: 21-30	10	6.33
	Perpetrator Age: 31-40	101	63.99
	Perpetrator Age: >40	35	22.15

Variable	Subcategory Details	Frequency (n)	Percentage (%)
Sexual Violence	Experienced	30	10.14
	Not Experienced	266	89.86
	Frequency: Monthly	5	16.67
	Frequency: Yearly	25	83.33
	Time: Morning	21	84.00
	Time: Night	4	16.00
	During Admission: Emergency	17	65.38
	Post Admission: Ward	9	34.62
	Perpetrator Gender: Male	28	87.5
	Perpetrator Gender: Female	4	12.5
	Perpetrator Type: Patient	17	36.17
	Perpetrator Type: Family	21	44.68
	Perpetrator Type: Nurse	8	17.02
	Perpetrator Type: Non-nurse staff	1	2.13
	Perpetrator Age: <20	8	30.77
	Perpetrator Age: 21-30	5	19.23
	Perpetrator Age: 31-40	13	50.00
Racial Violence	Experienced	40	13.51
	Not Experienced	256	86.49
	Frequency: Monthly	9	22.50
	Frequency: Quarterly	25	62.5
	Frequency: Yearly	6	15.00
	Type: Cultural	14	35.0
	Type: Verbal	5	12.5
	Type: Racial	12	30.00
	Type: Ethnic	9	22.50
	Time: Morning	18	38.30
	Time: Evening	16	34.04
	Time: Night	13	27.66
	During Admission: Emergency	4	10.0
	During Admission: Ward	13	32.5
	Post Admission: Ward	15	37.5
	Perpetrator Gender: Male	27	67.5
	Perpetrator Gender: Female	13	32.5
	Perpetrator Type: Family	22	55.00
	Perpetrator Type: Nurse	18	45.00

Variable	Subcategory Details	Frequency (n)	Percentage (%)
	Perpetrator Age: 21-30	1	5.56
	Perpetrator Age: 31-40	5	27.78
	Perpetrator Age: >40	12	66.67

Table 2 Association of physical, verbal, and racial violence with participants' demographic characteristic

Violence Type					95% CI		
	Variable	β	SE	OR	Lower	Upper	P-value
	Age						
	<30	−0.118	0.825	0.889	0.176	4.478	0.886
	30–35	−0.245	0.871	0.783	0.142–	4.311	0.778
	35–40	−0.539	0.841	0.583	0.116	3.031	0.521
	>40	-	-	-	-	-	-
	Education (MSc/BSc)	−1.020	0.415	0.361	0.160	0.814	0.014
	Work Experience						
	<5y	0.760	0.357	2.138	1.062	4.303	0.033
	5–10 y	0. 53	0.463	1.055	0.426	2.613	1.055
Physical Violence	Shift Work (Rotational/ Fixed)	−3.017	0.479	0.049	0.019	0.125	<0.001
	Age						
	<30	−0.262	0.721	0.769	0.187	3.164	0.716
	30–35	0.208	0.746	1.231	0.285	5.315	0.780
	35–40	0.993	0.716	2.699	0.663	10.984	0.166
	>40	-	-	-	-	-	-
	Education (MSc/BSc)	−0.851	0.396	0.427	0.196	0.929	0.032
Verbal Violence	Work Experience						
	<5y	−1.434	0.295	0.238	0.134	0.425	<0.001
	5–10 y	−1.376	0.344	0.253	0.129	0.495	<0.001
	>10 yrs	-	-	-	-	-	-
	Shift Work (Rotational/Fixed)	1.375	0.397	3.953	1.817	8.600	0.001
	Age						
	<30	−0.453	1.085	0.636	0.076	5.328–	0.676
	30–35	−0.921	1.103	0.398	0.046–	3.462	0.404
Racial Violence	35–40	0.221	1.110	1.247	0.142	10.982	0.842
	>40	—	—	—	—	-	—
	Marital Status (Married / Single)	1.318	0.362	3.736	1.837	7.597	<0.001

Table 3 Association between sexual violence and demographic characteristics of participants

Variable	X2	P-value	Descriptive (n, %)	
Age				
<30	17.285	0.001	13 (4.4%)	108 (40.6%)
30–35			13 (4.4%)	42 (15.8%)
35–40			4 (1.4%)	106 (39.8%)
>40			0 (0%)	10 (3.8%)

	(β)	SE	(OR)	(CI)95%		P-value
Education	-			Lower	Upper	
BSc	-1.458	0.401	0.233	0.106	0.511	<0.001
MSc						
Work Experience						
<5 y	−0.704	0.660	0.495	0.136	1.802	0.286
5–10 y	−2.700	0.575	0.067	0.022	0.208	<0.001
>10 y	-	-	-		-	–

Note:significant:<0.05

Table 4 Association of physical, verbal, sexual, and racial violence with nursing care quality in participants

Violence Type	Dimension of Care	With experienceViolence (Mean ± SD)	Without experience Violence (Mean ± SD)	Test Statistic	P-value
Physical Violence	Psychosocial	3.54 ± 0.47	3.90 ± 0.59	3507.5a	<0.001
	Communicational	3.50 ± 0.53	3.77 ± 0.48	3.435b	0.001
	Physical	3.25 ± 0.40	3.90 ± 0.55	2110.5a	<0.001
	Total Score	3.43 ± 0.36	3.88 ± 0.49	2783.5a	<0.001
verbal Violence	Psychosocial	3.75 ± 0.57	3.99 ± 0.59	7878.5a	0.001
	Communicational	3.67 ± 0.44	3.81 ± 0.57	2.261b	0.024
	Physical	3.74 ± 0.58	3.91 ± 0.57	8407.5a	0.009
	Total Score	3.73 ± 0.47	3.92 ± 0.52	7925.5a	0.001
Sexual Violence	Psychosocial	3.77 ± 0.33	3.85 ± 0.61	3594.0a	0.373
	Communicational	3.79 ± 0.32	3.72 ± 0.51	-0.734b	0.463
	Physical	3.49 ± 0.55	3.84 ± 0.57	2725.5a	0.004
	Total Score	3.67 ± 0.25	3.82 ± 0.52	3259.0a	0.100
Racial Violence	Psychosocial	3.75 ± 0.34	3.85 ± 0.61	4541.0a	0.250
	Communicational	3.72 ± 0.39	3.72 ± 0.51	0.028b	0.978
	Physical	3.63 ± 0.67	3.83 ± 0.58	4157.5a	0.056
	Total Score	3.70 ± 0.36	3.82 ± 0.51	4437.0a	0.175

Note:a Mann-Whitney test results; b Independent t-test results

Table 5 Association of physical, verbal, sexual, and racial violence with communication skills in participants

Violence Type	Communication Skill	β (Beta)	SE	OR	CI(95%)		P-value
					Lower	Upper	
Physical Violence	Receiving & Sending Messages	-0.32	0.078	0.968	0.831	1.129	0.683
	Emotional Control	0.015	0.099	1.015	0.836	1.232	0.882
	Listening Skill	-0.293	0.114	0.746	0.597	0.933	0.010
	Insight into Communication Process	0.192	0.109	1.212	0.979	1.501	0.078
	Assertive Communication	0.038	0.132	1.039	0.802	1.345	0.774
Verbal Violence	Receiving & Sending Messages	-0.043	0.053	0.958	0.863	1.064	0.421
	Emotional Control	0.099	0.059	1.104	0.983	1.240	0.095
	Listening Skill	-0.097	0.064	0.907	0.800	1.029	0.130
	Insight into Communication Process	-0.021	0.063	0.979	0.865	1.109	0.742
	Assertive Communication	0.080	0.090	1.083	0.909	1.292	0.371
Sexual Violence	Receiving & Sending Messages	-0.208	0.078	0.812	0.698	0.946	0.008
	Emotional Control	0.079	0.108	1.082	0.875	1.338	0.465
	Listening Skill	0.173	0.099	1.189	0.980	1.443	0.079
	Insight into Communication Process	-0.113	0.100	1.120	0.921	1.362	0.256
	Assertive Communication	0.392	0.138	1.480	1.129	1.941	0.004
Racial Violence	Receiving & Sending Messages	0.016	0.072	1.017	0.883	1.171	0.820
	Emotional Control	-0.089	0.087	0.915	0.771	1.085	0.308
	Listening Skill	0.067	0.085	1.069	0.906	1.262	0.429
	Insight into Communication Process	0.162	0.090	1.176	0.985	1.404	0.072
	Assertive Communication	0.582	0.141	1.789	1.357	2.359	0.000