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The mediating role of psychological resilience in the relationship between workplace violence and job stress among healthcare workers

Vasfiye Bayram Değer^{1*} , Sema Çifçi¹ and Havva Kaçan²

Abstract

Background Workplace violence is a widespread, global public healthcare concern among healthcare employees. The present study aimed to examine the mediating role of psychological resilience in the relationship between workplace violence and job stress among healthcare employees.

Materials and methods The population of the study, which had a descriptive and correlational design, consisted of all healthcare employees working in a hospital in the southeast of Turkey, and the study was completed with 515 healthcare employees. The data were collected between 20.05.2024 and 15.09.2024 using a face-to-face interview technique with a data form consisting of 4 sections. The data collection form consists of 4 sections: socio-demographic characteristics, Psychological Violence Behaviors at Workplace Scale, A Work Stress Scale-20, Brief Psychological Resilience Scale. The data were then analyzed by using the SPSS software. Descriptive statistics and parametric methods, Pearson Correlation Analysis, and Linear Regression were used in the evaluation of the data, and hierarchical regression analyses regarding the mediation effect were made by using the PROCESS Model 4. A p-value < 0.05 was accepted as significant in the analyses.

Results A total of 55.9% of the participants were female and 44.1% were male. When the occupational distribution was evaluated, the largest group was nurses with 55.3%, followed by midwives with 12.6% and physicians with 7.4%. The total mean score on the Scale of Psychological Violence Behaviors in the Workplace was 37.27 ± 39.51 , the total mean score on the Short Psychological psychological resilience Scale was 20.41 ± 4.32 , and the total mean score on the Job Stress Scale was 46.51 ± 20.72 . A negative and significant relationship was detected between the psychological psychological resilience scale total score and the total score of Psychological Violence Behaviors in the Workplace. A positive and highly significant relationship was detected between the total score of the Job Stress Scale and the total score of Psychological Violence Behaviors in the Workplace. A negative and significant relationship was detected between psychological resilience and job stress. The effect of psychological violence in the workplace on psychological resilience was significant.

Conclusion This study suggests that workplace violence increases job stress by weakening psychological resilience. Psychological resilience plays a partial role in moderating this effect. Reducing the negative impacts of Job Stress

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and psychological violence on individuals and protecting and developing the psychological resilience of healthcare staff is a critical priority for the well-being of employees and for institutions to achieve their sustainable targets.

Keywords Healthcare employees, Workplace violence, Psychological violence, Job stress, Psychological resilience, Mediation

Introduction

Violence is “one of the most uncontrolled social phenomena of contemporary society, which is present in the lives of all nations affecting all ages, social professions, and ethnic groups. It is also a means of social acquisition” [1]. Violence is defined as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation” in the World Health Organization’s World Violence and Health Report [2]. Among the types of violence, psychological violence is “often in the form of verbal abuse that shows fear and helplessness and might also be in the form of physical and social isolation, attack, shame, criticism, and harm mostly done verbally to control the individuality of the other, to disregard, humiliate, intimidate or embarrass him/her” [3]. WHO defines psychological violence as “attitudes and behaviors that harm the physical, psychological, moral and social development of individuals or groups by using force against them” [2]. The content of psychological violence might include lack of cooperation, attacking an individual’s integrity or professional reputation, blaming team members when something goes wrong, blaming team members in front of a patient or the patient’s family members, lack of empathy, making insinuations, or breaking privacy [4].

Workplace violence is a prevalent, global public healthcare concern among healthcare employees and includes occupational abuse (physical, sexual, verbal, and psychological), threats, harm, and workplace harassment among healthcare employees [5, 6]. When it comes to Turkey, recent studies indicate the increasing prevalence and negative psychological outcomes of workplace violence and mobbing [7–9].

The University of Iowa Injury Prevention Research Center divided workplace violence into four basic types as Type I, Type II, Type III, and Type IV. Types II and III are most common in the healthcare sector [10]. While Type I indicates intention to violence, Type II includes violence by a service receiver. Type III involves violence by an employee towards another employee whereas Type IV includes violence of an individual associated with the person but not the institution. Type II and III are the most common types experienced by health care staff. Psychological harassment in the workplace is defined as

psychological terror or mobbing in working life including hostile and immoral behaviors directed at another individual by one or more people, which puts that individual in a helpless and defenseless position preventing the individual from getting out of the helpless situation with ongoing activities [11]. These behaviors must be done with a certain frequency (statistically at least 7 times a week) and for a long period (at least six months). The concept of mobbing includes “all kinds of threats, violence, exclusionary, malicious, humiliating behaviors systematically applied to employees by their subordinates, superiors or equal-status work/work colleagues” [12]. There are three criteria in the definition of the concept of mobbing (“frequency”, “continuity” and “power differences”). “Hostile behaviors performed frequently and for a long time cause serious psychological, psychosomatic, and social problems” [12]. As a result of Psychological Violence Behaviors in the Workplace, the victims of psychological violence and the institutions they work in, and then the relatives of the people exposed to psychological violence and the social structure are affected the most. Stress might result in Psychological Diseases, Physical Diseases, Accidents, Disabilities, Isolation, Pain of Separation, Loss of Professional Identity, Loss of Friendships, Suicide or Murder in individuals as well as Pain of Helplessness, Chaos and Conflicts, Pain of Separation and Divorce having profound impacts on children in families. In institutions, stress might result in Disagreements, Unhealthy Institutional Culture, Low Motivation, and Restricted Creativity. If stress is in the social structure, it might also result in Unhappy Individuals and Political Indifference [13].

By nature of the profession, healthcare employees usually work in areas that involve night work, have the risk of frequent shifts because of staff shortages or increased patient loads, where a crisis environment might occur at any time, and where critical decisions must be made. Such situations might increase the risk of experiencing psychological violence [14]. Psychological violence might cause negative effects on the quality of life, increase work-related stress [15], emotional exhaustion [16], and negative situations that might lead to leaving the job [17].

As an important concept in coping with psychological violence, psychological resilience is defined as the individual’s ability to mobilize resources in coping with difficult situations and to cope positively with difficult

situations [18]. The American Psychological Association explained psychological resilience as the process of adaptation of individuals to stress factors such as distress, a distressing event, threat, etc. [19]. Although previous studies reported a negative relationship between psychological violence experienced by nurses at work and psychological resilience, studies evaluating the relationship between psychological violence against nurses and psychological resilience are limited in the literature [20, 21]. It is emphasized that one of the most important components that causes stress is work life and that it might also occur in healthcare staff because of work [22]. Verbal and physical abuse by patients, bullying by colleagues, risk of being sued for the service provided, insufficient resources, increased fear of attack during visiting hours, low manager/superior support, role conflicts with other professional groups, heavy workload, low job control, patient expectations, hiding negative emotional reactions, working in shifts, increased administrative workload are the stress factors that might occur in the workplace for healthcare staff [23]. Stress has always been at the forefront in the healthcare sector, and it has been observed that the stress levels of healthcare employees are increasing in developed and developing countries [24, 25]. It has been reported in previous studies that healthcare employees face more depression, stress, and stress-related healthcare concerns when compared to other professional groups [26, 27]. Chronic fatigue syndrome, cardiovascular diseases, and musculoskeletal pain are also seen at increasing rates in healthcare staff [28]. Also, with the increased clinical demands on healthcare staff, some negative outcomes in the work environment (e.g., long working hours, lack of support from superiors and colleagues), job stress contributes negatively to the quality of working life and the nature of work [29]. High job stress in healthcare staff has many negative social consequences regarding the provision of healthcare services [30]. In this context, there is evidence that prevention interventions aimed at preventing the negative outcomes associated with job stress yield positive results [2, 31]. Understanding different types of exposure to occupational violence might help develop prevention strategies and interventions that are better suited to the needs of healthcare employees [5].

The present study aimed to examine the mediating role of psychological resilience in the relationship between workplace violence and job stress among healthcare employees. This study is novel in the sense that it aims to equip healthcare policy makers and practitioners to understand the mechanisms behind workplace violence, job stress and psychological resilience and assume responsibilities and develop effective strategies to mitigate the experience of job stress and workplace violence while strengthening

psychological resilience. To achieve this aim, answers to the following research questions were sought:

1. What are the levels of psychological violence behaviors, job satisfaction and psychological resilience among participants?
2. Are there significant correlations between the total and dimension scores of psychological violence behaviors, job satisfaction and psychological resilience among participants?
3. Does psychological resilience mediate the relationship between workplace violence and job stress?

Materials and methods

Study design and participants

The study had a descriptive and correlational design. The study was conducted in the city of Mardin at a Training and Research Hospital in the southeast of Turkey, between 20.05.2024 and 15.09.2024. Mardin, which has the status of a large province and has a surface area of 8.858 km², had a population of 888.874 in 2024 [32]. There is only one public hospital (Mardin Training and Research Hospital) and two private hospitals providing healthcare services in the city.

Population and sample

The population of the study consisted of all healthcare staff (approximately 2500 healthcare staff) working in Mardin Education and Research Hospital. The sample size was calculated with the formula as $n = 2500 (1.96)^2 (0.5) (0.5) / (0.5)^2 (2500 - 1) + (1.96)^2 (0.5) (0.5) = 333$ with a 95% Confidence Interval and $\pm 5\%$ sampling error [33]. All healthcare employees who volunteered to participate in the study from each unit of the hospital were included in the study and the study was completed with 515 healthcare staff.

Data collection

The data were collected by using the face-to-face interview technique using a data form consisting of 4 sections. The data collection form consisted of 4 sections (the Socio-Demographic Characteristics, the Scale of Psychological Violence Behaviors in the Workplace, the Job Satisfaction Scale-20, and the Short Psychological resilience Scale). The data collection form was applied to the study participants without interruption, at appropriate times that did not disrupt patient care and work.

Scales used in the study

The Scale of Psychological Violence Behaviors in the Workplace (SPVBIW)

The Scale of Psychological Violence Behaviors in the Workplace (SPVBIW), developed by Yıldırım and Yıldırım (2008) [34], assesses behaviors intended to discourage individuals and reduce work performance in the

workplace. The scale comprises three sections. The first section, consisting of 33 items across four sub-dimensions—Isolation of the Individual, Attack on Professional Status, Attack on Personality, and Direct Negative Behaviors—evaluates the frequency of psychological violence behaviors using a 6-point Likert scale (0 = Never, 1 = Once, 2 = A Few Times, 3 = Sometimes, 4 = Frequently, 5 = Always). Total scores range from 0 to 165, with a mean score ≥ 1 per item (total score $\div 33$) indicating exposure to psychological violence (mobbing). The second Sect. (33 items) examines the physiological, psychological, and social effects of encountering such behaviors, while the third Sect. (8 items) assesses reactions to these behaviors, both using a 6-point Likert scale (0 = Never, 1 = Rarely, 2 = Sometimes, 3 = Frequently, 4 = Often, 5 = Always) with evaluations based on percentages. The scale demonstrates high internal consistency, with a Cronbach's alpha of 0.93 for the overall scale, 0.921 for the second and third sections, and 0.952–0.982 for the first section's sub-dimensions (Isolation: 0.982, Personality: 0.976, Professional Status: 0.958, Direct Negative Behaviors: 0.969) [34].

Job Stress Scale-20 (JSS-20)

Developed by Tatar (2020) [35], this 20-item, single-dimension scale measures job stress using a 5-point Likert scale (1 = Not Appropriate at All to 5 = Completely Appropriate). Total scores range from 20 to 100, with higher scores indicating greater perceived job stress. The scale has no reverse-coded items and is validated with a Cronbach's alpha of 0.91 and a test–retest correlation of 0.88 (conducted two weeks apart), demonstrating high reliability [35].

Short Psychological Resilience Scale (PRSL)

Developed by Smith et al. (2008) [36] and adapted to Turkish by Doğan (2015) [37], this 6-item, single-dimension scale measures resilience using a 5-point Likert scale (1 = Not Appropriate at All to 5 = Completely Appropriate). Items 2, 4, and 6 are reverse-coded, and total scores range from 6 to 30, with higher scores indicating greater resilience. The Turkish adaptation has a Cronbach's alpha of 0.79, indicating good reliability [37].

Evaluation of data

The data obtained in the study were analyzed by using the SPSS (Statistical Package for Social Sciences) program. Descriptive statistical methods such as numbers, percentages, mean and standard deviation were used in the evaluation of the data.

The normality of the data was assessed using the Shapiro–Wilk and Kolmogorov–Smirnov tests. The skewness values ranged from 0.309 to 1.510, while the kurtosis

values ranged from -0.497 to 1.318 [38]. Skewness values within ± 2 and kurtosis values within ± 3 indicate an approximately normal distribution [38]. The Shapiro–Wilk test and Kolmogorov–Smirnov test further confirmed that the variables met the assumptions of normality. For instance, for SPVBIW Total, the Shapiro–Wilk test was non-significant, $W = 0.982$, $p = 0.065$, and the Kolmogorov–Smirnov test was $D = 0.032$, $p = 0.072$, suggesting that the data followed a normal distribution. Similarly, for Short Psychological Resilience Total, $W = 0.987$, $p = 0.080$, and $D = 0.028$, $p = 0.094$, indicating no significant deviation from normality. As all variables demonstrated similar results ($p > 0.05$), parametric analyses were deemed appropriate for further statistical procedures.

Among the continuous variables of the study, Pearson Correlation Analysis, Linear Regression, and Hierarchical Regression Analyses regarding the mediation effect were used with the PROCESS Model 4 developed by Hayes (2013) [39] for SPSS. To examine the mediating role of psychological resilience in the relationship between psychological violence at work and job stress, we employed PROCESS Model 4. This model was chosen because it allows for the estimation of direct, indirect, and total effects within a single mediation framework while using ordinary least squares (OLS) regression. Given our objective of testing a single mediator without moderating effects, Model 4 was the most appropriate choice.

The effect of the mediator variable on the relationship between the independent and dependent variables was examined in the process model by obtaining the total effect, indirect, and direct effect scores. The analysis result was created using a 95% Confidence Interval and 5000 bootstrap samples.

Ethical aspects of the study

The study was approved by Mardin Artuklu University Non-Interventional Clinical Research Ethics Committee. Ethical permission (16.04.2024, 2024/4–29) and institutional permission (08.05.2024, E-68051626–770–243181406) were received from the hospital where the study was conducted on 08.05.2024. The study was conducted in line with the Helsinki Declaration and informed consent was obtained from the participants.

Limitations of the study

This study has several limitations that should be considered when interpreting the findings. First, the research was conducted exclusively with healthcare employees at Mardin Education and Research Hospital, a single public hospital in the city center of Mardin, Turkey. This specific setting limits the generalizability of the findings to other healthcare institutions, regions, or populations

with different cultural, organizational, or socioeconomic contexts. Second, the data were collected through self-reported questionnaires, which may be subject to response biases, such as social desirability or recall inaccuracies, potentially affecting the reliability of reported experiences of psychological violence. Third, the assessment of psychological violence was based on participants' perceptions rather than clinical diagnoses or objective measures, which may limit the precision of identifying workplace violence. These constraints indicate that the results are primarily applicable to the studied population and setting, and caution should be exercised when extending the findings to broader healthcare or societal contexts. To mitigate potential misinterpretation, we have ensured that the results are reported with statistical rigor, avoiding exaggerated claims, and are contextualized within the boundaries of the study's design and sample.

Results

The results on the descriptive characteristics of the healthcare staff included in the study are given in Table 1.

Table 1 shows the distribution of employees according to their descriptive characteristics. A total of 55.9% of the participants were female and 44.1% were male. When the occupational distribution was examined, the largest group was nurses with 55.3%, followed by midwives with 12.6%, and physicians with 7.4%. The rates of other occupational groups were lower, with technicians represented at 11.5%, medical secretaries at 7.8%, paramedics at 2.7% and physiotherapists at 1.9%.

The results on the marital status of the participants show that 53.6% were married and 46.4% were single. These rates show the diversity in the personal status of healthcare staff and the significant representation of married individuals in the sector. When the educational status was evaluated, it was seen that the majority of the employees had a high level of education. 68.2% of the participants had a bachelor's degree, 17.5% had an associate degree, 8.3% had a high school degree, and 6% had a postgraduate degree. This result emphasizes that healthcare services are generally performed with a high academic background.

When the age distribution was examined, it was found that 55.9% were between the ages of 20–30, and healthcare employees were predominantly composed of a young population. Also, 35.3% were between the ages of 31–40, 7.8% were between the ages of 41–50, and only 1% were 51 years old and over. Among the units worked, the rate of working in clinical (ward) units was at the highest level at 49.1%, while polyclinics (14%), emergency services (13.6%), and administrative units (9.3%) were other areas of intense work. It was also seen that the rate of

Table 1 The Distribution of healthcare employees according to descriptive characteristics

Groups	Frequency (n)	Percentage (%)
Sex		
Female	288	55.9
Male	227	44.1
Job		
Nurse	285	55.3
Midwife	65	12.6
Physician	38	7.4
Physiotherapist	10	1.9
Technician	59	11.5
Pharmacist	4	0.8
Paramedic	14	2.7
Medical Secretary	40	7.8
Marital status		
Married	276	53.6
Single	239	46.4
Educational Status		
High school	43	8.3
Associate Degree	90	17.5
License	351	68.2
Postgraduate	31	6.0
Age		
20–30	288	55.9
31–40	182	35.3
41–50	40	7.8
51 and over	5	1.0
Unit Worked		
Clinic (ward)	253	49.1
Policlinic	72	14.0
Intensive care	28	5.4
Emergency room	70	13.6
Radiological	12	2.3
Operating room	21	4.1
Administrative	48	9.3
Lab	11	2.1
Total Service Length in the Profession		
1–5 Years	256	49.7
6–10 Years	158	30.7
11–15 Years	57	11.1
16 Years and Above	44	8.5
Career Choice		
Willingly	422	81.9
Unwillingly	93	18.1
Desire to Continue the Profession		
Yes	337	65.4
No	90	17.5
I'm undecided	88	17.1

working in units such as intensive care (5.4%), operating rooms (4.1%), and radiology (2.3%) was lower.

In terms of total service period in the profession, 49.7% of the employees were in the range of 1–5 years, 30.7% had 6–10 years, 11.1% had 11–15 years, and 8.5% had 16 years and above. In terms of selecting the profession, 81.9% of the employees stated that they chose their profession willingly, while 18.1% stated that they chose their profession unwillingly. When the desire to continue the profession was evaluated, 65.4% of the participants stated that they wanted to continue their profession, 17.5% stated that they did not want to continue their profession and 17.1% were undecided on this issue.

Table 2 shows the descriptive statistics regarding the total mean scores of the scales used in the study. The mean SPVBIW total score was 37.27 ± 39.51 , and it was found that the participants' scores varied between 0.00 and 165.00. When the sub-dimensions of the first section of the SPVBIW were evaluated, the mean of the individual isolation dimension was calculated as 12.38 ± 13.94 , the mean of the attack on the professional status dimension as 11.19 ± 11.64 , the mean of the attack on personality dimension as 10.24 ± 11.23 , and the mean of the direct negative behavior dimension as 3.46 ± 5.10 . The total Cronbach Alpha Coefficient of the scale was found to be 0.982, and the Cronbach Alpha Coefficients of the sub-dimensions of the first section were 0.976 in Individual Isolation, 0.958 in Attack on Professional Status, 0.969 in Attack on Personality, and 0.952 in Direct Negative Behaviors. The Cronbach Alpha Coefficient in the second section of the scale was 0.921 and 0.921 in the third section.

The average total score of the Short Psychological Resilience Scale was found to be 20.41 ± 4.32 , and it was also found that the scores among the participants varied between 6.00 and 30.00. The average value for the total score of the Job Stress Scale was 46.51 ± 20.72 , and it was found that the scores of the participants were distributed between 20.00 and 100.00.

Table 3 shows the relationships between SPVBIW, SRS, and JSS-20 scales and their sub-dimensions. Based on the analysis results, positive and highly significant relationships were detected between the total score of the psychological violence behavior scale and its sub-dimensions ($r = 0.966$ to 0.872 , $p < 0.01$).

A significant and negative relationship was detected between the SRS total score and the SPVBIW total score ($r = -0.338$, $p < 0.01$). Similarly, a negative and significant correlation was detected between the SRS and SPVBIW sub-dimensions ($r = -0.336$ to -0.278 , $p < 0.01$).

A high, positive, and significant relationship was detected between the total JSS score and the total SPVBIW score ($r = 0.673$, $p < 0.01$). Also, the relationships between the sub-dimensions of job stress and psychological violence were positive and significant ($r = 0.647$ to 0.590 , $p < 0.01$).

Table 4 shows the mediating role of psychological resilience (PRSL) in the relationship between workplace violence (PVAW) and job stress (JS). The effects of workplace violence on psychological resilience (a) were significant with $\beta = -0.338$, $p < 0.001$. When the explanatory power of the model was examined, $R^2 = 0.114$ showed that workplace violence explained 11.4% of the variance in psychological resilience. The total effect of workplace violence on job stress (c) was significant with $\beta = 0.673$, $p < 0.001$. The explanatory power of the model in the total effect was $R^2 = 0.453$, showing that the effect of workplace violence on job stress was strong. The effect of psychological resilience on job stress (b) was also significant ($\beta = -0.107$, $p = 0.002$). The direct effect of workplace violence on job stress (c) was also significant ($\beta = 0.637$, $p < 0.001$). However, the indirect effect (through PRSL) was significant with $\beta = 0.036$, 95% CI [0.013, 0.063]. When the total model was evaluated, the explanatory power of the model combining workplace violence, psychological resilience, and job stress variables was $R^2 = 0.463$.

Figure 1 makes it clear that workplace violence increases job stress and that psychological resilience

Table 2 The Total score averages on the scale of psychological violence behaviors in the workplace, job stress scale-20, and short psychological resilience scale

	N	Mean	SD	Min	Max	Kurtosis	Skewness	Alpha
SPVBIW Total	515	37.274	39.513	0.000	165.000	0.470	1.136	0.982
<i>Isolation of the Individual</i>	515	12.381	13.944	0.000	55.000	0.172	1.077	0.976
<i>Attack on Professional Status</i>	515	11.192	11.644	0.000	45.000	0.031	0.997	0.958
<i>Attack on Personality</i>	515	10.241	11.232	0.000	45.000	0.494	1.154	0.969
<i>Direct Negative Behaviors</i>	515	3.460	5.099	0.000	20.000	1.318	1.510	0.952
Short Psychological Resilience Total	515	20.408	4.317	6.000	30.000	0.291	0.309	0.752
Total Job Stress Scale	515	46.507	20.716	20.000	100.000	-0.497	0.579	0.956

Table 3 The correlation between scale scores

		Psychological violence total	Isolation of the individual	Attack on professional status	Attack on personality	Direct negative behaviors	Psychological resilience total	Job stress total
Psychological Violence Total	r	1.000						
	p	0.000						
Isolation of the Individual	r	0.966*	1.000					
	p	0.000	0.000					
Attack on Professional Status	r	0.958*	0.899*	1.000				
	p	0.000	0.000	0.000				
Attack on Personality	r	0.929*	0.836*	0.862*	1.000			
	p	0.000	0.000	0.000	0.000			
Direct Negative Behaviors	r	0.872*	0.856*	0.781*	0.743*	1.000		
	p	0.000	0.000	0.000	0.000	0.000		
Psychological Resilience Total	r	-0.338*	-0.336*	-0.327*	-0.278*	-0.337*	1.000	
	p	0.000	0.000	0.000	0.000	0.000	0.000	
Job Stress Total	r	0.673*	0.647*	0.657*	0.615*	0.590*	-0.322*	1.000
	p	0.000	0.000	0.000	0.000	0.000	0.000	0.000

* < 0.01; Pearson Correlation Analysis

Table 4 The mediating role of PRSL in the relationship between PVAW and JS

Dependent variable	Independent variable	β	SE	t	P	95% CI lower	95% CI upper	η^2
PRSL	PVAW(a)	-0.338	0.005	-8.121	0.000	-0.046	-0.028	0.114
	$R = 0.338$; $R\text{-sq} = 0.114$; $F = 65.948$; $p = 0.000$							
JS	PVAW (c)	0.673	0.017	20.617	0.000	0.319	0.387	0.453
	$R = 0.673$; $R\text{-sq} = 0.453$; $F = 425.060$; $p = 0.000$							
JS	PVAW (c')	0.637	0.018	18.518	0.000	0.299	0.369	0.401
	PRSL (b)	-0.107	0.165	-3.123	0.002	-0.840	-0.191	0.019
		$R = 0.681$; $R\text{-sq} = 0.463$; $F = 221.031$; $p = 0.000$						
Total Impact		0.353	0.017	20.617	0.000	0.319	0.387	
Direct Effect		0.334	0.018	18.518	0.000	0.299	0.369	
Indirect Effect		0.036	0.013	-	-	0.013	0.063	

PVAW Psychological Violence at Work, JS Job Stress, PRSL Psychological resilience

plays a partial mediating role in this process. While workplace violence directly increases job stress (c'), it also indirectly increases job stress (b) by reducing psychological resilience (a). Although psychological resilience has a reducing effect on job stress, the direct effect of workplace violence is more dominant. These findings suggest that workplace violence to which healthcare workers are exposed not only increases their stress levels but also weakens their capacity to cope with stress.

Discussion

The World Health Organization (2002) defines workplace violence as a global public health issue, with healthcare workers being among the most affected groups [40]. Data

from the USA indicate that 70% of workplace assaults occur in healthcare institutions. Additionally, 10% of public sector healthcare employees experience absenteeism due to violence, while this rate is 3% in the private sector [41]. Mobbing has been shown to negatively impact victims' health and well-being, leading to anxiety, depression, sleep disturbances, irritability, concentration problems, and psychosomatic disorders [42]. It has also been suggested that mobbing may cause Post-Traumatic Stress Disorder (PTSD) due to symptoms such as re-experiencing, avoidance, and increased arousal [43]. The mobbing rate in the European Union is reported as 15%, while 38% of healthcare employees in the United States have experienced psychological mobbing [44]. A

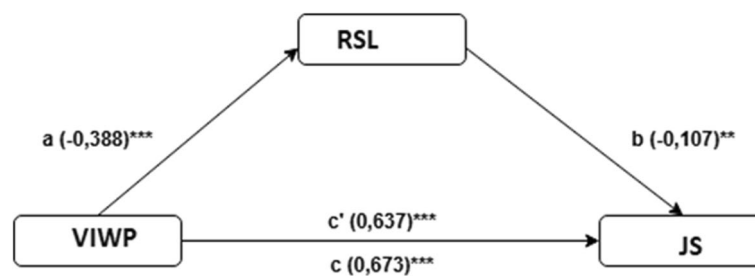


Fig. 1 The Mediating Role of PRSL in the Relationship Between PVAW and JS

meta-analysis found that the prevalence of workplace mobbing is 15% [45]. Studies on nurses [46], academics [47], and white-collar employees [48] have reported mobbing rates ranging from 9 to 90%. This study investigates the mediating role of psychological resilience in the relationship between workplace violence and job stress among healthcare employees.

In the present study, it was found that the total score average of the psychological violence behaviors scale in the workplace was 37.27 ± 39.51 . When the psychological violence sub-dimensions were evaluated, the average of the isolation of the individual dimension was 12.38 ± 13.94 , the average of the attack on professional status dimension was 11.19 ± 11.64 , the average of the attack on personality dimension was 10.24 ± 11.23 , and the average of the direct negative behaviors dimension was 3.46 ± 5.10 . These show that individuals receive the highest score in the “isolation of the individual” sub-dimension and are affected least in the “direct negative behaviors” sub-dimension. In a similar study conducted in Turkey, the total score average of the psychological violence behaviors scale in the workplace was reported to be 9.95 ± 14.75 . The individual's isolation from work sub-dimension score average was 2.95 ± 5.15 in the SPVBIW, the attack on professional status sub-dimension score average was 3.6 ± 5.13 , the attack on personality sub-dimension score average was 3.04 ± 4.49 and the direct negative behaviors sub-dimension score average was 0.36 ± 0.96 [8]. A physical and psychological violence study that was conducted in a city in the east of Turkey with different occupational groups reported that the rates of exposure to physical and psychological violence in the workplace of healthcare employees were higher than other occupational groups. According to the study, 29.2% of the participating nurses were frequently exposed to negative publicity by their superiors or colleagues. The rate of exposure to violence in healthcare employees (66.7%) was higher than in other occupational groups (33.3%). Verbal or physical sexual harassment and mobbing were most commonly observed in married, female nurses between the ages of 31–35. The rate of exposure to mobbing because of jobs outside of capacity or job

description was 42.3% in nurses and 57.1% in healthcare staff. Psychological pressure such as underestimation of achievements and interruptions was frequently reported by 75% of healthcare staff and 25% in other professions. The effect of negative attitudes and behaviors on health and sleep patterns was higher in healthcare staff (66.7%) compared to other professions (33.3%). The decrease in desire to go to work because of psychological pressure was also faced more frequently by healthcare staff (69.2%) [9]. Also, in another study conducted on psychological harassment behaviors encountered by midwives and nurses in the workplace in Turkey, it was reported that 27.4% of midwives and 20.7% of nurses had an average score higher than “1” on the Scale of Psychological Violence Behaviors in the Workplace. In the study, midwives and nurses reported that they were most exposed to behaviors such as “being talked about in a degrading and humiliating way in front of others,” “being seen as worthless and unimportant for their work,” and “being blamed for things they were not responsible for.” When the individuals who applied psychological harassment were evaluated, it was seen that they were mostly physicians, managers, coworkers, and relatives of patients [49]. The high scores in the present study might have occurred because of the density of the study group, stress factors in the work environment, geographical and cultural factors, or differences in the application methods of the scale. In particular, the workload on healthcare staff, unclear job descriptions, and long working hours explain these high rates.

On the other hand, the study results also showed that healthcare staff faced serious levels of psychological violence in the workplace. The high scores for isolation and attacks on professional status indicate that improvements must be made in interpersonal relationships in the work environment. Also, it must not be forgotten that these situations might affect not only individual well-being but also workplace efficiency and patient care services negatively. On the other hand, the findings showed that gender roles and power balances in the workplace were a determining factor in violence. The fact that there are mostly women employees in the healthcare sector

increases the likelihood that this group will be exposed to violence more.

In the present study, the mean total score of the psychological resilience scale was 20.41 ± 4.32 . In a similar study conducted in Turkey, the mean psychological resilience score of nurses was reported to be 17.81 ± 1.91 [48]. Our results are parallel to the literature data. When the psychological resilience level of healthcare staff was examined in general, it was seen that it was high. If a general inference is to be made based on the results of previous studies, it is seen that the concept of psychological resilience is associated with concepts that have or will affect psychosocial problems [18, 50]. The reason for this is that healthcare institutions provide intensive, stressful, and inherently risky services and that healthcare staff are likely to face factors that might cause psychosocial problems more than other institutions. Considering that psychological resilience is the ability to resist and adapt to difficulties, it is seen that the negative factors that healthcare staff face in the work environment have effects on the development of their psychological resilience levels. Increasing the well-being of healthcare staff, who have very intense working hours, require teamwork, spend a significant part of their lives at work, except for sleeping, because of their shifts in an institution that provides 24/7 services, and have difficult working conditions, will make it easier to manage their working lives and increase their quality of life.

The total score average of the Job Satisfaction Scale was found to be 46.51 ± 20.72 in the present study. This shows that the individuals participating in the study perceived job stress in a very wide distribution. In another study conducted in Turkey, it was reported that physicians had lower stress levels and higher life satisfaction than nurses [51]. Job stress is an important factor that affects the well-being of individuals and the functioning of institutions negatively. While personality traits, reactions to events, and psychological resilience determine the intensity of job stress at the individual level, factors such as role ambiguity, work intensity, inadequate wages, and irregular working hours play stress-increasing roles at the organizational level. These effects are more significant, especially in occupational groups such as the healthcare sector, which carries high risks. The consequences of job stress include healthcare concerns, burnout, absenteeism, and job termination tendencies at the individual level and loss of productivity, labor turnover, and increased health costs at the institutional level. For this reason, job stress must be handled carefully for the sustainable performance of not only individuals but also organizations [51].

The analysis of the study results shows that there are positive and strong significant relationships between

the total score of psychological violence and its sub-dimensions. This shows that the sub-dimensions of psychological violence support each other and form a consistent structure. Also, a negative and significant relationship was detected between the total score of psychological violence and psychological resilience. Similarly, a negative and significant relationship was detected between the level of psychological resilience and the sub-dimensions of psychological violence. These show that increased exposure to psychological violence affects individuals' psychological resilience levels negatively. In line with the literature data, previous studies also reported negative relationships between psychological violence at work and psychological resilience [8, 52, 53]. For example, in the study conducted by Tabakakis et al. (2019) [54], a negative relationship was reported between negative behaviors at work and psychological resilience, and it was reported that each increase in the Negative Actions Questionnaire (NAQ-R) scores led to a 0.07-point decrease in psychological resilience. The influence of cultural factors on psychological violence in Turkey's healthcare sector warrants further exploration. Cultural dynamics, such as societal norms around authority, gender roles, and hierarchical structures, may contribute to the prevalence of psychological violence in healthcare settings [9]. In Turkey, the traditional emphasis on respect for authority and a top-down approach in medical hierarchies can create an environment where subordinate healthcare workers feel pressured or devalued [51].

These results show that psychological violence in the workplace not only creates short-term emotional effects on individuals but might also reduce psychological resilience and stress-coping capacity in the long term. If the necessary precautions are not taken, psychological violence might lead to an intensification of emotional states such as stress, fear, and helplessness in individuals, which might then cause negative outcomes such as anxiety, depression, burnout, and leaving the profession. The results also showed that psychological violence seriously weakens psychological psychological resilience, which is the ability of individuals to cope with negative situations.

In the present study, a positive and highly significant relationship was detected between the total score of job stress and the total score of psychological violence. The relationships between the sub-dimensions of job stress and psychological violence were also positive and significant, confirming outcomes of some previous studies highlighting the relationships between workplace violence and stress [55]. This shows that being exposed to more psychological violence at work increases job stress. A negative and significant relationship was detected between psychological resilience and job stress, which shows that individuals with high levels of psychological

resilience might cope with job stress better. There is no study in the literature investigating the relationships between workplace violence, job stress, and psychological resilience, for this reason, the present study is original. In the study, the strong positive relationships between the total score of job stress and the total score of psychological violence showed that psychological violence at work directly increases the stress levels of employees. The significant positive relationships between the sub-dimensions of psychological violence and job stress also show that this effect occurs similarly in different types of violent behaviors. These results emphasize that the devastating effects of psychological violence in the workplace on employees are a serious source of stress that bothers not only the individual but also the work environment. The negative relationship between psychological resilience and job stress stands out as an important finding, which shows that individuals with high levels of psychological resilience have better coping skills with stressful situations and are less affected by the negative effects of job stress. Psychological resilience also plays critical roles in combating job stress because it strengthens the resistance mechanisms that an individual develops against stress factors and makes it easier for them to adapt to challenging situations.

The mediating role of psychological resilience in the relationship between workplace violence and job stress was examined in the present study. The results of the present study showed that workplace violence has significant effects on both psychological resilience and job stress, and psychological resilience plays partial mediating roles in this relationship, workplace violence negatively affects psychological psychological resilience, workplace violence increases job stress, and the effect of workplace violence on job stress is strong. The effect of psychological resilience on job stress was also significant. The present study also showed that psychological resilience has important roles in reducing individuals' job stress. This is in line with recent previous studies highlighting the impact of psychological resilience in reducing job stress [56]. For example, a study conducted showed that the relationship between job stress and other psychological variables was significantly mediated by psychological resilience [56], implying that psychological resilience can act as a powerful tool to reduce job stress among healthcare workers.

Also, the direct effect of workplace violence on job stress was significant. This outcome is along similar lines with some recent studies that indicate the relationships between workplace violence and job stress [57]. However, the indirect effect (through psychological resilience) was found to be significant. These results show that psychological resilience plays a partial mediating role in the

relationship between workplace violence and job stress, and when the total model is examined, the total effect of workplace violence and psychological resilience on job stress is seen to be high. The significant effect of psychological resilience on job stress emphasizes that individual qualities such as psychological resilience have a critical role in coping with stress [56]. Especially in a serious stress source such as workplace violence, increasing psychological resilience strengthens individual well-being and provides important support in combating Job Stress.

Conclusion and recommendations

This study investigates the relationship between workplace violence, psychological resilience, and job stress among 515 healthcare workers at Mardin Education and Research Hospital in southeast Turkey. The results indicate that psychological violence in the workplace increases job stress and negatively affects psychological resilience, which partially mediates this relationship. These findings highlight the impact of psychological violence on healthcare workers' well-being and underscore the need for strategies to address it.

The study contributes to the understanding of how workplace violence affects healthcare employees in a specific regional context. It shows that behaviors such as isolation and attacks on professional status or personality are linked to higher job stress and lower resilience. These insights are relevant for healthcare settings aiming to support staff well-being and maintain effective operations.

To address these issues, healthcare policymakers should develop clear policies to prevent workplace violence, including reporting mechanisms and protocols against psychological harassment. Training on conflict resolution and awareness of mobbing behaviors is recommended for all staff, particularly for high-risk groups like nurses. Additionally, interventions such as stress management workshops and access to counseling can help build psychological resilience, supporting workers in managing workplace stressors.

At the institutional level, healthcare leaders should promote clear job roles, fair workloads, and supportive environments to reduce stress. Anonymous reporting systems and regular feedback can help identify and address psychological violence early. Integrating resilience training into professional development may further enhance staff coping abilities and job satisfaction.

Unaddressed workplace violence and job stress can lead to burnout and reduced patient care quality. By implementing prevention strategies and resilience-building measures, healthcare systems can improve employee well-being and operational efficiency. Future research should examine the long-term effects of workplace

violence and evaluate resilience-focused interventions in diverse settings to inform policy.

In summary, this study emphasizes the need to address psychological violence in healthcare through targeted policies and resilience-building efforts. These steps can support healthcare workers' mental health and contribute to sustainable healthcare systems.

Suggestions for future studies

The findings and limitations of this study offer several avenues for future research on workplace violence, psychological resilience, and job stress. Below, we propose specific, actionable directions to advance this field:

- **Longitudinal Studies:** The current study utilized a cross-sectional design, limiting insights into long-term effects. Future research should employ longitudinal designs to examine the cumulative impact of workplace violence on psychological resilience and job stress over time. Such studies could clarify causal relationships and assess outcomes like mental health, burnout, and turnover intentions.
- **Broader and Diverse Samples:** The study was conducted in a single public hospital in Mardin, restricting generalizability. Future research should include larger, more diverse samples from public and private hospitals across different regions of Turkey (e.g., western or northern regions) to capture regional variations. Additionally, underrepresented groups, such as technicians, administrative staff, and male healthcare workers, should be included to provide a comprehensive understanding of workplace violence.
- **Objective Measurement Methods:** Reliance on self-report questionnaires introduces potential response bias. Future studies should incorporate objective measures, such as clinical interviews, medical diagnostic records, or physiological indicators (e.g., cortisol levels), to assess psychological violence and job stress. These methods could validate self-report data and enhance the reliability of findings.
- **Intervention Effectiveness:** The study highlights psychological resilience's role in reducing job stress. Future research should design randomized controlled trials to evaluate the effectiveness of interventions like stress management training, conflict resolution programs, or resilience-building workshops. These interventions should be tailored to high-risk groups (e.g., nurses, female employees) and assess long-term impacts on well-being and retention.
- **Cultural and Organizational Factors:** The study suggests that cultural and organizational dynamics in southeast Turkey influence workplace violence. Comparative studies should explore how regional

differences, gender roles, power imbalances, and institutional cultures shape workplace violence across Turkey (e.g., comparing Mardin to Istanbul or Ankara). This could provide insights into context-specific prevention strategies.

- **Different Types of Violence:** The study focused on psychological violence. Future research should investigate the effects of other workplace violence types, such as physical, sexual, or verbal abuse, on psychological resilience and job stress. Additionally, comparing the impacts of patient-related (Type II) and employee-related (Type III) violence could inform targeted interventions.

- **Gender and Occupational Perspectives:** The findings indicate higher violence exposure among nurses and female employees. Future studies should explore how gender-based stereotypes and occupational roles (e.g., the perception of nursing as a "female profession") influence workplace violence. Including male healthcare workers' experiences could provide a more nuanced understanding of gender dynamics.

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Authors' contributions

V.B.D., S.Ç., and H.K. conceived the study and contributed to the interpretation of the results. V.B.D. did statistical analyses and drafted the first manuscript. S.Ç. and H.K. provided oversight and managed the research activity. V.B.D., S.Ç., H.K. contributed to the review and revision of the manuscript. All authors contributed to the design of the study protocol and reviewed the manuscript. The authors have read and approved the final manuscript.

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Data availability

The data that supports the findings of this study is available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate

The study was approved by Mardin Artuklu University Non-Interventional Clinical Research Ethics Committee. Ethical permission (16.04.2024, 2024/4–29) and institutional permission (08.05.2024, E-68051626–770-243181406) were received from the hospital where the study was conducted on 08.05.2024. All study procedures were performed in accordance with relevant guidelines. All participants were given an oral explanation of the purpose and content of the study, and informed consent was obtained from all participants.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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