



THE EFFECT OF SAFETY CLIMATE ON SAFETY PERFORMANCE IN PRE-HOSPITAL EMERGENCY HEALTH SERVICES

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INTRODUCTION

Occupational Health and Safety in Pre-hospital Emergency Health Services

- Occupational health and safety (OHS) refer to the protection of workers from the negative effects in the workplace and delivery of a healthy working environment.
- OHS aims to ensure the best harmony between employees and the work and maximize productivity and operational efficiency.
- One of the fields with significant risks in terms of occupational health and safety is healthcare services.

INTRODUCTION

Occupational Health and Safety in Pre-hospital Emergency Health Services

- Healthcare workers who provide emergency care prior to hospital admission are affected more compared to other healthcare workers as they are the ones who initiate medical care in emergencies.
- Ambulance workers and other pre-hospital emergency workers, who spend almost all their working hours in the field, are becoming the most disadvantaged group in terms of occupational health and safety
- Among the risk factors that emergency health services are most exposed to are physical diseases, mental problems, sleep disturbances, communication disorders, psycho-social disorders, traffic accidents, occupational diseases, verbal and physical violence, and exposure to chemical and biological factors.

INTRODUCTION

Safety Climate

- Safety climate refers to the perception of the importance of safety in a workplace or an organization over a specific period.
- These perceptions and beliefs, which can be measured as a value, are shaped by the opinions, actions, attitudes, and values of all employees in the workplace over time and can change with the conditions

INTRODUCTION

Safety Performance

- Workplace safety performance can be defined as “safety compliance” and “safety participation”.
- Safety compliance refers to basic activities, including wearing personal protective equipment, standard operating procedures, and the rules to ensure safety in the workplace, whereas safety participation represents behaviors that do not directly impact employee safety but contribute to the workplace safety environment.
- These actions include employees’ voluntary behaviors, such as joining in workplace safety activities, attending workplace safety meetings, and assisting colleagues with safety issues.

A vertical strip on the left side of the slide showing a detailed view of a classical building's facade, including a dome and ornate architectural elements.

AIM

- Pre-hospital emergency healthcare workers are often the first responders to critical events.
- They have difficulty complying with safety measures as they have limited time to save lives and simultaneously ensure their own safety, as well as that of their colleagues and their patients.
- This study aims to discover the impact of safety climate on the safety performance of pre-hospital emergency healthcare workers.

RESEARCH QUESTIONS

- Does perceived safety climate of pre-hospital emergency healthcare professionals predict their safety performance?
- Do socio-demographic characteristics of pre-hospital emergency healthcare workers affect safety performance and safety climate perception of them?

METHODS

Sample and Universe of the Study

- The universe of this research consists of 778 individuals who were actively working in pre-hospital emergency health services in Diyarbakır city centre during the period of the research. Approximately 60% of the employees completed the questionnaires.
- The data in the research were collected from 70 emergency health services, emergency health administration units and command control centres in Diyarbakır city centre between February 2024 and June 2024.

METHODS

Questionnaire Design

- A three-part questionnaire was administered to the participants.
- In the first part of the survey, a personal introduction form consisting of socio-demographic questions was used, and in the second part, a safety climate perception questionnaire consisting of 21 items and 6 dimensions developed by Lin et al. (2008) and adapted to Turkish by Deveci et al. (2022) was used .
- In the third part of the survey, a safety performance questionnaire consisting of 8 items and 2 dimensions, developed by Neal et al. (2000) and adapted to Turkish by Sakallı et al. (2022), was used. Both scales consist of five-point Likert-type questions.

METHODS

Data Analysis

- In this study, IBM SPSS 30 and IBM AMOS 30 programs were used to perform;
- Path analysis,
- Descriptive statistics,
- Skewness and kurtosis values,
- Cronbach alpha reliability coefficient,
- EFA and CFA analyses.
- One-way ANOVA and Scheffe test, Student's t-test, were used to compare safety climate perception and safety performance scores for all socio-demographic groups.
- For all analyses, a p-level of <0.05 was considered significant.

FINDINGS

Findings Regarding Socio-demographic Characteristics

- Dependent t-tests and ANOVA tests showed that the mean scores for safety climate, safety performance, safety participation and safety compliance showed no significant difference between male and female participants.
- Older employees had a higher perception of the safety climate in the workplace.
- Safety climate perceptions was significantly different according to the working hours of the employees.

FINDINGS

Findings Regarding Socio-demographic Characteristics

- Participants working 24-hour shifts reported lower mean safety climate scores.
- Education, marital status and work experience had no role in safety climate and safety performance.
- Respondents from higher and lower income groups had higher safety participation than those from middle income groups .

FINDINGS

- Anova tests showed that higher safety climate perceptions and safety compliance scores were determined in pre-hospital emergency healthcare groups that had no occupational accidents in the last two years.
- Similarly, safety climate perception and safety performance scores were higher in participants who had no occupational illnesses in the last two years.
- Workers who had not experienced verbal, physical or psychological violence had higher safety climate perceptions and safety performance scores .

FINDINGS

- The results of this study showed that the most common occupational accidents suffered by workers were needlestick injuries, shaking in ambulances, carrying patients and injuries caused by cutting/piercing.
- When participants were asked if they had suffered from a work-related disease in the last two years, herniated discs, insomnia, depression and anxiety were determined as the most common occupational diseases among workers.

FINDINGS

- This study reveals a significant positive effect of awareness and competence, safety training and safety communication on employee safety compliance.
- There is a significant positive effect of awareness and competence, safety communication and safety training on employee participation in safety.
- Another important finding of this study is the significant negative effect of the organisational environment ($\beta = -0.150$, $p < 0.05$) on workers' safety participation.

CONCLUSION

- The results of the study showed that the majority of the participants had been subjected to violence, had an occupational accident, and an occupational disease. These findings revealed that pre-hospital emergency health services are among the most dangerous professions.
- The workplaces of pre-hospital emergency healthcare workers can range from a traffic accident or fire to a collapsed building during an earthquake, environments impacted by pandemics, sites of explosions, or a flooded place.

CONCLUSION

- These findings suggest that more precautions should be taken against workplace risks and more training should be provided for employees.
- The study showed that the duration and variety of personnel training should be enhanced.

CONCLUSION

- The use of protective equipment and adherence to proper handling rules are also among the most crucial factors to be addressed during training. The employees should be trained and encouraged to use the protective equipment more.
- The participants also reported frequently experiencing disorders such as insomnia and anxiety. Psychological support for pre-hospital emergency health service workers, who are exposed to various traumatic events and people due to the nature of their work, can also help improve their mental health.

CONCLUSION

- Pre-hospital healthcare employees working in 24-hour shifts suffer from sleep deprivation and other reasons, making them more vulnerable to dangers. The workload of this group, who do not have sleeping and eating patterns, should be reduced.
- The participants stated that adverse conditions stemming from the organizational environment reduce safety performance. Therefore, the main finding of this study is that organizational environment should be improved.

CONCLUSION

- The study results indicated that increasing the safety climate in the workplace has a direct effect on the safe behavior of employees.
- Both managers and employees must contribute to increasing the safety climate in the workplace, whether in stations, ambulances, or at the scene.
- The Ministry of Health and other official institutions should work on enacting new laws and regulations to ensure occupational health and safety practices in pre-hospital emergency health services.



THANK YOU

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