

Work Climate, Occupational Stress, and Interpersonal Relationship Satisfaction in the Bureau of Fire Protection: A Prediction Study

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Abstract

This study examined the impact of work climate and stress on interpersonal relationships among Bureau of Fire Protection (BFP) personnel in the Philippines. Employing a quantitative correlational design, data were gathered from 309 respondents using validated instruments, the Work Climate Questionnaire, Occupational Stress Scale, and Interpersonal Relationship Satisfaction Scale through face-to-face surveys. Descriptive analysis revealed that work climate and interpersonal relationships were rated very high, while stress levels were low. Correlational findings showed a significant positive relationship between work climate and interpersonal relationships, and a modest negative relationship between stress and interpersonal relationships. Regression analysis confirmed that work climate was a strong positive predictor of interpersonal relationship quality, whereas stress had a weaker but statistically significant negative predictive effect. These results underscore that a supportive and well-structured work climate enhances interpersonal dynamics among fire personnel, while elevated stress levels tend to erode relational satisfaction. The findings align with Relational Systems Theory and Conservation of Resources Theory, emphasizing the role of environmental and psychological factors in shaping workplace relationships.

Keywords: firefighting, work climate, stress, interpersonal relationships, regression analysis, Philippines

Introduction

A serious organizational risk within the Bureau of Fire Protection (BFP) is the breakdown of interpersonal relationships, which manifests as poor communication, decreased trust, and weakened teamwork in life-or-death situations. According to research, workplace support, independent functioning, and operational efficiency, all crucial for a successful fire response, are directly threatened by these relational breakdowns (Sabalosa, 2024). The BFP faces the potential for catastrophic failures in emergency coordination that will inevitably jeopardize public safety and put firefighters and the communities they protect in danger if prompt action is not taken to restore camaraderie, promote mutual respect, and foster cooperative dynamics.

On the other hand, interpersonal relationship satisfaction among BFP personnel can be a challenging issue with adverse implications for the organization. Poor interpersonal relationships can lead to conflicts, misunderstandings, and decreased productivity. Firefighters often experience psychosocial stressors, including interpersonal conflict and concerns over relationships, which can lead to anxiety and burnout (Igboanugo et al., 2021). Additionally, by studying interpersonal relationship satisfaction and building on

existing research, we can gain valuable insights into fostering positive, healthy connections, ultimately enhancing personal and professional interactions (Hart, 2023).

Work climate and occupational stress are two significant factors that can impact interpersonal relationship satisfaction in the workplace. A favorable work climate can foster healthy relationships among colleagues, while occupational stress can create tension and conflict. Research has shown that the relationship between work climate and interpersonal relationship satisfaction is complex and multifaceted (Gerhardt et al., 2021). According to a study, a favorable work climate is associated with higher levels of trust, cooperation, and communication among colleagues. This can lead to better teamwork and more effective collaboration, ultimately resulting in improved job satisfaction and productivity. On the other hand, a hostile work climate can foster mistrust, competition, and conflict, leading to poor interpersonal relationships and decreased job satisfaction (Hofmann & Maillet, 2020).

Occupational stress, on the other hand, can significantly impact interpersonal relationship satisfaction. When individuals are experiencing high levels of occupational stress, they may become irritable, snappish, and less willing to engage in social interactions. This can lead to misunderstandings, miscommunications, and conflicts with colleagues. Moreover, stress can lead to emotional exhaustion, making it challenging for individuals to maintain positive relationships with others. (Kahn & Byosiere, 2020)

Work climate and occupational stress significantly impact interpersonal relationship satisfaction in the workplace. Understanding the connections between these variables can help organizations create a positive work environment that fosters healthy relationships among colleagues, ultimately leading to improved job satisfaction and productivity (Magnavita et al., 2025).

Interpersonal relationship satisfaction in the workplace is crucial for effective communication, collaboration, and teamwork. A favorable work climate has been shown to foster healthy interpersonal relationships. According to a study by Smith et al. (2021), a supportive work climate promotes trust, cooperation, and open communication among colleagues. On the other hand, the most important source of stress was organizational factors, such as ineffective communication, favoritism, and inadequate recognition of performance. Adding to this point, there is a significant association between job stress and decreased job performance, which can further contribute to interpersonal conflicts (Sutherland & Cooper, 2020).

The literature suggests that an inclusive work climate can act as a buffer against stressors, thereby positively influencing employees' well-being and interpersonal relationships (Johnson et al., 2020). Various strategies have been proposed to mitigate workplace stress and enhance interpersonal relationships. It emphasized the importance of providing stress management programs and resources to help employees cope with work-related stress (Smith & Johnson, 2021).

This literature review highlights the correlation between work climate, occupational stress, and interpersonal relationship satisfaction among BFP personnel. The findings indicate that a favorable work climate can reduce occupational stress and enhance interpersonal relationship satisfaction. On the contrary, high stress levels can strain relationships and hinder effective communication. By implementing strategies to improve the work climate and reduce occupational stress, organizations can foster positive interpersonal relationships among their personnel.

To illustrate this point, organizations, including BFP, should consider implementing strategies that foster a positive work environment and address occupational stressors. By doing so, they can enhance the overall quality of interpersonal relationship satisfaction among their personnel, ultimately leading to a more effective and cohesive firefighting team.

The research gap in this study lies in the lack of prior investigation into the specific relationship among work climate, occupational stress, and interpersonal relationship satisfaction within the Bureau of Fire Protection (BFP) in the Philippines. While there is existing research on work climate, occupational stress, and interpersonal relationship satisfaction in various work settings, there is a scarcity of studies that focus specifically on the BFP personnel in the Philippines.

This study is unique because it aims to explore the interplay between work climate, occupational stress, and interpersonal relationship satisfaction within the specific context of BFP personnel. By focusing on this occupational group, the study can provide insights into the unique challenges and dynamics that impact interpersonal relationship satisfaction among BFP personnel. Additionally, the study's adaptation of existing instruments from reputable authors ensures the utilization of validated measures, enhancing the credibility and reliability of the findings.

Conducting this study in the Philippines, specifically among BFP personnel, is particularly important and urgent. The nature of the work in the BFP, which involves responding to emergencies, providing rescue services, and ensuring public safety, is inherently stressful and demanding. To address these challenges, the BFP must prioritize relational interventions, equitable policies, and stress-management programs to align with SDG 16's goals.

The primary objective of this study is to examine the impact of Work Climate and Occupational Stress on Interpersonal Relationship Satisfaction among personnel within the Bureau of Fire Protection (BFP). Specifically, the focus is on exploring aspects of the Work Climate of BFP personnel, including: Work satisfaction, productivity/achievement of aims, interpersonal relationships, and performance at work.

The second is to ascertain the effects of occupational stress on BFP personnel, including: Physical environment, job demands, insufficient job, interpersonal conflict, organizational system, lack of rewards, and occupational climate. Third, to assess the interpersonal relationship satisfaction of BFP personnel in terms of: relationship with superiors and peers, support from superiors and peers, and open communication. Also, to determine the correlation between work climate, occupational stress, and interpersonal relationship satisfaction. Lastly, to establish the influence of the independent variables on the dependent variable.

The following null hypotheses will be tested at a 0.05 level of significance: first, there is no significant relationship between a work climate and occupational stress among BFP personnel. Finally, neither work climate nor occupational stress has a statistically significant influence on interpersonal relationship satisfaction among BFP personnel.

This study is anchored in Relational Systems Theory (RST) (Gittell, 2011), which posits that organizational effectiveness in high-risk environments, such as the Bureau of Fire Protection (BFP), depends on relational coordination characterized by frequent, problem-solving communication, shared goals, and mutual respect. A toxic work climate, marked by authoritarian hierarchies and inadequate support, disrupts these relational ties, while occupational stress mediates this relationship by depleting emotional and cognitive resources, thereby exacerbating interpersonal conflicts and undermining teamwork (Hobfoll, 1989; Sabalosa, 2024). Supporting this framework, the Job Demand-Control-Support (JDCS) Model (Karasek & Theorell, 1990) explains how high job demands and low autonomy increase stress, corroding trust and collaboration. Meanwhile, Social Exchange Theory (Blau, 1964) highlights how inequitable rewards erode reciprocity, reducing cooperative behaviors among personnel. Finally, the Conservation of Resources (COR) Theory (Hobfoll, 1989) underscores that occupational stress escalates when critical resources are insufficient, as evidenced by KOSS subscales like "insufficient rest" and "lack

of emotional support". Empirical insights from attached studies, such as the link between open communication and quality of work life and hospital emergency teams' reliance on interpersonal cohesion, further validate these dynamics.

Shown in Figure 1 is the conceptual framework of the study, consisting of independent and dependent variables. The study aims to explore the relationships among workplace conditions, stress, and their impact on interpersonal dynamics among Bureau of Fire Protection (BFP) Personnel. The primary focus is (1) work climate and (2) occupational stress, and the dependent variable (3) interpersonal relationship satisfaction among BFP Personnel. This aims to examine the connection between work climate, occupational stress, and interpersonal relationship satisfaction. Specific indicators support each variable. The first independent variable, Work Climate (Lozano et al., 2021), is measured through four indicators: *Work satisfaction*, which reflects the contentment and fulfillment employees experience in their roles, influenced by factors such as job security, recognition, and growth opportunities. *Productivity / Achievement of Aims* refers to the perceived efficiency and effectiveness in meeting service objectives, including resource adequacy, coordination, and recognition of work outcomes. *Interpersonal Relationships* refer to the qualities of communication, trust, and social cohesion among team members, which influence teamwork and mental well-being. *Performance at Work* refers to the clarity of roles, competence in tasks, and alignment between patient needs and service capabilities.

The second independent variable is Occupational Stress (Chang et al., 2005), measured through seven indicators: *Physical environment* refers to stressors stemming from unsafe or uncomfortable workplace conditions, including hazardous exposures and poor ergonomic setups. *Job demand* captures the psychological pressure resulting from excessive workloads, time constraints, and competing task requirements. *Insufficient job control* denotes the stress associated with limited autonomy, unpredictable work changes, and constrained decision-making latitude. *Interpersonal conflict* encompasses tensions arising from poor workplace relationships and inadequate social support systems. *The organizational system* reflects the stress generated by unfairness policies, ineffective communication channels, and interdepartmental discord. *The lack of reward reflects* the strain caused by perceived inequities in compensation, recognition, and career advancement opportunities. Finally, *occupational climate* addresses culturally specific stressors inherent in work environments, such as rigid hierarchies, gender discrimination, and obligatory social engagements.

The study's dependent variable is interpersonal relationship satisfaction (Begum & Bisaria, 2024). This variable comprises three key indicators: *Relationship with superiors and peers* reflects the quality of

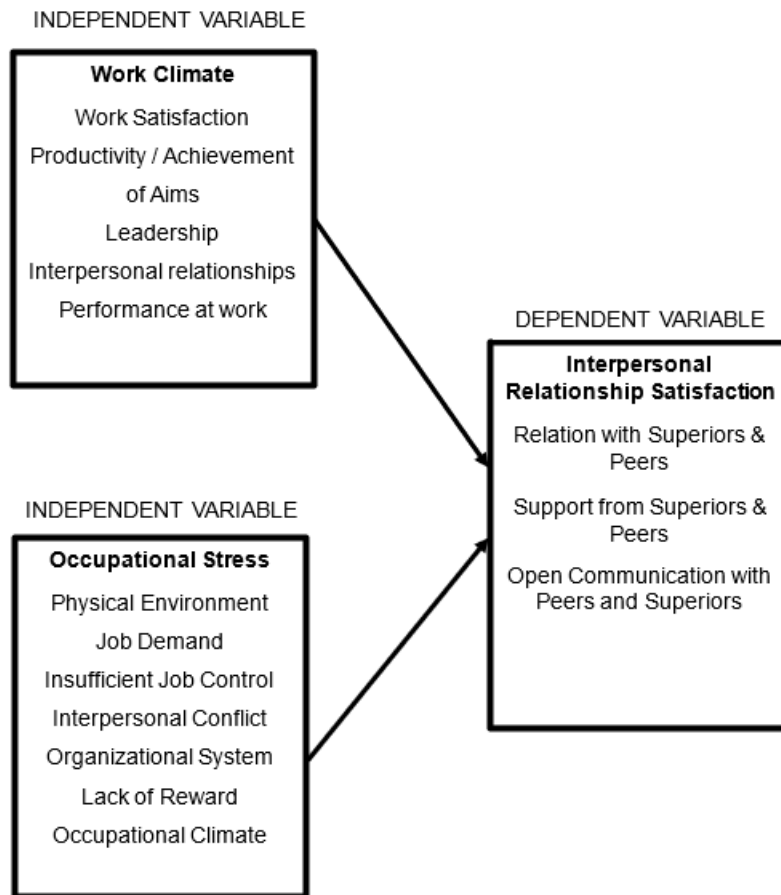


Figure 1. Conceptual Framework of the Study

professional bonds, including mutual respect, fair treatment, and involvement in decision-making processes. *Support from superiors and peers* captures the availability of both emotional and practical assistance in the workplace, such as encouragement, task-related help, and opportunities to share concerns. *Open communication with peers and superiors* measures the degree of transparent, two-way dialogue that facilitates free expression of ideas and satisfaction with workplace interactions. Together, these indicators determine how interpersonal connections influence employees' experiences and satisfaction at work.

This study contributes to the existing literature by focusing on the specific context of Bureau of Fire Protection (BFP) personnel to examine the relationship between work climate, occupational stress, and interpersonal relationship satisfaction. By doing so, it fills a research gap and expands our understanding of the dynamics that influence interpersonal relationship satisfaction within a high-stress occupation. The findings of this study can provide valuable insights and serve as a reference for future research in similar occupational settings worldwide.

The social value of this study is evident in its impact on the well-being and effectiveness of BFP personnel, who are dedicated to public safety and emergency response. By investigating the influence of work climate and occupational stress on interpersonal relationship satisfaction, the study addresses important factors that affect the mental health, job satisfaction, and overall quality of life of BFP personnel. The findings can inform interventions and policies to improve the work environment, reduce stress levels, and enhance interpersonal relationships, ultimately fostering resilience and well-being.

The specific beneficiaries of this study include the BFP as an organization. The findings can directly benefit the BFP by providing insights into the factors influencing interpersonal relationship satisfaction among its personnel. This knowledge can inform the development of targeted strategies and interventions to improve the work climate, reduce stress, and enhance teamwork and operational effectiveness.

BFP personnel themselves are also direct beneficiaries of this study. Understanding the factors that contribute to positive relationships and effective teamwork can lead to improved well-being, job satisfaction, and collaboration among BFP personnel. This, in turn, creates a more fulfilling and productive work experience for them.

Furthermore, future researchers in occupational psychology, organizational behavior, and human resource management can benefit from this study. The methodology, instruments, and findings can serve as a valuable reference for future studies, enabling a deeper understanding of the relationships among work climate, stress, and interpersonal relationship satisfaction across contexts. To address these challenges, the BFP must prioritize relational, equitable policies and stress-management programs to align with SDG 16's goals.

Method

This section outlines the essential components, including the profile of the Bureau of Fire Protection (BFP) personnel who served as respondents, the standardized instruments used to measure work climate, occupational stress, and interpersonal relationship satisfaction, and the research design and procedures implemented during data collection and analysis.

Research Respondent

This study focused exclusively on Bureau of Fire Protection (BFP) Operations personnel in Region XI, comprising 1,559 frontline responders engaged in fire suppression, rescue operations, and emergency management. The sample size of 309 respondents was determined using the Raosoft Sample Size Calculator with a 95% confidence level and 5% margin of error, ensuring statistical reliability for this population (Krejcie & Morgan, 1970). Participants were selected through stratified random sampling, a probability technique that divides the population into homogeneous subgroups based on key characteristics to enhance representativeness and reduce bias. In this study, the population consisted of Bureau of Fire Protection (BFP) personnel in Region 11, stratified by operational categories and station type. Proportional allocation ensured that each stratum's sample size reflected its population proportion, allowing subgroup comparisons and improving generalizability while mitigating imbalances, such as the underrepresentation of rural stations (Lohr, 2021).

Inclusion criteria encompassed currently employed BFP personnel with at least two (2) years of experience working in operations, including emergency response, fire suppression, rescue operations, disaster risk assessment, and hazardous materials management. Exclusion criteria involved personnel in administrative roles, retirees, or those no longer serving in the BFP. Withdrawal criteria specified procedures for participants who revoked consent after initial agreement or discontinued participation mid-survey. The study locale was Region XI, where the BFP operated, depending on the study's scope. The locale encompassed both urban and rural areas, with fire stations, headquarters, and other BFP units dispersed across the area.

Materials and Instruments

This study used three validated instruments to assess work climate, stress, and interpersonal relationships among Bureau of Fire Protection (BFP) personnel. The Work Climate Questionnaire (Lozano et al., 2021) was used to evaluate organizational policies, physical work conditions, and perceived fairness. The Occupational Stress Scale (Chang et al., 2005) was used to measure job-related stress across seven domains: job demand, insufficient control, and interpersonal conflict. Additionally, the Interpersonal Relationship Satisfaction Scale (Begum, 2024) assessed teamwork dynamics and communication quality. Demographic data, including age, rank, and years of service, were collected via a structured questionnaire. The study variables were measured using a 5-point Likert scale. The response scale included the following options: 1 (Strongly Disagree), 2 (Disagree), 3 (Somewhat Agree), 4 (Agree), and 5 (Strongly Agree). The interpretation scale, based on mean scores, categorized the level of manifestation or observation in the work environment as follows: very low (mean range 1.00-1.79, indicating rarely manifested/observed), low (1.80-2.59, seldom manifested/observed), moderate (2.60-3.39, sometimes manifested/observed), high (3.40-4.19, often manifested/observed), and very high (4.20-5.00, always manifested/observed) among BFP personnel. This separation distinguishes participant responses from the analytical interpretations derived from aggregated data. This scaling system was uniformly applied to all measures of work climate, stress, and interpersonal relationship satisfaction. Based on pilot testing and respondent feedback, minor refinements were made to enhance item clarity. The internal consistency reliability of the instruments was assessed using Cronbach's alpha, yielding excellent reliability for the Work Climate Questionnaire ($\alpha = .917$) and the Occupational Stress Scale ($\alpha = .951$), and good reliability for the Interpersonal Relationship Satisfaction Scale ($\alpha = .808$). These results indicate high consistency among the items within each scale. In addition, the instruments underwent content validation by expert validators, who reviewed the items for relevance, clarity, and representativeness of the constructs being measured. The overall validity ratings indicated that the scales were content-valid and appropriate for use in the study.

Design and Procedure

This study employed a quantitative correlational design to examine how work climate and stress predicted interpersonal relationships among BFP personnel. Using regression analysis of survey data (WCQ, KOSS, and IRSS), we quantified the strength and direction of these relationships while controlling for shared variance among the variables. The design directly served the study's predictive focus by identifying significant associations between these workplace factors, though it could not establish causation. This approach was particularly suited to organizational research in the BFP context, where experimental manipulation was impractical but understanding real-world relationships was crucial for developing targeted interventions. Significant findings highlighted areas for immediate attention in BFP operations and provided a foundation for future longitudinal or experimental studies to examine causal mechanisms. To achieve the study's predictive objective, regression analysis was employed to determine the extent to which the independent variables work climate and occupational stress explain variance in the dependent variable, interpersonal relationship satisfaction. This statistical technique was chosen because it allows the researcher to move beyond simple correlation and quantify the predictive power of each factor while controlling for shared variance. Regression analysis is widely recognized in research as a robust method for examining relationships between independent and dependent variables and for generating prediction

models that inform decision-making in organizational and social science contexts (Frost, 2024; Hassan, 2024).

This study employed face-to-face administration of paper-based questionnaires to collect data from BFP personnel. The researcher personally distributed three validated survey instruments: (1) the Work Climate Questionnaire (WCQ) to assess organizational environment, (2) the Occupational Stress Scale (KOSS) to measure job-related stress, and (3) the Interpersonal Relationship Satisfaction Scale (IRSS) to evaluate team dynamics. Participants completed the questionnaires onsite during scheduled sessions, with the researcher available to clarify instructions while maintaining neutrality. Completed forms were immediately closed to ensure confidentiality. This approach enhanced response rates through direct engagement while minimizing missing data by verifying that surveys were fully answered in real time.

The data collected from Bureau of Fire Protection personnel were analyzed using both descriptive and inferential statistical techniques to ensure accurate interpretation of results. Descriptive statistics, specifically the mean and standard deviation, were computed to determine the central tendency and variability of responses for each indicator of work climate, occupational stress, and interpersonal relationship satisfaction. At the same time, frequency and percentage distributions were used to describe the demographic profile of respondents. For inferential statistics, the Pearson Product-Moment Correlation Coefficient (r) was employed to measure the strength and direction of relationships among the variables, and multiple regression analysis was conducted to test the predictive model's intent, identifying the extent to which work climate and stress significantly influenced interpersonal relationship satisfaction. This regression procedure allowed the researcher to quantify the predictive power of each independent variable while controlling for shared variance, thereby validating the study's hypothesis on workplace dynamics (Field, 2018; Tabachnick & Fidell, 2019; Lohr, 2021).

To comply with research ethics, the researchers followed ethical guidelines and obtained informed consent from the participants. Formal approvals were secured from the University of Mindanao Ethics Review Committee with the UMERC protocol number. 2025-357. Measures were taken to ensure participant anonymity and confidentiality. Any personal experiences shared by participants during data collection were handled sensitively and stored securely. The research process adhered to ethical principles, including beneficence, respect for autonomy, and protection of participants' rights and well-being.

Results and Discussion

This section presents the study's findings on work climate, stress, and interpersonal relationships among BFP personnel. It highlighted both descriptive results, which show the overall levels and patterns of the variables, and inferential results, which explain the significant relationships and effects among them.

Work Climate in the Bureau of Fire Protection

Table 1 shows that, on average, the work climate had a mean rating of 4.65 and a standard deviation of 0.39, indicating a very high level. This means that the Bureau of Fire Protection personnel's work climate is always manifested. The closeness of the responses to the mean, as evidenced by a standard deviation below 1, indicates low variance. In the indicator analysis, it was found that the indicator work satisfaction had the highest mean of 4.81 (very high), with a standard deviation of 0.31. In contrast, the indicator performance at work had the lowest mean of 4.52 (very high), with a standard deviation of 0.56, though both are still very high.

Table 1
Level of Work Climate in the Bureau of Fire Protection

Indicators	Mean	SD	Descriptive Level
Work Satisfaction	4.81	0.31	Very High
Productivity / Achievement of Aims	4.64	0.42	Very High
Interpersonal relationships	4.61	0.47	Very High
Performance at work	4.52	0.56	Very High
Overall	4.65	0.39	Very High

The very high descriptive level of the indicator of work satisfaction indicates that Bureau of Fire Protection personnel are delighted with their roles, responsibilities, and organizational conditions, which are consistently experienced within the bureau. The very high descriptive level of the indicators for productivity/achievement of aims, interpersonal relationships, and performance at work shows that personnel affirmed that these were consistently practiced across the organization. Overall, the Bureau of Fire Protection personnel’s high level of work climate indicates a highly positive workplace environment that facilitates effective organizational functioning.

These findings align with research showing that positive work climates, characterized by satisfaction, supportive relationships, and clear achievement pathways, enhance organizational functioning in high-stress service environments. Recent JD-R studies also emphasize that job resources such as teamwork, supportive communication, and autonomy strengthen employee engagement and psychological well-being (Lee & Kim, 2023; Scholze, 2024). The strong interpersonal relationship scores further reflect research showing that cohesion and peer support buffer stress and reduce burnout among emergency responders (Hartwig et al., 2020; Jeung & Chang, 2021). This is consistent with evidence that firefighters who report higher job satisfaction tend to exhibit lower burnout and better stress regulation (Wu et al., 2024).

The demanding and unpredictable nature of firefighting may influence the slightly lower performance rating. Studies note that perceptions of emergency response performance are often shaped by factors such as resource limitations, call volume, and operational pressures, which influence how responders evaluate their own performance (Lee & Kim, 2023). Despite this, the overall strong agreement across indicators suggests that BFP personnel experience a highly supportive and effective work climate.

Occupational Stress in the Bureau of Fire Protection

Table 2 presents the level of occupational stress among Bureau of Fire Protection personnel, with an overall mean of 2.29 and a standard deviation of 0.61, indicating a low level of occupational stress. This suggests that occupational stress is generally seldom experienced across the organization. Among the indicators, job demand recorded the highest mean of 2.74, indicating that workload-related pressures are occasionally present. In contrast, the organizational system had the lowest mean of 1.70, interpreted as very low, indicating that system-related stressors are rarely perceived by personnel.

Table 2

Items	Mean	SD	Descriptive Level
Physical Environment	2.62	1.03	Moderate
Job Demand	2.74	0.90	Moderate
Insufficient Job Control	2.66	0.68	Moderate
Interpersonal Conflict	2.41	0.58	Low

Organizational System	1.70	0.76	Moderate
Lack of Reward	1.80	0.71	Low
Occupational Climate	2.12	0.76	Low
Overall	2.29	0.61	Low

These findings are consistent with the literature, which indicates that although emergency responders frequently encounter operational demands, supportive organizational environments can reduce the likelihood of chronic stress. Studies show that job demands such as workload and urgency may be present but can be mitigated when personnel have effective coping strategies and adequate support systems (Edgelow et al., 2023). The low levels of occupational stress related to interpersonal conflict, lack of reward, and occupational climate also align with evidence that cohesive teams and positive organizational climates help buffer stress and prevent burnout in high-risk occupations (Hartwig et al., 2020; Jeung & Chang, 2021). Similarly, the very low occupational stress associated with organizational systems is supported by research showing that when administrative processes are perceived as fair and transparent, they contribute to psychological safety and reduce stress among public service workers (Fallon et al., 2023). Overall, the results suggest that while specific operational stressors are occasionally experienced, BFP personnel benefit from structural and interpersonal supports that help maintain low overall occupational stress levels.

Interpersonal Relationship Satisfaction in the Bureau of Fire Protection

Table 3 presents the level of interpersonal relationship satisfaction among Bureau of Fire Protection personnel, with an overall mean of 4.52 and a standard deviation of 0.51, indicating very high levels of satisfaction. This indicates that positive interpersonal dynamics are consistently experienced across the organization. Among the indicators, support from superiors and peers obtained the highest mean of 4.57, reflecting a strong perception of assistance, guidance, and solidarity within the workplace. Meanwhile, relations with superiors and peers, and open communication with both, both recorded a mean of 4.49, also interpreted as very high, indicating that personnel view their workplace interactions as positive, respectful, and communicative.

These findings align with research showing that high levels of interpersonal relationship satisfaction and supportive networks contribute significantly to effective functioning in emergency service organizations. Team cohesion, supportive leadership, and open communication help build trust and coordination, thereby enhancing performance and reducing occupational strain in high-risk settings (Hartwig et al., 2020). Caballero et al. (2024) similarly found that organizational support plays a critical role in fostering job satisfaction and engagement among uniformed personnel, indicating that institutional backing strengthens positive relationships within the workplace. This is further supported by evidence that supportive interactions and a positive climate help reduce burnout and improve well-being among firefighters and other emergency responders (Jeung & Chang, 2021; Wu et al., 2024). Overall, the consistently high ratings across all indicators suggest that BFP personnel experience a strong and supportive relational environment that reinforces effective teamwork and organizational stability.

Table 3 Level of Interpersonal Relationship Satisfaction in the Bureau of Fire Protection

Items	Mean	SD	Descriptive Level
Relations with Superiors & Peers	4.49	0.58	Very High
Support from Superiors & Peers	4.57	0.51	Very High

Open communication with peers and superiors	4.49	0.59	Very High
Overall	4.52	0.51	Very High

Relationship between Work Climate and Interpersonal Relationship Satisfaction

Table 4 shows that work climate has a significant positive relationship with interpersonal relationships among Bureau of Fire Protection personnel. The overall correlation coefficient of .564 indicates a moderate to strong positive relationship, suggesting that personnel who experience a more favorable work climate also report stronger interpersonal relationships. Among the indicators of work climate, interpersonal relationships within the climate dimension showed the highest correlation with overall interpersonal relationships ($r = .560, p < .000$), indicating that a supportive and collaborative climate is strongly associated with positive relational dynamics in the workplace. Meanwhile, work satisfaction showed the lowest yet still significant correlation with overall interpersonal relationships ($r = .407, p < .000$). All indicators yielded significant values, demonstrating that improvements in any dimension of the work climate contribute meaningfully to stronger workplace relationships.

These results align with research demonstrating that positive organizational climates cultivate stronger social connections, communication, and collaboration among uniformed personnel. Studies show that supportive environments and fair organizational systems enhance trust, teamwork, and interpersonal functioning in emergency service settings (Hartwig et al., 2020). The strong associations observed are also consistent with findings that supportive climates promote psychological safety, which in turn encourages open communication and healthy peer–superior relationships (Fallon et al., 2023). Caballero et al. (2024) similarly found that organizational support significantly boosts job satisfaction and relationship quality among Philippine uniformed personnel, reinforcing the importance of institutional backing in shaping relational dynamics. Furthermore, research grounded in the JD-R model highlights that job resources, such as supportive leadership and clear communication channels, enhance both interpersonal cohesion and overall well-being (Lee & Kim, 2023; Scholze, 2024). Collectively, the significant correlations in Table 4 suggest that the favorable work climate experienced by BFP personnel plays a crucial role in fostering intense, supportive, and communicative interpersonal relationship satisfaction across the organization.

Table 4 Significance of the Relationship between Work Climate and Interpersonal Relationship Satisfaction

Work Climate	Interpersonal Relationship			
	Relation with Superiors & Peers	Support from Superiors & Peers	Open communication with peers and superiors	Overall
Work Satisfaction	.405** .000	.394** .000	.324** .000	.407** .000
Productivity / Achievement of Aims	.532** .000	.415** .000	.378** .000	.482** .000
Interpersonal relationships	.580** .000	.475** .000	.483** .000	.560** .000
Performance at work	.560** .000	.394** .000	.428** .000	.504** .000
Overall	.604**	.479**	.468**	.564**

	.000	.000	.000	.000
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Relationship between Occupational Stress and Interpersonal Relationship Satisfaction

Table 5 shows that occupational stress has a significant negative relationship with interpersonal relationship satisfaction among Bureau of Fire Protection personnel. The overall correlation coefficient of -0.286 indicates that higher levels of occupational stress are associated with weaker interpersonal relationship satisfaction across the organization. This means that as occupational stress increases, personnel tend to experience lower support, weaker communication, and less positive interactions with peers and superiors. Among the indicators, the organizational system showed the strongest negative correlation with overall interpersonal relationships ($r = -0.357, p < .000$), suggesting that stress arising from administrative procedures, systems, or policies has the most significant impact on relational dynamics. Meanwhile, job demand showed the weakest, non-significant association ($r = -0.107, p = .060$), indicating that operational workload pressures have a comparatively minor influence on interpersonal interactions. These findings are supported by studies showing that occupational stress undermines communication, trust, and cohesion within emergency service organizations. Elevated stress levels often limit interpersonal openness and reduce personnel's capacity to maintain supportive relationships (Hartwig et al., 2020). Research further indicates that stressors rooted in unfair or unclear organizational systems are particularly damaging because they erode psychological safety and weaken relational bonds in uniformed agencies (Fallon et al., 2023). Consistent with this, Jeung and Chang (2021) found that stress and emotional strain diminish interpersonal engagement among firefighters, especially when organizational support is lacking. Caballero et al. (2024) similarly reported that strong institutional support enhances job satisfaction and relational quality among Philippine uniformed personnel, implying that inadequate support systems may intensify stress and weaken workplace relationships. Moreover, JD-R research shows that high job stress reduces the availability of emotional and social resources necessary for maintaining healthy communication and peer support (Lee & Kim, 2023; Scholze, 2024). Overall, the significant negative correlations suggest that reducing organizational and interpersonal stressors may help strengthen supportive and cooperative relationships within the Bureau of Fire Protection.

Table 5 Significance of the Relationship between Occupational Stress and Interpersonal Relationship Satisfaction

Stress	Interpersonal Relationship			
	Relations with Superiors & Peers	Support from Superiors & Peers	Open communication with peers and superiors	Overall
Physical Environment	-.088 .123	-.189** .001	-.214** .000	-.178** .002
Job Demand	-.068 .230	-.132* .020	-.097 .089	-.107 .060
Insufficient Job Control	-.074 .191	-.146* .010	-.090 .113	-.111 .051
Interpersonal Conflict	-.268** .000	-.254** .000	-.217** .000	-.268** .000

Organizational System	-.332** .000	-.338** .000	-.315** .000	-.357** .000
Lack of Reward	-.290** .000	-.308** .000	-.280** .000	-.318** .000
Occupational Climate	-.273** .000	-.273** .000	-.256** .000	-.291** .000
Overall	-.237** .000	-.289** .000	-.262** .000	-.286** .000

Influence of Work Climate and Occupational Stress on Interpersonal Relationship Satisfaction

Table 6 presents the regression analysis showing the influence of work climate and occupational stress on interpersonal relationship satisfaction among Bureau of Fire Protection personnel. The model yielded an R value of .576, indicating a moderate positive relationship between the combined predictors and interpersonal relationship satisfaction. With an R² of .332, the model explains 33.2% of the variance in interpersonal relationships, suggesting that work climate and occupational stress meaningfully contribute to predicting relational outcomes in the organization. The overall regression model is statistically significant, as indicated by F = 76.482, p < .000, confirming that the predictors collectively influence interpersonal relationship satisfaction.

Table 6 Significance of the Influence of Work Climate and Occupational Stress on Interpersonal Relationship

Interpersonal Relationship		B	β	t	Sig.
(Variables)					
Constant		1.519		4.428	.000
Work Climate		.695	.526	10.739	.000
Stress		-.102	-.122	-2.484	.014
R	.576				
R ²	.332				
ΔR	.327				
F	76.482				
p	.000				

Work climate emerged as the strongest predictor, with a B coefficient of .695, β = .526, and t = 10.739 (p < .000), indicating that improvements in work climate significantly enhance interpersonal relationship satisfaction. This suggests that positive organizational environments characterized by supportive leadership, open communication, and cohesive teamwork directly bolster relational dynamics among personnel. Conversely, occupational stress shows a negative but significant influence, with B = -.102, β = -.122, and t = -2.484 (p = .014). This indicates that increased occupational stress weakens interpersonal relationship satisfaction, although its effect is negligible compared to that of the work climate. The negative coefficient suggests that even moderate levels of occupational stress may reduce communication, trust, and support within the workforce.

These findings are consistent with studies showing that supportive organizational climates enhance teamwork, cooperation, and relational quality in emergency service organizations (Hartwig et al., 2020;

Caballero et al., 2024). Research grounded in the Job Demands–Resources model similarly emphasizes that positive work environments strengthen interpersonal engagement and collective functioning, while stress decreases the availability of emotional and social resources necessary for maintaining healthy relationships (Lee & Kim, 2023; Scholze, 2024). Furthermore, Jeung and Chang (2021) found that emotional strain and stress impair communication and social support among firefighters, reinforcing the negative impact observed in this model. Overall, the regression results highlight that strengthening work climate and reducing occupational stress can significantly improve interpersonal relationship satisfaction within the Bureau of Fire Protection.

Conclusion and Recommendation

Based on the study's results, the following conclusion is drawn: the level of work climate among Bureau of Fire Protection personnel is very high. To further strengthen the already favorable work climate, the Bureau of Fire Protection may establish a “Reflective Practice and Peer Learning Program” where personnel regularly engage in structured reflection sessions after primary operations or drills. In these sessions, small groups of firefighters would discuss not only technical outcomes but also emotional experiences, teamwork dynamics, and personal insights. This practice would allow personnel to process stressful events, share coping strategies, and learn from each other’s perspectives. Unlike traditional debriefings that focus mainly on operational performance, reflective practice emphasizes personal growth, emotional resilience, and collective learning. It can be facilitated through guided questions, storytelling, or peer mentoring circles. Over time, this program could build deeper trust, reduce burnout, and enhance psychological safety factors that are often overlooked but critical in sustaining a strong organizational climate.

Moreover, the level of occupational stress among Bureau of Fire Protection personnel is low. The study found that occupational stress levels among Bureau of Fire Protection (BFP) personnel are low, indicating a favorable organizational environment. To maintain and further strengthen this, it is recommended that the administration introduce an “Innovation and Creative Expression Program” that provides personnel with opportunities to engage in structured creative activities, such as designing fire safety campaigns, developing community education projects, or creating innovative solutions to operational challenges. Unlike traditional stress-reduction programs that focus mainly on wellness or recreation, this initiative would allow personnel to channel their energy into creative problem-solving and community engagement, thereby reducing stress by fostering a sense of accomplishment, ownership, and pride in their contributions. This program could be implemented through periodic workshops, competitions, or collaborative projects. It would not only sustain low-stress levels but also enhance morale, teamwork, and public service innovation within the BFP.

In addition, the level of interpersonal relationship satisfaction among Bureau of Fire Protection personnel is very high. To sustain and further strengthen this relational environment, it is recommended that the BFP continue promoting teamwork-centered activities, open communication practices, and leadership approaches that reinforce trust and cooperation. In addition, the administration may introduce an Interpersonal Skills Exchange Program, where personnel from different stations or units are periodically rotated or paired to share experiences, strategies, and personal insights. This program would not only deepen relationships across the organization but also prevent the formation of isolated groups, broaden perspectives, and enhance unity among all personnel — a practice rarely applied but one that can significantly enrich the already strong interpersonal climate.

Furthermore, the study concludes that the work climate has a strong positive influence on interpersonal relationship satisfaction, while occupational stress has a significant but negative influence on it. To further strengthen relational outcomes, it is recommended that the administration continue to improve the organizational climate and reduce stressors. In addition, the BFP may establish a “Cross-Role Immersion Program” in which personnel temporarily experience or shadow different roles within the organization, for example, administrative staff spending a day with frontline firefighters, or operational personnel observing planning and logistics work. This unique initiative would allow members to better understand the challenges colleagues in different functions face, build empathy, and reduce misunderstandings that often cause stress or conflict. By promoting perspective-taking and shared appreciation of diverse responsibilities, the program can deepen interpersonal trust, strengthen cooperation, and create a more resilient organizational climate.

Lastly, the anchored theories used in this study reinforce and explain the patterns observed in the results. Relational Systems Theory (Gittell, 2011) supports the finding that a strong work climate significantly enhances interpersonal relationships, as high-quality communication, shared goals, and mutual respect are essential for effective coordination in high-risk organizations such as the BFP. The Job Demand–Control–Support Model (Karasek & Theorell, 1990) further clarifies why lower stress levels were associated with better relational outcomes: when personnel experience manageable demands, adequate control, and supportive leadership, stress is reduced, and teamwork improves. Similarly, Social Exchange Theory (Blau, 1964) aligns with the results by demonstrating how fair treatment, reciprocity, and recognition foster cooperative behavior consistent with the high interpersonal relationship ratings reported by BFP personnel. Finally, the Conservation of Resources Theory (Hobfoll, 1989) explains the negative influence of stress on relational functioning, as depleted emotional and psychological resources limit one’s capacity for communication, patience, and collaboration. Collectively, these theoretical perspectives validate the study’s conclusion that enhancing work climate and minimizing stress are essential strategies for improving interpersonal relationships in the BFP, thereby supporting the recommendations for stronger leadership support, communication-rich environments, and organizational stress-reduction initiatives.

References

References within Main Content of the Research Paper

- Enclose the citation number in square brackets, for example: [1].
- Where appropriate, include the names of authors and publication year of the referenced research paper or book, enclosed within round bracket; e.g.: (Rupert Wesley, 2017)
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- If multiple references can be linked with above format then write other author(s) names to distinguish the references.

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