Research Paper

The Relationship Between Verbal Violence and Psychological Stress Among Nurses

Hayder Najm Abd[1*], **Safi Dakhil Nawam**[2]

1. Technical Institute-Suwaira, Middle Technical University, Wasit, Iraq.
2. Department of Psychiatric Mental Health Nursing, College of Nursing, University of Kerbala, Karbala, Iraq.

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ABSTRACT

Objectives: Verbal abuse among healthcare professionals is a pervasive problem and workplace violence (WPV) is a prevalent phenomenon in the global healthcare business. This study aims to examine the relationship between verbal violence and psychological stress in Wasit City, Iraq.

Methods: A correlational-descriptive study was conducted using a convenient sample of 248 nurses in Wasit City, Iraq. The data collected from November 5, 2023, to February 7, 2024, were based on a dual-part self-report questionnaire. The first part consisted of questions about participants' traits, the second part covered verbal abuse in the health sector survey, and the third part included a job-related stress scale. Spearman's rank correlation coefficient of variance analysis was used for the data analysis.

Results: The mean age for nurses is 29.6±6 years, and 53.6% of 46.4% were men. Approximately 49.2% of the nurses were exposed to moderate levels of verbal violence, as defined using the job-related stress scale. The mean psychological stress between men and women (63.7%) significantly perceived moderate psychological stress in the workplace. A strong positive relationship is observed between verbal violence and psychological stress among nurses at P=0.001. As exposure to verbal violence increased, stress levels also increased.

Discussion: Nearly half of the nurses in this study experienced verbal abuse, and over half experienced psychological stress. The two have a close relationship. This implies a relationship between verbal abuse directed against nurses and stressful work environments. Future studies should examine this cause-and-effect link. Furthermore, since some registered nurses reported higher rates of violence than others, further studies should examine how an individual's traits or workplace environment affect risk.

*** Corresponding Author:**
Hayder Najm Abd
Address: *Technical Institute-Suwaira, Middle Technical University, Wasit, Iraq.*
Tel: *+96 (47) 808265400*
E-mail: *hayder_najm@mtu.edu.iq*

Highlights

- Nearly half of the nurses in this survey experienced verbal abuse.
- More than half of the nurses reported moderate emotional stress.
- A robust positive correlation was observed between stress and verbal violence.
- The workplace environment may impact the potential for verbal violence.
- Further research is needed to understand the cause-and-effect relationship.

Plain Language Summary

This study examined the impact of verbal abuse by other patients and staff members on nurses' stress levels. More than half of the nurses who responded to the survey said that they were victims of verbal abuse. The survey determined that these two factors have a substantial correlation. This study indicates that making nursing work environments safer is crucial, even if it does not say which is worse: Abuse or stress. Further research is required to develop strategies that effectively stop verbal abuse directed at nurses.

Introduction

Verbal abuse among nurses is a growing problem that negatively affects personal well-being and work productivity. Language that is demeaning, insulting, or disrespectful is considered verbal abuse in this study. It may also involve threats of bodily or sexual damage or other unfavorable outcomes [1, 2].

Workplace violence (WPV), encompassing both physical and verbal abuse, is a significant concern for healthcare institutions worldwide. Nurses, due to the nature of their interactions, are frequently targeted [3, 4]. Owing to the nature of their interactions, nurses are frequently targeted [5, 6]. Previous research indicates that over half of healthcare workers experience at least one episode of WPV during their careers, with a quarter of these incidents occurring in hospitals [7]. In 2018, healthcare employees accounted for over 70% of non-lethal workplace injuries and illnesses caused by violence [4, 8].

Research suggests that verbal abuse in hospitals can negatively impact both patients and nurses, affecting the quality of care and health outcomes [9]. Nurses' focus on work may increase errors [10, 11], hinder communication, and compromise ethical practice [5]. The Canadian Nursing Advisory Committee reported that healthcare professionals were more likely to experience WPV than law enforcement officials [12, 13].

Approximately 73.3% of emergency department (ED) nurses reported experiencing non-physical violence, highlighting the high frequency of attacks in this setting [14, 15]. Research suggests that bullying and non-physical violence are particularly prevalent in the Middle East [16, 17].

Studies have documented the prevalence of various forms of WPV, exceptionally verbal abuse, among nurses worldwide [12, 13]. The rates reported in Iran (27%) [5] are significantly lower than those found in other countries, such as Egypt (67.2%), Australia (61%), Thailand (54%), Bulgaria (75.8%), Turkey (61%) and South Africa (61%) [14], indicating a high frequency of attacks against ED nurses [15]. Of the ED nurses, 73.3% reported experiencing non-physical violence, highlighting the high frequency of attacks in this setting [15]. Research suggests that bullying and non-physical violence are particularly prevalent in the Middle East [16, 17].

Stress arises when the demands of a situation exceed an individual's resources or capabilities, leading to detrimental physical and emotional reactions [18]. Higher stress levels are typically associated with more significant discrepancies between an individual's capacity and the external stressors they face [19]. Raising awareness among faculty regarding the prevalence of stress among nursing students is crucial. Additionally, teaching and encouraging students to utilize effective stress management techniques can reduce the likelihood of future stress while working in hospitals [20].

Work-related stress imposes a financial burden on businesses and society due to lost productivity and increased healthcare costs. The demanding nature of nursing, including heavy workloads, dealing with death and dying, staff conflicts, resource shortages, and inadequate organizational support, is globally recognized as a significant source of stress [21, 22]. Increased stress levels can increase the risk of developing WPV. Workplace environments characterized by high job demands, limited social support, shift work, little job control, and frequent confrontations with coworkers are more likely to see increased levels of violence as negative stress escalates [23].

The relationship between work stress and threats to physical and mental health is well-established [19, 21]. Work-related stress imposes a financial burden on businesses and society due to lost productivity and increased healthcare costs. The demanding nature of nursing, including heavy workloads, dealing with death and dying, staff conflicts, resource shortages, and inadequate organizational support, is globally recognized as a significant source of stress [7].

The intense workload, dealing with death and dying, staff conflicts, resource shortages, and inadequate organizations globally recognize nursing as a highly stressful profession [21, 22]. Increasing stress levels can pose a risk to WPV. WPV may be more likely in situations where there are many professional pressures, such as shift work, limited social support, high job demands, little job control, and confrontations with coworkers. When harmful stress levels increase, violence also increases [23].

A strong correlation existed between stress and WPV, with work-related stress significantly influencing both the frequency of WPV and the impact of the work environment on these incidents. This study aimed to investigate the relationship between verbal abuse and psychological stress among nurses working in Wasit City, Iraq.

Materials and Methods

Design, population, and setting

A correlation study was conducted on nurses from two large teaching hospitals in Wasit City from November 5, 2023, to February 7, 2024. Data were collected from nurses working in two teaching hospitals in Wasit City (Al-Zahraa Teaching Hospital and Al-Karama Teaching Hospital). The target population comprised 700 nurses working in two teaching hospitals. The number of nurses from each hospital was 168 and 80, respectively, and the minimum sample size was 148 nurses, considering the possibility of incomplete responses from the participants.

A sample of 100 nurses was selected to represent the sample population better and obtain more accurate results. The researcher chose samples from two teaching hospitals in the Wasit Governorate due to their quick accessibility. The study eliminated nurses who declined to participate or answered “no” to at least 15% of the questionnaire questions.

Data collection instruments

Data were collected using a self-report questionnaire consisting of three parts. The first section included participant characteristics, such as age, sex, education level, socioeconomic status, work shift, number of hours in a shift, role in the department, years of experience in an emergency hospital, and years of experience in responding to a violent incident. The second part of the instrument was the verbal violence questionnaire (VVQ), derived from the WPV in the health sector questionnaire.

VVQ

The subsequent component of the instrument included utilizing a VVQ, adapted from the WPV in the health sector questionnaire. This questionnaire was used in the current study, taken from Al-Omari (2015) who translated Arabic from Jordan [24]. Its items were adapted to the target population and developed as a joint program of the International Labor Office, World Health Organization (WHO), the International Council of Nursing (ICN), and Public Service International (PSI). It consists of 28 distributed items. The questionnaire included verbal assaults and was investigated using six items from the Al-Omari study [24]; six items for verbal threats from the Muhammed Ebrahim and Issa study [25]; seven items for sexual assaults or harassment; and seven items for the source of verbal violence Hamzah et al. [26], all based on a five-point Likert scale. The questionnaire designed the responses: Never=0, once=1, twice=2, thrice=3 and four or more times=4.

Job-related stress scale (JSS)

The third part of the instrument’s JSS originated from a previous study [14]. It consisted of 26 items. All items were rated on a three-point Likert-type scale (never stressful=1, sometimes stressful=2, severely stressful=3). This scale was adopted from a previous Iraqi study [14]. A stress questionnaire was developed by in-

cluding and refining scales from similar prior research [27].

Validity and reliability of instrument

To make the questionnaires more valid, a panel of 15 professionals from the universities of Kerbala, Baghdad, Babylon, and Kufa evaluated and confirmed the content validity of the VVQ and JSS. Changes in the scale and modifications were made based on experts' recommendations to fit the sample best. Many items of the JSS and VVQ were modified to slang language; it is difficult for the researcher to see matters from the sample's viewpoint because people are different.

Before data collection was gathered, a pilot study was accomplished. It was applied to nurses working in two teaching hospitals in Wasit City. The mean time taken to complete the questionnaires was 20-25 minutes. The pilot study was conducted from December 20, 2023, to December 30, 2023.

The reliability of the items was assessed by calculating Cronbach's α coefficient. This coefficient was applied using IBM SPSS software, version 26.0. The results of the pilot study showed acceptable validity. The results revealed a Cronbach's α of (verbal violence=0.893, psychological stress=0.823). The results showed that the questionnaires were internally consistent and reasonably measurable. Statistical analyses included Spearman's rank correlation coefficient to evaluate the study's methodology.

Statistical analysis

SPSS software, version 26 was used to analyze the data. We calculated frequencies and percentages for categorical data and Mean±SD for descriptive statistics. We determined the relationship between the independent variables using Spearman's rank correlation coefficient: Dependent variables and verbal aggression caused mental strain. The model was loaded to do this, and all variables with P<0.5 univariate analysis were examined. We first transformed the categorical data into indicator variables to analyze sample subgroups before conducting Spearman's rank correlation. A significance threshold of approximately 0.05 was obtained.

Results

While correlations and percentages were provided, the analyses revealed a weak relationship between most professional characteristics (such as years of experience, shift hours, and role) and psychological stress. This suggests that factors other than these characteristics may play a more significant role in nurses' psychological stress. Critics may argue for more robust statistical analyses or consideration of potential confounding variables that could better elucidate these relationships. This study has some limitations. While exploring more complex analyses, such as regression models, limitations in sample size made them less suitable for this study. However, a weak but significant correlation emerged between years of experience working in an emergency unit and psychological stress. Further research is needed to explore this relationship and account for potential confounding variables, such as workload, exposure to critical events, and access to social support within the emergency unit environment.

A total of 248 nurses of 400 filled out the questionnaires and returned them to the researchers. There were 133 female participants, compared to 115 male participants (more female participants). The mean age of the nurses was 29.6±6 years, and more than half (64.5%) were 20–29 years old (Table 1). Most participants had a diploma degree in nursing (43.5%), and 33.5% had a bachelor's degree in nursing (Table 1).

Nurses exposed to violence reported high levels of anger (80.6%), sorrow (69.4%), and reduced work enthusiasm (58.1%) (Table 2), further underscoring the emotional toll of verbal abuse.

Approximately half of the nurses (49.2%) experienced a moderate level of verbal violence, whereas 46% experienced a low level of VV (mean of VV=27.1±12.4). More than half (63.7%) of the nurses reported moderate psychological stress. However, the mean PS was (Mean±SD, 57.5±6.9) (Table 3). As exposure to verbal violence increased, the level of stress increased.

A strong positive relationship is observed between exposure to verbal violence and psychological stress among nurses (P=0.001) (Table 4). However, Spearman's correlation showed that the Mean±SD of the average years of experience in nursing for nurses were 7±7 years; 47.5% of them had 6–10 years of nursing experience. 81.9% of nurses have 1-3 years of experience in emergency units; the average years refer to 2±1 years in emergency units. The shift hours reveal that 43.7% of nurses work for six hours, 40.7% work for 18 hours and only 15.4% work for seven hours. The shift call indicated that 43.2% of nurses work in the morning shift and 41.9% work during the night shift. Regarding their role in the department,

Table 1. Socio-demographic characteristics

Characteristics		No. (%)
Age (y) (Mean±SD, 29.6±6)	20-29	160(64.5)
	30-39	54(21.8)
	40-49	33(13.3)
	≥50	1(0.4)
	Total	248(100)
Sex	Male	115(46.4)
	Female	133(53.6)
	Total	248(100)
Marital status	Unmarried	110(44.4)
	Married	120(48.4)
	Divorced	9(3.6)
	Separated	4(1.6)
	Widowed/er	5(2)
	Total	248(100)
Nursing qualification levels	Secondary school	47(19)
	Diploma	108(43.5)
	Bachelor	83(33.5)
	Postgraduate	10(4)
	Total	248(100)

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87.9% of nurses reported that their role is staff nurse, and only 12.1% are supervisors (Table 4).

Table 5 presents the correlations between the different professional characteristics and nurses' psychological stress levels. A weak and negligible relationship is observed between stress and years of nursing experience (r^s=0.09, P=0.13). A weak but significant relationship is observed between stress and years of experience working in an emergency room (r^s=0.12, P=0.048). No apparent relationship is observed between stress and shift working hours (r^s=0.01, P=0.85). No apperant connection is observed between stress and shift call (r^s=0.035, P=0.58). In contrast, a weak and negligible relationship is observed between stress and the role in the department (r^*=0.075, P=0.24) (Table 5). Hence, most professional characteristics have a weak and statistically negligible relationship with nurses' psychological stress, except for years of experience in emergency units, which reveals a modest but substantial correlation.

Table 6 presents statistical information about the regression analysis that examines factors contributing to total stress scaling. Age, workplace, shift calls, and total duty hours have statistically significant negative relationships with stress. This means that higher values for these variables predict lower stress scores. According to this model, sex and marital status do not have statistically significant effects on stress. The remaining variables (educational level, years of experience, duration of work in the ED and role) showed no significant relationship with stress.

Table 2. Perceived nurses' feelings after violence

Feelings	No. (%)	
	No	Yes
Angry	48(19.4)	200(80.6)
Sorrow	76(30.6)	172(69.4)
Aggrieved	117(47.2)	131(52.8)
Disappointed	101(40.7)	147(59.3)
Humiliation	212(85.5)	36(14.5)
Reduced work quality	216(87.1)	32(12.9)
Reduced work enthusiasm	104(41.9)	144(58.1)
Feeling guilty	220(88.7)	28(11.3)
Scared	194(78.2)	54(21.8)
Unable to concentrate	92(37.1)	156(62.9)
Insomnia	122(49.2)	126(50.8)

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Discussion

This study was conducted to examine the frequency and relationship between physiological stress in hospital departments and verbal aggression, one of the most familiar episodes in the healthcare system. Approximately half of the nurses who participated in this study reported having experienced verbal abuse, and more than half reported feeling anxious. The results revealed that, among study participants in the teaching hospital, 49.2% had experienced verbal abuse, and 63.7% experienced psychological stress in the previous period. Furthermore, all categories showed a relationship between verbal violence and job-related stress factors, with individuals with a history of violence exhibiting significantly higher levels of verbal violence. Compared to previous studies, the same results were observed [14, 28].

In this study, we can account for the high rate of WPV by pointing to risky vocations that require considerable physical labor and low control over tasks. Previous research revealed that the relationship between WPV and stress is unaffected by factors, such as age, marital status, occupation, and job experience. Our results are consistent with previous studies [29]. Our research suggests that time shift, sex, and workplace environment are crucial for WPV [29]. As previously established, stress may intensify violence by making staff members more vulnerable to aggressive cues [30]. In particular, stress results in less tolerance and increased ego depletion [31]. This makes people more likely to be violent, resulting in an aggressive feedback loop [32]. This is consistent with our results, which revealed that men experienced more violence than women (we found that males experienced more WPV than women). Additionally, this claim is consistent with the Whittington and Wykes cyclical model of nurses' WPV [33]. According to this hypothesis, stress brought on by seeing violence results in subpar employee performance and the adoption of behaviors that increase the likelihood that violence will recur.

Additionally, WPV is more acceptable to men than women in some urban settings. As a result, given the patient's cultural background, intervention should be anticipated. One of the main conclusions of our study was that WPV and stress vary depending on the work environment. This finding aligns with prior research highlighting the critical influence of mental health workers' work environments on stress perception and violent occurrences [34, 35]. WPV should also consider sleep deprivation. Working long shifts at night causes people to lose more tolerance and self-control, increasing antagonism and WPV [36]. Our results support this process by demonstrating variations in bullying and harassment throughout history. Although our study has several advantages, such as a sizable sample size and strong statistical power, the results are less generalizable due to the nonrandom sampling technique we employed. Fur-

Table 3. The arrangement of nurses based on their professional attributes

Characteristics		No. (%)
Workplace (hospital)	Al-Karama	80(80)
	Al-Zahra'a	168(67.7)
Years of experience in nursing (Mean±SD=7±7)	1-5	25(10.1)
	6-10	118(47.5)
	11-15	50(20.2)
	16-20	33(13.3)
	21 and more	22(8.9)
Years of experience in the emergency unit (Mean±SD=2±1)	1-3	203(81.9)
	4-6	40(16.1)
	7 and more	5(2)
Shift working hours	6	109(43.7)
	7	38(15.4)
	18	101(40.7)
Shift call	Morning	107(43.2)
	Evening	37(14.9)
	Night	104(41.9)
	Total	248(100)
Role in department	Staff nurse	218(87.9)
	Supervisor	30(12.1)
	Total	248(100)

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thermore, as we employed one method, the data gathered via self-report questionnaires are susceptible to social desirability bias. We suggest conducting more research in Iraqi hospitals to identify potential stressors and risk factors, which could aid policymakers in devising more effective preventative measures to reduce WPV and enhance employee happiness. Additionally, a study that examined the relationship between stress and sex, marital status and nursing certification was lacking.

Our research showed a strong statistical relationship between years of experience in an emergency unit and psychological stress at P=0.048. Numerous occupational

Table 4. Relationship verbal violence and psychological stress

Pearson Correlation		Stress	Verbal Violence
Stress	Correlation	1	0.376**
	Sig. (2-tailed)		0.001

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*Correlation is significant at the 0.05 level (2-tailed), **Correlation is significant at the 0.01 level (2-tailed).

Table 5. The relationship among nurses' psychological stress and their professional variables

Variables		Psychological Stress			Relationship
		Low	Moderate	High	
Years of experience in nursing	1-5	1	17	7	r^s=0.09 P=0.13
	6-10	5	79	34	
	11-15	2	32	16	
	16-20	2	17	14	
	21 and more	0	13	9	
Years of experience in an emergency unit	1-3	7	134	62	r^s=0.12 P=0.048
	4-6	1	22	17	
	7 and more	2	2	1	
Shift working hours	6	5	74	30	r^s=0.01 P=0.85
	7	0	20	18	
	18	5	64	32	
Shift call	Morning	5	75	27	r^s=0.035 P=0.58
	Evening	0	19	18	
	Night	5	64	35	
Role in department	Staff nurse	9	142	67	r^*=075 P=0.24
	Supervisor	1	16	13	

r^s: Spearman correlation coefficient, r^*: Biserial correlation coefficient.

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Table 6. The relationship between work characteristics and stress levels

Model	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	Std. Error	Beta		
Constant	48.070	3.180		15.119	0.000
Age	2.245	0.846	0.239	2.655	0.008
Sex	1.209	0.870	0.087	1.390	0.166
Marital status	-0.351	0.628	-0.040	-0.558	0.577
Educational levels	0.007	0.552	0.001	0.012	0.990
Work place	2.345	0.938	0.158	2.501	0.013
Experience (y)	0.473	0.390	0.076	1.213	0.226
Experience in emergency units (y)	-0.624	1.309	-0.041	-0.477	0.634
Hours of working	-0.650	0.206	-0.543	-3.152	0.002
Duty shift	3.260	1.291	0.435	2.524	0.012
Role in department	0.933	1.378	0.044	0.677	0.499

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factors had a considerable impact on nurse's psychological stress. Research has demonstrated that nurses' mental health is significantly impacted by issues, such as work-family conflict [37], perceived stress from care for COVID-19 patients [38] and work-related stress [39]. Additionally, nurses' levels of psychological stress are influenced by their professional self-perception and attitudes toward electronic counseling [40]. It is essential to examine nurses' resilience levels to improve their well-being, as a correlation is observed between psychological resilience and professional quality of life [41]. Building supportive settings, offering relevant training programs, and improving nurses' job happiness and mental health hinges on understanding and resolving these issues.

Conclusion

This study investigated the relationship between verbal abuse and psychological stress experienced by nurses working in two teaching hospitals in Iraq. More than half of the nurses said that they had experienced mild psychological stress, and nearly half said they had experienced verbal abuse. A significant positive relationship is observed between the two variables.

These results are consistent with previous studies indicating that verbal abuse causes a great deal of stress among nurses. This study also implies that variables, such as shift schedules and work environments, may affect the likelihood of verbal abuse. Nevertheless, the non-random sampling technique constrains the generalizability of the results.

Subsequent investigations should investigate these correlations more deeply, encompassing plausible origins and how the workplace shapes risks. With this information, initiatives can be created to lessen WPV and enhance nurses' wellbeing.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of University of Karbala, Karbala, Iraq (Code: Uok.con.23.011). The College of Nursing Ethics Committee reviewed the study instruments (questionnaire) after obtaining the study's title and consented to its conduct. The Declaration of Helsinki conducted the study protocol. Informed consent was obtained from all participants.

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Authors' contributions

All authors contributed equally to the conception and design of the study, data collection and analysis, interpretation of the results, and drafting of the manuscript. Each author approved the final version of the manuscript for submission.

Conflict of interest

The authors declared no conflict of interest.

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