

Perceived Organizational Culture and Violence Prevention Climate among Healthcare Workers: Cross-Sectional Associations in Zonguldak, Türkiye

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ARTICLE INFO

Manuscript Received: 14 Dec, 2025

Revised: 11 Jun, 2026

Accepted: 09 Jul, 2026

Date of Publication: 16 July, 2026

Volume: 9

Issue: 7

DOI: [10.56338/mparki.v9i7.9583](https://doi.org/10.56338/mparki.v9i7.9583)

KEYWORDS

Organizational Culture;
Violence Prevention Climate;
Healthcare Workers;
Workplace Violence;
Cross-Sectional Study

ABSTRACT

Introduction: Workplace violence is a major occupational and public health concern in healthcare settings. Although organizational culture and violence prevention climate have been examined in previous studies, limited evidence exists on how different perceived organizational culture types are associated with specific dimensions of violence prevention climate among healthcare workers.

Methods: This analytical cross-sectional study was conducted with 388 healthcare workers employed in public and private healthcare institutions in Zonguldak, Türkiye. Data were collected using a survey form including validated organizational culture and violence prevention climate scales. Descriptive statistics, confirmatory factor analysis, common method bias assessment, discriminant validity tests, correlation analysis, independent-samples t-tests, and simultaneous regression analyses were performed using SPSS and AMOS.

Results: The measurement models showed acceptable reliability and validity. Common method bias was not considered a severe concern, and additional discriminant validity analyses supported the empirical distinctiveness of highly correlated constructs. Simultaneous regression analyses indicated that clan, market, and hierarchy cultures were positively associated with policies and procedures, whereas adhocracy culture was not significant. All four culture types were positively associated with practices and responses. For pressure for unsafe practices, clan and hierarchy cultures showed negative associations, market culture was not significant, and adhocracy culture showed a positive association. Public healthcare workers reported higher scores for organizational culture, policies and procedures, and practices and responses than private healthcare workers, while pressure for unsafe practices did not differ significantly by institution type.

Conclusion: The findings indicate perceptual associations between organizational culture and violence prevention climate among healthcare workers. Because the study used a cross-sectional design, convenience sampling, and self-reported data, the results should not be interpreted as causal evidence. Strengthening organizational culture may be considered an evidence-informed strategy for supporting violence prevention climate, but future longitudinal and multi-source studies are needed.

Publisher: Fakultas Kesehatan Masyarakat Universitas Muhammadiyah Palu

INTRODUCTION

Workplace violence in healthcare institutions is not only an organizational problem but also an occupational and public health concern. Healthcare workers are responsible for delivering continuous, safe, and high-quality care. However, exposure to physical violence, verbal abuse, threats, harassment, or intimidation may undermine their psychological well-being, professional motivation, and capacity to provide effective care. Therefore, violence against healthcare personnel has broader implications for employee safety, patient safety, service quality, and the sustainability of healthcare systems (1).

The World Health Organization (WHO) reports that approximately 62% of healthcare workers worldwide experience some form of workplace violence. Although prevalence rates vary across countries and healthcare settings, between 8% and 38% of healthcare professionals are exposed to physical violence during their careers, while many more experience verbal threats or abuse. Most violent incidents are perpetrated by patients or their relatives, indicating that healthcare workers remain vulnerable to violence in the very environments where care and healing are expected to take place (2). A significant proportion of violent events remain unreported due to insufficient administrative support, cultural constraints, lack of evidence—particularly in cases of verbal harassment—and, most importantly, fear of job loss (3). In some cases, staff believe that reporting violence might negatively affect customer relations. As a result, the implementation of effective preventive strategies becomes challenging. Consequently, workplace violence weakens the relationship between employees and their organizations and can erode the existing organizational culture (4). Exposure to physical or verbal aggression poses a serious threat to occupational well-being. Workplace violence is also associated with adverse psychological and emotional outcomes, increased sick leave, turnover intentions, and impaired work functioning (5).

Caruso et al. (6) emphasized that numerous interrelated factors contribute to violence in healthcare settings, including social, organizational, political, and individual-level variables related to employees, patients, and visitors. Similarly, O'Brien et al. (1), through a meta-analytic study, categorized the causes of workplace violence in healthcare into three primary domains: those related to patients and visitors, those linked to healthcare workers themselves, and those associated with broader organizational or sociocultural structures. These domains are closely interdependent, collectively shaping the likelihood of violent behavior toward healthcare workers. Among these, institutional and employee-related dimensions are considered more manageable and subject to change. Therefore, focusing on organizational-level factors may yield more effective results in preventing violence in healthcare. As suggested by Spector et al. (7), one of the modifiable determinants of workplace aggression is the violence prevention climate.

Kessler et al. (8) conceptualized the violence prevention climate as a multidimensional construct comprising three subdimensions. The first subdimension, Policies and Procedures, assesses employees' awareness of formal organizational policies aimed at mitigating aggression and violence in the workplace. The implementation of effective policies, coupled with employee awareness of these policies, is crucial in influencing behaviors that may lead to aggression and violence. This dimension also measures the dissemination of information on violence prevention through training and other formal communication channels. The second subdimension, Practices and Responses, reflects employees' perceptions of how management implements prevention policies and responds to incidents of workplace aggression. To cultivate a positive organizational climate, it is essential for institutions not only to have formal policies in place but also to enforce these policies effectively through consistent practices. The interaction between policies and practices plays a critical role in fostering a positive violence prevention climate. The third subdimension, Pressure for Unsafe Practices, refers to the perceived pressure to disregard violence prevention policies in order to maintain productivity. Employees may experience pressure from supervisors to take shortcuts that compromise safety, or from peers to conform to group norms when coworkers display indifference toward violence prevention policies (8).

A positive violence prevention climate—an integral component of an organization's culture—encourages behaviors that reduce the risk of violence and verbal abuse. Thus, identifying and modifying organizational factors that can systematically mitigate such incidents is of critical importance (9). Within this framework, the organizational culture of healthcare institutions plays a decisive role in shaping the violence prevention climate. Several recent studies (10,11) have shown that cultivating a positive organizational culture can help decrease workplace violence. However, because organizational culture is a complex and non-standardized construct, there is no universally accepted model defining it.

Organizational culture provides an important theoretical basis for understanding how violence prevention climate develops in healthcare institutions. Schein (12) conceptualized culture as a pattern of shared basic assumptions that guides how members perceive, think, and respond to organizational problems. In a similar way, Claver et al. (13) emphasized that organizational culture consists of shared values, symbols, and practices that shape how organizational actors respond to internal and external challenges. From this perspective, violence prevention climate can be understood as a more specific manifestation of organizational culture, reflecting employees' perceptions of whether violence prevention policies, managerial practices, and safety-related expectations are visible and consistently implemented in the workplace.

The relationship between organizational culture and violence prevention climate can be explained more clearly through the Competing Values Framework (CVF). Cameron and Quinn (14) conceptualized organizational culture through four culture types: clan, adhocracy, market, and hierarchy. Meta-analytic evidence also supports the relevance of these culture types for understanding organizational effectiveness (15). The theoretical value of the CVF lies not only in identifying these four culture types but also in explaining the tensions between flexibility and control and between internal and external organizational orientation. Beus et al. (16) similarly used the CVF to classify organizational climate types and argued that climate and culture are closely related because climate reflects employees' perceptions of observable organizational priorities, whereas culture reflects the deeper values and assumptions underlying those priorities. Sampieri et al. (17) also emphasized the usefulness of the competing values model for linking organizational climate and organizational culture.

Within this framework, each culture type may shape violence prevention climate through a different organizational mechanism. Clan culture is characterized by internal orientation, flexibility, trust, cohesion, participation, and mutual support (14–16). In healthcare settings, these values may support violence prevention climate by strengthening open communication, psychological safety, peer support, and employees' willingness to report violent incidents (8,18). Therefore, clan culture may be particularly relevant to employees' perceptions of managerial responses and follow-up practices after violent events (8,19).

Adhocracy culture reflects flexibility, innovation, autonomy, and adaptability (14–16). This cultural orientation may contribute to violence prevention climate by encouraging creative problem-solving, flexible training practices, digital reporting tools, and rapid adaptation to emerging violence risks (8,18). However, because adhocracy culture emphasizes flexibility and experimentation, its relationship with formalized policies and pressure for unsafe practices may be less straightforward than that of clan or hierarchy culture (14–16).

Hierarchy culture is based on internal orientation, stability, formalization, standard operating procedures, and managerial control (14–16). These values are directly relevant to violence prevention climate because effective violence prevention requires clear rules, incident reporting procedures, role clarity, documentation, and consistent managerial enforcement (8,18). In this respect, hierarchy culture may strengthen employees' perceptions of policies and procedures. However, highly hierarchical environments may also discourage employee voice if formal authority structures limit open reporting. Therefore, hierarchy culture may support violence prevention climate when formal rules are accompanied by accessible reporting channels and managerial accountability (8,18,19).

Market culture reflects external orientation, productivity, competitiveness, goal achievement, and performance accountability (14–16). Its relationship with violence prevention climate requires careful theoretical interpretation. On the one hand, clear performance standards and accountability mechanisms may support violence prevention if safety indicators are incorporated into institutional performance criteria (8,18). On the other hand, excessive emphasis on productivity and efficiency may increase pressure to bypass safety procedures. Therefore, market culture may contribute positively to violence prevention climate only when performance expectations are balanced with safety priorities (8,16,18).

This theoretical distinction is important because workplace violence in healthcare is shaped not only by individual-level factors but also by organizational conditions. Arnetz et al. (18) showed that organizational safety climate and staff interaction factors are associated with exposure to workplace violence among hospital workers. More recently, Yesildağ et al. (19) reported that violence prevention climate is related to workplace happiness among healthcare professionals, indicating that violence prevention is not only a safety issue but also an organizational well-being issue. Therefore, examining how different organizational culture types are associated with specific dimensions

of violence prevention climate may provide a more nuanced understanding of workplace violence prevention in healthcare institutions.

A review of the existing literature indicates that the violence prevention climate plays a crucial role in mitigating workplace violence. Spector et al. (7), in their study of healthcare professionals, concluded that cultivating a strong perceived violence prevention climate can significantly reduce incidents of workplace aggression and violence. Similarly, Kessler et al. (8) reported that the violence prevention climate is strongly associated with exposure to physical and verbal aggression, physical strain, job dissatisfaction, and psychological stress, including negative workplace emotions.

Research on organizational culture similarly emphasizes its strong connection to workplace violence. Siourouni et al. (20) conducted a literature review to determine whether a single dominant organizational culture exists in public hospitals and found a significant association between strong, supportive cultures and both employee and patient satisfaction, which, in turn, contributed to fewer violent incidents. Tambur and Vadi (21) examined the relationship between workplace bullying—a prevalent form of workplace violence—and organizational culture, concluding that these factors are closely interrelated. In the same vein, Pilch and Turska (22) found that exposure to bullying was negatively related to perceptions of clan and adhocracy cultures but positively related to perceptions of hierarchy culture. Pheko et al. (10) further argued that organizational culture may exert either a positive or negative influence on workplace bullying.

Saleem et al. (4) sought to clarify the relationship among workplace violence, work environment, organizational culture, and employee participation. Their findings revealed that a healthy organizational culture and supportive work environment not only reduce the level of workplace violence but also enhance employee engagement. Similarly, El-Shafey et al. (11), in their study of the healthcare sector, reported a significant correlation between organizational culture and workplace violence, suggesting that fostering a positive organizational culture can help minimize violent incidents. Hoxha et al. (23), in examining the role of organizational culture in improving healthcare quality, emphasized that prioritizing employee satisfaction within organizational culture is essential for building a sustainable and high-quality healthcare system. They also highlighted that improvements in healthcare delivery may serve as a positive factor within the violence prevention climate, further underscoring the importance of organizational culture. Consequently, the establishment of a well-structured organizational culture may play a pivotal role in mitigating the root causes of workplace violence. Although previous studies have emphasized the importance of organizational factors in workplace violence prevention, the theoretical connection between organizational culture types and violence prevention climate dimensions remains insufficiently developed. Research on organizational determinants of workplace violence has shown that safety climate, staff interactions, managerial practices, and organizational procedures are relevant to violence exposure among hospital workers (18). Similarly, recent evidence indicates that violence prevention climate is associated with workplace well-being among healthcare professionals (19). However, limited empirical evidence explains how different cultural orientations within the Competing Values Framework are associated with specific aspects of violence prevention climate.

This gap is theoretically important because the three dimensions of violence prevention climate may be shaped by different organizational mechanisms. Policies and procedures require formal communication, rule clarity, and institutional visibility. Practices and responses require managerial consistency, timely follow-up, and employee trust in organizational responses after violent incidents. Pressure for unsafe practices reflects the extent to which productivity, workload, or peer norms may encourage employees to disregard violence prevention procedures. Therefore, understanding violence prevention climate requires examining not only whether organizational culture is generally positive, but also how different cultural value orientations may relate to different prevention mechanisms.

Accordingly, this study aimed to examine the perceived associations between organizational culture and violence prevention climate among healthcare workers in public and private healthcare institutions in Zonguldak, Türkiye. Specifically, the study investigated how four organizational culture types—clan, adhocracy, market, and hierarchy—are associated with three dimensions of violence prevention climate: policies and procedures, practices and responses, and pressure for unsafe practices. By doing so, the study seeks to contribute to healthcare management and occupational health literature by integrating the Competing Values Framework with violence prevention climate research in a healthcare setting.

Hypotheses Development

Based on the Competing Values Framework and the theoretical mechanisms discussed above, the hypotheses were developed around the distinct value orientations represented by each organizational culture type. Rather than treating organizational culture as a single general construct, this study assumes that clan, adhocracy, hierarchy, and market cultures may be associated with violence prevention climate through different organizational mechanisms. Accordingly, the hypotheses focus on how each culture type is expected to relate to the three dimensions of violence prevention climate: policies and procedures, practices and responses, and pressure for unsafe practices. This approach is consistent with the view that CVF culture types represent distinct value orientations that may shape violence prevention climate through different organizational mechanisms.

H₁: Clan culture is associated with a more favorable violence prevention climate. Based on its emphasis on trust, cohesion, participation, and mutual support, clan culture is expected to be positively associated with policies and procedures and practices and responses, and negatively associated with pressure for unsafe practices.

H₂: Adhocracy culture is associated with violence prevention climate through flexibility, innovation, and adaptive responses to workplace violence risks. Based on its emphasis on autonomy, adaptability, and experimentation, adhocracy culture is expected to be positively associated with adaptive practices and responses to workplace violence. However, its relationship with formalized policies and pressure for unsafe practices may depend on whether flexibility is supported by clear safety procedures.

H₃: Hierarchy culture is associated with a more favorable violence prevention climate. Based on its emphasis on formalization, role clarity, standard procedures, and managerial control, hierarchy culture is expected to be positively associated with policies and procedures and practices and responses, and negatively associated with pressure for unsafe practices.

H₄: Market culture is associated with violence prevention climate through performance orientation and accountability. Based on its emphasis on goal achievement, productivity, and performance standards, market culture is expected to be positively associated with policies and procedures and practices and responses when safety is incorporated into institutional performance expectations. Its relationship with pressure for unsafe practices may depend on whether productivity demands are balanced with employee safety priorities.

METHOD

Study Design and Research Model

This study employed an analytical cross-sectional design to examine the perceived associations between organizational culture and violence prevention climate among healthcare workers. Data were collected at a single point in time, and no intervention or manipulation was applied. Therefore, the findings represent statistical associations based on self-reported perceptions and should not be interpreted as evidence of temporal or causal relationships.

The research model presented in Figure 1 was developed based on the Competing Values Framework and the hypotheses presented in the Introduction. The model includes four organizational culture types—clan, adhocracy, market, and hierarchy—as independent variables and three dimensions of violence prevention climate—policies and procedures, practices and responses, and pressure for unsafe practices—as dependent variables. The paths in the model represent hypothesized statistical associations rather than causal effects.

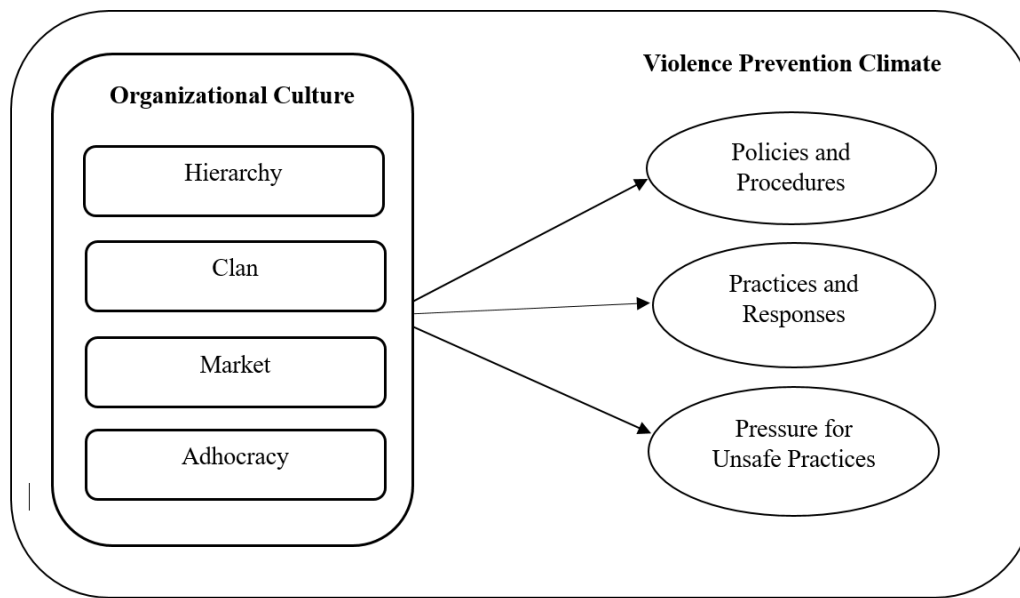


Figure 1. Research Model

Study Population and Sample

The study population consisted of healthcare workers employed in public and private healthcare institutions located in the city center of Zonguldak, Türkiye. According to data from the Turkish Ministry of Health (24), there are 24 healthcare institutions in the city center of Zonguldak, including three state hospitals, one university hospital, one private hospital, one oral and dental health center, one community health center, sixteen family health centers, and one provincial ambulance service directorate.

The study sample was selected using a convenience sampling method. The inclusion criteria were being employed as a healthcare worker or administrative staff member in a public or private healthcare institution in Zonguldak, being 18 years of age or older, and voluntarily agreeing to participate in the study. Participants who did not provide informed consent, submitted incomplete questionnaires, or provided inconsistent or erroneous responses were excluded from the analysis. A total of 400 responses were collected, and after excluding incomplete and erroneous responses, analyses were conducted on 388 valid cases.

Because the study used a convenience sampling strategy, the sample should not be considered statistically representative of all healthcare workers in Zonguldak or Türkiye. The inclusion of healthcare workers from both public and private institutions increases contextual diversity; however, the findings should be interpreted with caution because perceptions of organizational culture and violence prevention climate may vary according to institution type, occupational role, clinical unit, work experience, and prior exposure to workplace violence.

Ethical Considerations

Ethical approval was obtained from the Scientific Research and Publication Ethics Committee of Düzce University before data collection (Meeting number: 3; Decision number: 2025/70; Decision date: February 27, 2025). Participation in the study was voluntary, and informed consent was obtained from all participants before they completed the survey. Participants were informed about the purpose of the study, the anonymous nature of their responses, and their right to withdraw from the study at any stage. No personally identifiable information was collected, and all data were analyzed in aggregate form.

Data Collection and Measures

Data were collected through digital survey forms between March 1, 2025, and May 15, 2025. The survey form consisted of three sections. The first section included questions on participants' demographic and occupational characteristics. The second section included the Organizational Culture Scale, adapted into Turkish by Karakılıç (25)

based on Cameron and Quinn's organizational culture framework (26). The scale consists of 16 items and four dimensions: clan culture, adhocracy culture, market culture, and hierarchy culture.

The third section included the Violence Prevention Climate Scale, developed by Kessler et al. (8) and adapted into Turkish by Dursun, Başol, and Aytac (27). The scale consists of 18 items and three dimensions: policies and procedures, practices and responses, and pressure for unsafe practices. Both scales were administered using a five-point Likert-type response format ranging from 1 = strongly disagree to 5 = strongly agree.

Data Analysis

The data were analyzed using SPSS and AMOS software. Descriptive statistics were used to summarize participants' demographic and occupational characteristics. Confirmatory factor analysis (CFA) was conducted to assess the construct validity of the organizational culture and violence prevention climate scales. Reliability and convergent validity were evaluated using Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). Normality was assessed using skewness and kurtosis values.

Given the cross-sectional self-report design, common method bias was assessed using Harman's single-factor test. Discriminant validity was examined using the Fornell–Larcker criterion. In addition, alternative one-factor and two-factor models were compared using chi-square difference tests for construct pairs with high correlations or borderline Fornell–Larcker results.

Pearson correlation analysis was conducted to examine the bivariate associations between organizational culture dimensions and violence prevention climate dimensions. To assess the unique association of each organizational culture type with violence prevention climate, simultaneous multiple regression analyses were performed. In these models, clan culture, adhocracy culture, market culture, and hierarchy culture were entered together as independent variables, while policies and procedures, practices and responses, and pressure for unsafe practices were examined as separate dependent variables. Standardized coefficients, unstandardized coefficients, 95% confidence intervals, explained variance, tolerance, and variance inflation factor (VIF) values were reported.

Independent-samples t-tests were conducted to examine whether the study variables differed by institution type. When the assumption of homogeneity of variance was not met, Welch's t-test was used. Goodness-of-fit indices were evaluated based on the threshold values presented in Table 1.

Table 1. Recommended Threshold Values for Model Fit Indices in CFA and SEM

Measure	Good Fit	Acceptable Fit
Chi-square (χ^2/df) test:	≤ 3.00	≤ 5.00
NFI (Normalized Fit Index)	≥ 0.95	≥ 0.90
CFI (Comparative Fit Index)	≥ 0.95	≥ 0.90
GFI (Goodness-of-Fit Index)	≥ 0.95	≥ 0.90
RMSEA (Root Mean Square Error of Approximation)	≤ 0.05	≤ 0.08 ; values up to 0.10 may indicate marginal but tolerable fit
RMR (Root Mean Square Residual)	≤ 0.05	≤ 0.08
PGFI (Parsimony Goodness of Fit Index)	Higher values preferred	≥ 0.50

Note. CFA = confirmatory factor analysis; SEM = structural equation modeling; NFI = normed fit index; CFI = comparative fit index; GFI = goodness-of-fit index; RMSEA = root mean square error of approximation; RMR = root mean square residual; PGFI = parsimony goodness-of-fit index. Recommended threshold values were based on commonly used criteria in the CFA and SEM literature (28,29).

RESULTS

Demographic Characteristics of Participants

The results of the frequency analysis of the participants' demographic characteristics are shown in Table 2.

Table 2. Findings Related to Demographic Characteristics

Demographic Information		n	%	Demographic Information		n	%
Gender	Male	224	57.7	Occupation	Doctor	18	4.6
	Female	164	42.3		Dentist	10	2.6
Age	18-25	64	16.5		Nurse	156	40.2
	26-35	232	59.8		Midwife	42	10.8
	36-45	79	20.4		Manager	23	5.9
	46-55	13	3.4		Administrative Staff	34	8.8
Marital Status	Married	225	58.0		Health Officer	42	10.8
	Single	163	42.0		Laboratory staff	28	7.2
Education	Elementary and Middle School	18	4.7		Health technician	15	3.9
	High school	57	14.7	Institution	Emergency Medical Technician	14	3.6
	Bachelor's Degree	281	72.4		Other	6	1.5
	Graduate	32	8.2		Public	266	68.6
Income	<TRY 30.000	17	4.4		Private	122	31.4
	TRY 30,001-60.000	316	81.4				
	>TRY 60.001	55	14.2				

Table 2 shows that approximately 57.7% of participants were male healthcare workers and 42.3% were female healthcare workers. Approximately 58% of this population were married and 42% were single. The majority of participants are in the 26-35 (59.8%) and 36-45 (20.4%) age groups. The findings indicate that participants in the 18-25 and 46-55 age groups showed low participation in the study. When the level of education was examined, it was seen that the majority of participants had a bachelor's degree (72.4%). In terms of income, based on the economic conditions at the time of the study, participants earning between 30,001 and 60,000 TRY per month constituted the largest group (81.4%). When the occupational groups participating in the study are examined, the findings indicate that the highest participation rates were among nurses (40.2%), midwives (10.8%), health officers (10.8%), and administrative staff (8.8%), respectively. When the type of institution is examined, the findings indicate that the majority of participants work in public institutions (68.6%).

Institution Type Comparisons

Independent-samples t-tests were conducted to examine whether the study variables differed according to institution type. As shown in Table 3, healthcare workers employed in public institutions reported significantly higher scores than those employed in private institutions for clan culture, adhocracy culture, market culture, hierarchy culture, policies and procedures, and practices and responses. The largest differences were observed for practices and responses and policies and procedures. However, no significant difference was found between public and private healthcare workers in terms of pressure for unsafe practices.

Table 3. Institution Type Differences in Study Variables

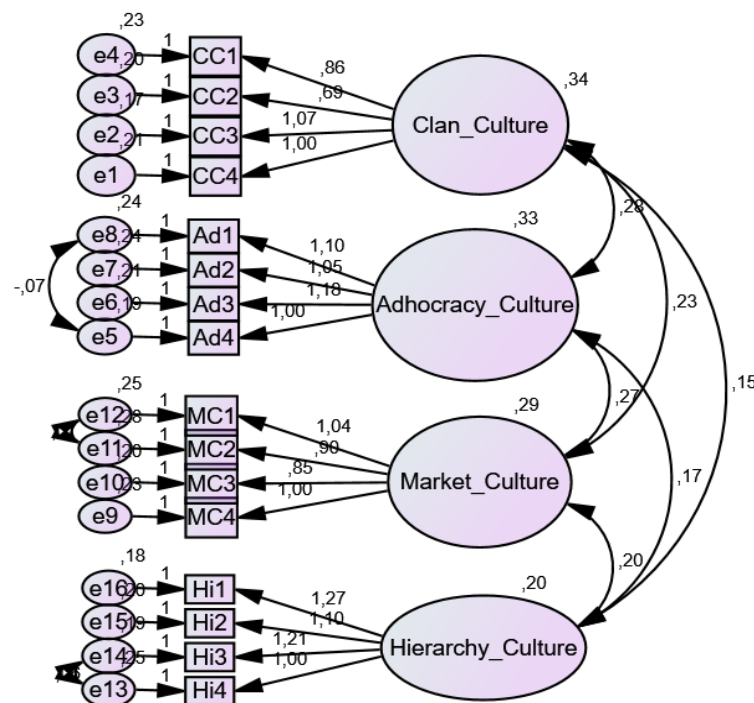
Variable	Public Institutions M ± SD	Private Institutions M ± SD	t	df	p	Cohen's d
Clan Culture	4.198 ± 0.572	3.887 ± 0.529	5.236	252.528	< .001	.556
Adhocracy Culture	4.141 ± 0.653	3.918 ± 0.638	3.146	386	.002	.344
Market Culture	4.241 ± 0.582	4.006 ± 0.524	3.950	259.095	< .001	.415

Hierarchy Culture		4.275 ± 0.508	3.959 ± 0.614	5.325	386	< .001	.582
Policies and Procedures		4.301 ± 0.482	3.971 ± 0.441	6.636	255.294	< .001	.702
Practices and Responses		4.256 ± 0.467	3.896 ± 0.532	6.731	386	< .001	.736
Pressure for Unsafe Practices		1.929 ± 0.721	1.966 ± 0.907	0.393	193.864	.695	-.047

Note. Public institutions: n = 266; private institutions: n = 122. Welch's t-test results were reported for variables where the assumption of equal variances was not met or was borderline. Cohen's d values indicate standardized mean differences.

Confirmatory Factor Analysis Findings

To identify the relationships between the variables in the study, factor analysis must first be performed. Before hypothesis testing, confirmatory factor analysis was conducted to assess the construct validity of the organizational culture and violence prevention climate scales. The CFA results are presented in Figures 2 and 3 and Tables 4 and 5.



CMIN=277,929; DF=95; CMIN/DF=2,926; p=,000; RMSEA=,071; CFI=,949; GFI=,919

Figure 2. Organizational Culture CFA Results

When Figure 2 and Table 4 are examined together, the CFA results for organizational culture indicate an acceptable model fit. The fit indices were within acceptable ranges: $\chi^2/df = 2.936$, GFI = 0.919, CFI = 0.949, and RMSEA = 0.071. Although the CFI value was slightly below the conventional good-fit threshold of 0.95, it was above the commonly accepted minimum threshold of 0.90, indicating acceptable fit.

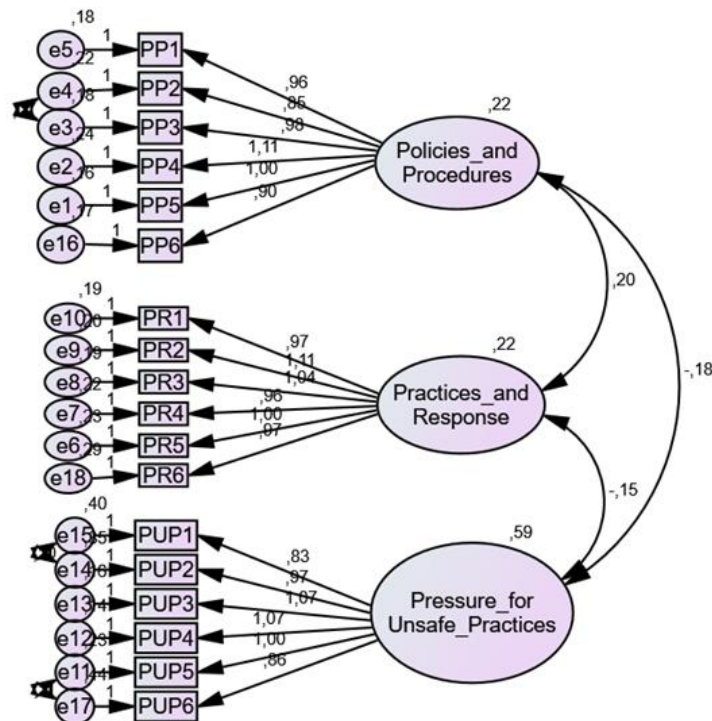
Table 4 shows that the reliability coefficients are greater than 0.70 (Clan culture: 0.842, Adhocracy culture: 0.865, Market culture: 0.826, Hierarchy culture: 0.843). The AVE (convergent validity) and CR (composite reliability) values are greater than 0.50. In this case, it is understood that there is convergent validity (30). It is understood that the factor loadings are between 0.662 and 0.839. It is stated that factor loadings above 0.40 may be sufficient in the social sciences.

Table 4. Organizational Culture Confirmatory Factor Analysis Findings

Constructs	Items	Estimate*	Estimate**	S.E.	C.R.	α	AVE***	CR****
Clan Culture	CL4 <--- Clan	0.791	1			.842	0.576	0.843
	CL3 <--- Clan	0.839	1.073	0.062	17.364			
	CL2 <--- Clan	0.671	0.688	0.051	13.422			
	CL1 <--- Clan	0.725	0.86	0.059	14.7			
Adhocracy Culture	Ad4 <--- Adhocracy	0.799	1			.865	0.634	0.874
	Ad3 <--- Adhocracy	0.824	1.177	0.066	17.75			
	Ad2 <--- Adhocracy	0.774	1.049	0.064	16.415			
	Ad1 <--- Adhocracy	0.789	1.1	0.074	14.791			
Market Culture	Mk4 <--- Market	0.743	1			.826	0.518	0.811
	Mk3 <--- Market	0.718	0.852	0.062	13.771			
	Mk2 <--- Market	0.675	0.901	0.07	12.819			
	Mk1 <--- Market	0.743	1.037	0.073	14.224			
Hierarchy Culture	Hi4 <--- Hierarchy	0.662	1			.843	0.554	0.832
	Hi3 <--- Hierarchy	0.772	1.206	0.082	14.663			
	Hi2 <--- Hierarchy	0.741	1.103	0.092	11.99			
	Hi1 <--- Hierarchy	0.797	1.27	0.101	12.592			

Note. Estimate* = standardized regression weight; Estimate** = unstandardized regression weight; S.E. = standard error; C.R. = critical ratio; α = Cronbach's alpha; AVE = average variance extracted; CR = composite reliability. AVE values above .50 and composite reliability values above .70 were considered acceptable based on commonly used criteria in the measurement model literature (31,32).

The CFA findings for the violence prevention climate scale are presented in Figure 3 and Table 5.



CMIN=311,339; DF=129; CMIN/DF=2,413; p=,000; RMSEA=,060; CFI=,957; GFI=,918

Figure 3. Violence Prevention Climate CFA Results

When Figure 3 and Table 5 are examined together, the CFA results for the violence prevention climate indicate an acceptable model fit. The fit indices were within acceptable ranges: $\chi^2/df = 2.413$, GFI = 0.918, CFI = 0.957, and RMSEA = 0.060. These results support the three-dimensional structure of the violence prevention climate scale.

Table 5 shows that the reliability coefficients are greater than 0.70 (Policies and procedures: 0.869, Practices and responses: 0.862, Pressure for unsafe practices: 0.925). The AVE (convergent validity) and CR (composite reliability) values are greater than 0.50. In this case, convergent validity is understood to exist (30). Factor loadings are understood to be between 0.647 and 0.912. It is stated that factor loadings above 0.40 may be sufficient in the social sciences.

Table 5. Violence Prevention Climate Confirmatory Factor Analysis Findings

Constructs	Items	Estimate*	Estimate**	S.E.	C.R.	α	AVE***	CR****
Policies and procedures	PP5 <---Policies and procedures	0.760	1			.869	0.518	0.865
	PP4 <---Policies and procedures	0.731	1.11	0.077	14.382			
	PP3 <---Policies and procedures	0.731	0.977	0.068	14.362			
	PP2 <---Policies and procedures	0.647	0.846	0.068	12.519			
	PP1 <---Policies and procedures	0.733	0.965	0.067	14.426			
	PP6 <---Policies and procedures	0.713	0.896	0.064	13.992			
Practices and responses	PR5 <---Practices and responses	0.700	1			.862	0.513	0.863
	PR4 <--- Practices and responses	0.700	0.963	0.076	12.695			
	PR3 <--- Practices and responses	0.752	1.042	0.077	13.583			
	PR2 <--- Practices and responses	0.765	1.108	0.08	13.799			
	PR1 <--- Practices and responses	0.726	0.967	0.074	13.135			
	PR6 <--- Practices and responses	0.649	0.968	0.082	11.823			
Pressure for unsafe practices	PUP5 <---Pressure for unsafe practices	0.850	1			.925	0.662	0.921
	PUP4 <--- Pressure for unsafe practices	0.912	1.069	0.045	23.97			
	PUP3 <--- Pressure for unsafe practices	0.898	1.07	0.046	23.398			
	PUP2 <--- Pressure for unsafe practices	0.780	0.966	0.052	18.504			
	PUP1 <--- Pressure for unsafe practices	0.710	0.829	0.052	16.051			
	PUP6 <--- Pressure for unsafe practices	0.709	0.865	0.045	19.249			

Note. Estimate* = standardized regression weight; Estimate** = unstandardized regression weight; S.E. = standard error; C.R. = critical ratio; α = Cronbach's alpha; AVE = average variance extracted; CR = composite reliability. AVE and composite reliability values were evaluated based on commonly used measurement model criteria in the SEM literature (31,32).

Normality Test Findings

For the normality test, kurtosis and skewness values were considered. It is stated that skewness and kurtosis values should be between -1.5 and +1.5 (30), while another source states that the kurtosis value should be less than +7 (30). The findings of the normality test conducted on the variables of the study are presented in Table 6.

Table 6. Normality Test Findings

Factors	N	Mean	Standard Deviation	Skewness	Kurtosis	Min	Max
Clan Culture	388	4.10	0.576	-0.864	1.640	1.75	5.00
Adhocracy Culture	388	4.07	0.655	-0.860	0.986	1.50	5.00
Market Culture	388	4.16	0.574	-1.022	2.027	1.75	5.00
Hierarchy Culture	388	4.17	0.562	-1.503	5.592	1.00	5.00
Policies and Procedures	388	4.19	0.493	-0.728	1.194	2.17	5.00
Practices and Responses	388	4.14	0.515	-1.127	2.316	2.00	5.00
Pressure for Unsafe Practices	388	1.94	0.783	1.208	1.289	1.00	5.00

As shown in Table 6, the skewness values ranged from -1.503 to 1.208, while the kurtosis values ranged from 0.986 to 5.592. Although the skewness value for hierarchy culture was slightly below the commonly accepted

threshold of -1.50, the overall skewness and kurtosis values did not indicate a severe deviation from normality. Considering the sample size and the distributional characteristics of the variables, the data were considered suitable for parametric analyses.

Common Method Bias

Common method bias was assessed using Harman's single-factor test. All items from the organizational culture and violence prevention climate scales were entered into an unrotated exploratory factor analysis. The first factor explained 40.644% of the total variance, which was below the commonly used 50% threshold. Therefore, common method bias was not considered a severe concern in this study.

Table 7. Common Method Bias Assessment Using Harman's Single-Factor Test

Test	Number of Items	Variance Explained by the First Factor	Threshold	Interpretation
Harman's single-factor test	34	40.644%	< 50%	Common method bias was not considered severe

Note. Harman's single-factor test was used as a diagnostic procedure for assessing common method bias. A first-factor variance below 50% was interpreted as indicating that common method bias was not a severe concern (33).

Discriminant Validity

Discriminant validity was first evaluated using the Fornell–Larcker criterion. As shown in Table 8, the square root of AVE was higher than the highest inter-construct correlation for clan culture, adhocracy culture, hierarchy culture, and pressure for unsafe practices. However, the criterion was not fully met for market culture, policies and procedures, and practices and responses. These findings indicate that although discriminant validity was supported for several constructs, some dimensions showed conceptual and empirical proximity. Therefore, additional chi-square difference tests were conducted for highly correlated construct pairs.

Table 8. Discriminant Validity Assessment Using the Fornell–Larcker Criterion

Construct	√AVE	Highest Inter-Construct Correlation	Result
Clan Culture	.759	.732	Supported
Adhocracy Culture	.796	.732	Supported
Market Culture	.720	.727	Borderline; not fully supported
Hierarchy Culture	.744	.685	Supported
Policies and Procedures	.720	.753	Not supported
Practices and Responses	.716	.753	Not supported
Pressure for Unsafe Practices	.814	.444	Supported

Note. √AVE = square root of average variance extracted. Discriminant validity was assessed using the Fornell–Larcker criterion (31).

To further assess discriminant validity, chi-square difference tests were conducted by comparing two-factor models with alternative one-factor models for highly correlated construct pairs. As shown in Table 9, the two-factor models demonstrated significantly better fit than the corresponding one-factor models for all tested pairs. Following SEM model comparison procedures (32), these findings provide additional support for discriminant validity, despite the conceptual proximity observed between some dimensions.

Table 9. Chi-Square Difference Tests for Discriminant Validity

Construct Pair	Two-Factor χ^2	df	One-Factor χ^2	df	$\Delta\chi^2$	Δdf	p	Result
Clan Culture – Adhocracy Culture	114.611	19	193.124	20	78.513	1	.001	Supported
Adhocracy Culture – Market Culture	109.166	19	169.985	20	60.819	1	< .001	Supported
Market Culture – Hierarchy Culture	74.740	19	159.359	20	84.619	1	< .001	Supported
Policies and Procedures – Practices and Responses	254.545	53	330.959	54	76.414	1	< .001	Supported

Correlation Analysis Findings

This section presents the bivariate associations between organizational culture types and violence prevention climate dimensions. Correlation coefficients were interpreted using their absolute values, with values below .30 considered low, values between .30 and .70 considered moderate, and values of .70 and above considered high (30). The correlation analysis findings are presented in Table 10.

Table 10. Correlation Analysis Findings

Dimensions	1	2	3	4	5	6	7
1. Clan Culture	1						
2. Adhocracy Culture	.732**	1					
3. Market Culture	.591**	.727**	1				
4. Hierarchy Culture	.493**	.571**	.685**	1			
5. Policies and Procedures	.653**	.635**	.649**	.576**	1		
6. Practices and Responses	.618**	.629**	.643**	.588**	.753**	1	
7. Pressure for Unsafe Practices	-.376**	-.275**	-.327**	-.325**	-.444**	-.345**	1

** . Correlation is significant at the 0.01 level.

As shown in Table 10, all organizational culture dimensions were positively and significantly associated with the policies and procedures dimension of the violence prevention climate. The correlation coefficients were moderate in magnitude, ranging from $r = .576$ to $r = .653$. Similarly, all organizational culture dimensions were positively and significantly associated with the practices and responses dimension, with correlation coefficients ranging from $r = .588$ to $r = .643$.

The results also showed significant negative bivariate associations between organizational culture dimensions and pressure for unsafe practices. The correlations were moderate for clan culture, market culture, and hierarchy culture, whereas the association between adhocracy culture and pressure for unsafe practices was low but significant. In addition, relatively high correlations were observed among some organizational culture dimensions, particularly between clan culture and adhocracy culture and between adhocracy culture and market culture. Given these intercorrelations, simultaneous regression analyses were conducted to examine the unique association of each culture type with violence prevention climate after controlling for shared variance among the culture dimensions.

Simultaneous Regression Analyses

Simultaneous multiple regression analyses were conducted to examine the unique associations of each organizational culture type with the three dimensions of violence prevention climate. In each model, clan culture, adhocracy culture, market culture, and hierarchy culture were entered together as independent variables, allowing the shared variance among culture dimensions to be taken into account.

As shown in Table 11, clan culture, market culture, and hierarchy culture were significantly and positively associated with policies and procedures, whereas adhocracy culture was not significant. The model explained 55.4% of the variance in policies and procedures. For practices and responses, all four culture types showed significant positive associations, and the model explained 53.2% of the variance. For pressure for unsafe practices, clan culture and hierarchy culture showed significant negative associations, market culture was not significant, and adhocracy culture showed a significant positive association. This model explained 17.8% of the variance in pressure for unsafe practices. The VIF values ranged from 1.940 to 3.039, suggesting that severe multicollinearity was not present.

Table 11. Simultaneous Regression Analyses Predicting Violence Prevention Climate Dimensions

Dependent Variable	Predictor	B	SE	β	t	p	95% CI for B	VIF
Policies and Procedures	Clan Culture	.296	.043	.346	6.826	< .001	[.210, .381]	2.203
	Adhocracy Culture	.073	.045	.097	1.629	.104	[-.015, .161]	3.039
	Market Culture	.218	.049	.254	4.469	< .001	[.122, .314]	2.766
	Hierarchy Culture	.155	.042	.177	3.719	< .001	[.073, .237]	1.940
Practices and Responses	Clan Culture	.246	.046	.275	5.310	< .001	[.155, .337]	2.203
	Adhocracy Culture	.104	.048	.132	2.170	.031	[.010, .198]	3.039
	Market Culture	.213	.052	.237	4.082	< .001	[.110, .316]	2.766

	Hierarchy Culture	.197	.045	.214	4.402	< .001	[.109, .284]	1.940
Pressure for Unsafe Practices	Clan Culture	-.454	.093	-.335	-4.870	< .001	[-.638, -.271]	2.203
	Adhocracy Culture	.193	.096	.161	1.997	.047	[.003, .382]	3.039
	Market Culture	-.191	.105	-.140	-1.814	.070	[-.397, .016]	2.766
	Hierarchy Culture	-.218	.090	-.156	-2.426	.016	[-.395, -.041]	1.940

Note. B = unstandardized coefficient; SE = standard error; β = standardized coefficient; CI = confidence interval; VIF = variance inflation factor. Model statistics: Policies and Procedures, $R = .744$, $R^2 = .554$, adjusted $R^2 = .549$, Durbin–Watson = 1.885; Practices and Responses, $R = .729$, $R^2 = .532$, adjusted $R^2 = .527$, Durbin–Watson = 1.631; Pressure for Unsafe Practices, $R = .422$, $R^2 = .178$, adjusted $R^2 = .170$, Durbin–Watson = 1.476.

Hypothesis Testing Summary

The study hypotheses were evaluated based on the simultaneous regression models. As shown in Table 12, H_1 was supported: clan culture was positively associated with policies and procedures and practices and responses, and negatively associated with pressure for unsafe practices. H_2 was partially supported: adhocracy culture was positively associated with practices and responses, was not significantly associated with policies and procedures, and was positively associated with pressure for unsafe practices. H_3 was supported: hierarchy culture was positively associated with policies and procedures and practices and responses, and negatively associated with pressure for unsafe practices. H_4 was partially supported: market culture was positively associated with policies and procedures and practices and responses, but its association with pressure for unsafe practices was not statistically significant.

Table 12. Summary of Hypothesis Testing

Hypothesis	Expected Relationship	Main Finding	Result
H_1	Clan culture is associated with a more favorable violence prevention climate through trust, cohesion, participation, and mutual support.	Clan culture was positively associated with policies and procedures and practices and responses, and negatively associated with pressure for unsafe practices	Supported
H_2	Adhocracy culture is associated with violence prevention climate through flexibility, innovation, and adaptive responses	Adhocracy culture was positively associated with practices and responses, not significant for policies and procedures, and positively associated with pressure for unsafe practices	Partially supported
H_3	Hierarchy culture is associated with a more favorable violence prevention climate through formalization, role clarity, standard procedures, and managerial control.	Hierarchy culture was positively associated with policies and procedures and practices and responses, and negatively associated with pressure for unsafe practices	Supported
H_4	Market culture is associated with violence prevention climate through performance orientation, goal achievement, and accountability	Market culture was positively associated with policies and procedures and practices and responses, but not significantly associated with pressure for unsafe practices	Partially supported

DISCUSSION

This study examined the perceived associations between organizational culture and violence prevention climate among healthcare workers in public and private healthcare institutions in Zonguldak, Türkiye. The findings should be interpreted within the limits of a cross-sectional and self-reported research design. Accordingly, the results indicate statistical associations between employees' perceptions of organizational culture and their perceptions of violence prevention climate, rather than causal effects of organizational culture on violence prevention climate.

The simultaneous regression models revealed a more nuanced pattern that was not fully captured by the bivariate correlations. The four organizational culture types were not uniformly associated with all dimensions of violence prevention climate. Clan, market, and hierarchy cultures were positively associated with policies and procedures, whereas adhocracy culture was not significant. For practices and responses, all four culture types showed significant positive associations. For pressure for unsafe practices, clan and hierarchy cultures were negatively associated, market culture was not significant, and adhocracy culture showed a positive association. These findings

suggest that different cultural orientations may be associated with violence prevention climate through different organizational mechanisms rather than through a single general pathway.

From the perspective of the Competing Values Framework, the consistent role of clan culture is theoretically meaningful. Clan culture emphasizes trust, cohesion, participation, communication, and mutual support (14–16). These values may be particularly relevant to violence prevention climate because employees may be more willing to report violent incidents and trust managerial responses when they perceive the organization as supportive and relationally cohesive. The positive association of clan culture with policies and procedures and practices and responses, together with its negative association with pressure for unsafe practices, suggests that relational support may strengthen both the formal and response-related aspects of violence prevention climate. This interpretation is consistent with the view that prevention climate depends not only on written rules but also on employees' perceptions that managers and colleagues take violence-related concerns seriously (19).

Hierarchy culture was also associated with a more favorable violence prevention climate. This finding can be interpreted through the formalization and control logic of the Competing Values Framework (14–16). Violence prevention in healthcare institutions requires clear procedures, incident documentation, reporting channels, managerial accountability, and consistent enforcement. Therefore, hierarchical values may support prevention climate when they are translated into visible policies and reliable administrative responses. However, this interpretation requires caution. Highly hierarchical systems may also discourage employee voice, reduce psychological safety, or make employees reluctant to report violence if formal authority structures are perceived as punitive. In the present study, the negative association between hierarchy culture and pressure for unsafe practices suggests that formal rules and procedural consistency may have been perceived as protective rather than restrictive.

The findings regarding market culture should be interpreted carefully. Market culture was positively associated with policies and procedures and practices and responses, but it was not significantly associated with pressure for unsafe practices in the simultaneous regression model. This pattern suggests that performance orientation and accountability may support visible prevention policies and managerial responsiveness when safety is incorporated into institutional performance expectations. However, market-oriented cultures may also create tension between productivity and safety if efficiency demands encourage employees to bypass prevention procedures. Therefore, market culture may be more favorable for violence prevention climate when performance goals are aligned with safety accountability. The non-significant association with pressure for unsafe practices further suggests that productivity-oriented values alone may be insufficient to reduce perceived unsafe practice pressure.

A noteworthy finding concerns adhocracy culture. Although adhocracy culture was positively associated with practices and responses, it was not significantly associated with policies and procedures and showed a positive association with pressure for unsafe practices in the simultaneous regression model. This pattern may partly reflect a suppression pattern or shared variance among organizational culture dimensions, because the bivariate correlation between adhocracy culture and pressure for unsafe practices was negative. When clan, market, and hierarchy cultures were entered into the model simultaneously, the remaining unique component of adhocracy culture may have captured flexibility, autonomy, and experimentation without sufficient formal control. In healthcare settings, flexibility and innovation may support adaptive responses to emerging violence risks, but they may also be associated with ambiguity if they are not balanced with clear procedures and safety boundaries. Therefore, the adhocracy finding should be interpreted cautiously and examined in future studies using longitudinal designs and additional organizational control variables.

Overall, the findings point to two complementary interpretations. First, each organizational culture type may be associated with violence prevention climate through a distinct organizational mechanism: clan culture through trust and support, hierarchy culture through formal rules and accountability, adhocracy culture through adaptive responses, and market culture through performance-oriented accountability. Second, the relatively strong associations among several culture dimensions may also reflect a broader perception of positive organizational functioning rather than completely distinct cultural orientations. This interpretation is relevant because organizational culture and violence prevention climate were both measured through self-reported perceptions at the same time point. Although the common method bias and discriminant validity analyses supported the measurement approach, future studies should examine these relationships using multi-source data, objective incident records, and longitudinal designs.

The present findings are broadly consistent with previous research emphasizing the organizational roots of workplace violence prevention in healthcare settings. Arnetz et al. (18) reported that organizational safety climate and staff interaction factors were associated with verbal and physical workplace violence among hospital workers. In line with this evidence, the present study suggests that violence prevention climate is not solely an individual-level perception but is also embedded in broader organizational conditions such as support, procedural clarity, managerial responsiveness, and accountability. The significant associations of clan and hierarchy cultures with more favorable violence prevention climate dimensions support the argument that both relational and formal organizational mechanisms are relevant for violence prevention.

The findings also contribute to previous research on violence prevention climate. Yesildag et al. (19) reported that violence prevention climate is related to healthcare workers' safety and workplace happiness, emphasizing that employees expect managers to take violence reports seriously. The present study complements this evidence by indicating that employees' perceptions of violence prevention climate are associated with specific organizational culture orientations. In particular, the positive association between clan culture and practices and responses is consistent with the idea that trust, communication, and perceived managerial concern may increase employees' confidence in organizational responses to workplace violence.

The role of hierarchy culture in the present study is also compatible with prior work emphasizing the importance of formal organizational systems in healthcare safety. Violence prevention requires written policies, reporting procedures, documentation, and consistent enforcement. Therefore, the positive association of hierarchy culture with policies and procedures and practices and responses suggests that formalization may be beneficial when it supports clarity, accountability, and reliable managerial action. However, this finding should be interpreted carefully because excessive bureaucracy or punitive authority structures may discourage reporting. Accordingly, the present findings support a balanced interpretation of hierarchy culture: formal rules may strengthen violence prevention climate when they are accompanied by accessible and non-punitive reporting mechanisms.

The findings regarding market and adhocracy cultures suggest that not all organizational culture orientations are uniformly associated with a more favorable violence prevention climate. The non-significant association between market culture and pressure for unsafe practices suggests that performance orientation alone may not be sufficient to reduce safety-related pressure unless productivity expectations are balanced with employee safety. Similarly, the positive association between adhocracy culture and pressure for unsafe practices in the simultaneous regression model differed from the bivariate association and may partly reflect shared variance or a suppression pattern. This pattern suggests that flexibility and innovation may support adaptive responses to workplace violence, but they may also be associated with ambiguity when they are not accompanied by clear procedures and safety boundaries.

The present findings are also consistent with broader healthcare management literature indicating that organizational culture is relevant to healthcare quality, employee well-being, and sustainable service delivery. Hoxha et al. (23) emphasized the role of organizational culture in sustainable healthcare quality and job satisfaction. From this perspective, violence prevention climate can be considered part of a wider organizational quality and safety agenda. Protecting healthcare workers from violence is closely related to patient safety, service continuity, and institutional sustainability.

Institution-type comparisons provided contextual information about public and private healthcare institutions in the present sample. Healthcare workers working in public institutions reported higher perceptions of clan, adhocracy, market, and hierarchy cultures than those working in private institutions. They also reported higher scores for policies and procedures and practices and responses. However, no significant difference was found between public and private healthcare workers for pressure for unsafe practices.

This pattern may indicate that public healthcare institutions in the present sample were perceived as having more visible organizational structures, clearer prevention policies, and more established response mechanisms for workplace violence. Public institutions may have more formalized administrative procedures, reporting channels, and institutional accountability mechanisms, which may be reflected in employees' perceptions of violence prevention policies and managerial responses. However, this interpretation should be made cautiously because the study was not designed as a stratified comparison of public and private institutions.

The absence of a significant difference in pressure for unsafe practices is also noteworthy. This result suggests that workload-related, productivity-related, or peer-related pressures that may lead employees to bypass violence

prevention procedures are not limited to a specific institution type. Such pressures may reflect broader characteristics of healthcare work, including time constraints, patient volume, emotional labor, and service continuity demands. Therefore, violence prevention efforts should address not only formal institutional policies but also daily work pressures that may weaken the implementation of these policies in both public and private healthcare settings.

Practical Implications

The findings offer several evidence-informed practical implications for healthcare managers and policymakers. First, violence prevention should not be limited to the existence of written policies. Although policies and procedures are necessary, employees' perceptions of managerial responsiveness, follow-up practices, and organizational support also appear to be important. Therefore, healthcare institutions should ensure that violence prevention policies are visible, understandable, consistently implemented, and supported by clear reporting and feedback mechanisms.

Second, the findings suggest that a supportive organizational culture may be associated with a more favorable violence prevention climate. Clan-oriented practices such as open communication, employee participation, peer support, and trust in management may encourage healthcare workers to report violent incidents and seek organizational support. Managers should therefore create psychologically safe reporting environments where employees can communicate violence-related concerns without fear of blame or retaliation.

Third, hierarchy-oriented mechanisms may also be useful when they are implemented constructively. Clear procedures, standardized incident reporting systems, documentation practices, role clarity, and managerial accountability may contribute to a more favorable violence prevention climate. However, formalization should not become punitive or overly bureaucratic. Reporting systems should be accessible, transparent, and accompanied by timely managerial responses.

Fourth, performance-oriented management practices should be aligned with safety priorities. Market-oriented cultures may support violence prevention when safety is treated as an institutional performance criterion. However, excessive emphasis on productivity, efficiency, or patient throughput may create tension with employee safety and increase perceived pressure for unsafe practices. Therefore, healthcare managers should balance performance expectations with employee safety, violence prevention, and ethical service delivery.

Finally, innovation-oriented practices should be integrated with formal safety structures. Digital reporting systems, simulation-based training, early warning procedures, and flexible intervention protocols may help improve organizational responses to workplace violence. However, innovation and flexibility should be supported by clear rules and accountability mechanisms to prevent ambiguity in violence prevention practices.

Limitations and Future Research

This study has several limitations that should be considered when interpreting the findings. First, the study used a cross-sectional design. Therefore, although significant associations were found between perceived organizational culture and violence prevention climate, causal relationships or temporal ordering cannot be inferred. Longitudinal studies are needed to examine whether changes in organizational culture are followed by changes in violence prevention climate over time.

Second, the data were collected using convenience sampling from healthcare workers in public and private healthcare institutions in Zonguldak, Türkiye. Therefore, the sample cannot be considered statistically representative of all healthcare workers in Türkiye. The findings should be generalized cautiously, particularly to different regions, hospital types, occupational groups, and healthcare systems. Future research should use probability-based sampling strategies and larger multi-region samples.

Third, all variables were measured using self-reported questionnaires at a single point in time. Although Harman's single-factor test suggested that common method bias was not a severe concern, this procedure cannot completely eliminate the possibility of common method variance. Future studies should use multi-source data, such as supervisor assessments, institutional records, incident reports, or objective workplace violence indicators.

Fourth, the study focused on employees' perceptions of organizational culture and violence prevention climate rather than directly measuring actual workplace violence incidents or observed managerial practices. Therefore, the findings reflect perceived organizational conditions. Future research should examine whether these

perceptions are consistent with actual reporting systems, documented violence incidents, and institutional prevention practices.

Fifth, although public and private healthcare workers were compared, the study was not designed as a stratified public–private institutional comparison. The number of participants from public and private institutions was unequal, and institutional characteristics such as hospital size, patient volume, staffing levels, clinical unit, and management structure were not controlled. Therefore, institution-type differences should be interpreted as exploratory contextual findings.

Finally, the organizational culture dimensions were moderately to strongly correlated with each other. Although discriminant validity analyses supported the empirical distinction among the constructs, future studies should further examine whether healthcare workers perceive clan, adhocracy, market, and hierarchy cultures as clearly distinct or as part of a broader perception of positive organizational functioning. Future research may also test more complex models including workload, staffing adequacy, leadership style, psychological safety, prior exposure to violence, and safety climate as mediators or moderators.

CONCLUSION

This study examined the perceived associations between organizational culture and violence prevention climate among healthcare workers in public and private healthcare institutions in Zonguldak, Türkiye. The findings showed that organizational culture types were associated with different dimensions of violence prevention climate, but these associations were not uniform across all culture types.

Clan culture and hierarchy culture showed the most consistent associations with a favorable violence prevention climate. Clan culture was positively associated with policies and procedures and practices and responses, and negatively associated with pressure for unsafe practices. Similarly, hierarchy culture was positively associated with the formal and response-related dimensions of violence prevention climate and negatively associated with pressure for unsafe practices. These findings suggest that both relational support and procedural clarity may be important for violence prevention climate in healthcare settings.

The findings for market and adhocracy cultures were more complex. Market culture was positively associated with policies and procedures and practices and responses, but it was not significantly associated with pressure for unsafe practices. Adhocracy culture was positively associated with practices and responses, but not with policies and procedures, and it showed a positive association with pressure for unsafe practices in the simultaneous regression model. These results suggest that flexibility, innovation, and performance orientation should be interpreted carefully in healthcare settings and balanced with clear safety procedures and managerial accountability.

Institution-type comparisons showed that public healthcare workers reported higher perceptions of organizational culture, policies and procedures, and practices and responses than private healthcare workers, whereas pressure for unsafe practices did not differ significantly by institution type. This finding suggests that formal prevention policies and managerial responses may be perceived differently across institutional contexts, while workload- or productivity-related pressures may be common across both public and private healthcare settings.

Overall, the study contributes to the healthcare management and occupational health literature by integrating the Competing Values Framework with violence prevention climate research. The findings suggest that violence prevention in healthcare institutions may depend not only on formal policies but also on supportive relationships, reliable reporting systems, managerial responsiveness, and a balance between performance expectations and safety priorities. However, because the study used a cross-sectional design, convenience sampling, and self-reported data, the findings should be interpreted as statistical associations rather than causal evidence. Future studies using longitudinal, multi-source, and multi-region designs are needed to further clarify the relationship between organizational culture and violence prevention climate.

AUTHOR CONTRIBUTIONS STATEMENT

Both authors contributed to the conceptualization, methodology, data collection, data analysis, writing, review, and final approval of the manuscript.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

SOURCE OF FUNDING STATEMENTS

This research received no financial support from any institution or organization.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, AI-assisted tools, including ChatGPT, Paperpal, and DeepL, were used for literature support, academic language editing, and English translation. The authors reviewed and approved the final content and take full responsibility for the manuscript.

ACKNOWLEDGEMENTS

The authors would like to thank all healthcare workers who voluntarily participated in this study.

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