



ASSESS THE JOB-RELATED STRESS AMONG FIREFIGHTERS IN DEPARTMENT OF FIRE STATION

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Abstract : Firefighters play a crucial role in ensuring public safety by responding to emergencies such as fires, accidents, and natural disasters. Despite their vital role in society, limited research has been conducted in the Indian context, particularly in Kerala, to explore the stress levels among these frontline workers. Constant exposure to high-risk situations, irregular work schedules, and the emotional toll of witnessing traumatic events contribute significantly to their stress. This study aims to assess job-related stress among firefighters in the Thrissur district. **Objectives:** To assess the Job-related stress among firefighters in department of fire station and to find the association between Job related stress among firefighters with selected socio - demographic variables. **Materials and Methods:** A descriptive study was conducted among 30 firefighters in a fire station, selected using a purposive sampling technique. The instruments for data collection included a socio-demographic proforma and a structured stress scale. Descriptive and inferential statistics were used for data analysis. **Result:** The study revealed that the majority of firefighters were in the age group of 33–46 years. About 80% of them were married. Most of the participants had between 1 and 18 years of service. Seventy percent of the firefighters were degree-level qualified. The level of stress among firefighters indicated that 70% of the sample experienced moderate stress. The results of the study showed no significant relationship between stress and socio- demographic variables

IndexTerms - Job related stress; Firefighters.

I.INTRODUCTION

Firefighters are trained professionals dedicated to protecting life, property, and the environment by responding to fires and various emergencies. Their primary responsibilities include fire suppression, rescue

operations, emergency medical services, hazardous materials response, and fire prevention and education. In addition to active emergency response, firefighters also participate in training exercises, equipment maintenance, and community outreach programs. Their work environment is dynamic and physically demanding, often requiring high levels of fitness, mental alertness, and the ability to remain calm under extreme pressure. Due to their critical and visible role in society, they are held in high regard and are often portrayed as everyday heroes in both real life and media. Studies have shown that a high level of community respect contributes positively to firefighters' sense of identity and purpose¹.

Statement of the problem : A study to assess Job related stress among firefighters in the department of fire station at Thrissur district.

Objectives : To assess the Job-related stress among firefighters in department of fire station. & To find the association between Job related stress among firefighters with selected sociodemographic variables.

Need for the study

Firefighting involves long hours, rotating shifts, irregular sleep, and frequent exposure to traumatic events, leading to fatigue, anxiety, depression, burnout, and PTSD². A study by Soteriades et al. (2022) reported that 11% of firefighters experienced moderate to extremely severe stress, which may negatively affect their concentration, decision-making abilities, and team coordination³. This study was undertaken to assess job-related stress and emphasize the need for psychological support, preventive measures, and policy interventions to protect their health and performance.

Hypothesis

There will be significant association between Job related stress among firefighters with selected socio demographic variables.

RESEARCH METHODOLOGY

Research approach : Quantitative approach

Research Design : A descriptive design is used in the present study

Setting : The present study was conducted in department of fire station in Thrissur District

Population : Fire Fighters in the department of fire station

Sample and Sampling Techniques : purposive sampling technique and sample size is 30 firefighters

The tools and techniques for data collection

- ✧ Sociodemographic Performa
- ✧ Structured Stress Scale

Validity and Reliability

Content validity of tools and intervention were ascertained by obtaining expert opinion from 3 experts who are working in the field of psychiatric nursing. Based on the opinion from the subject expert, content validity index of each item and for the total instrument were calculated. The reliability of the structured stress scale was calculated Test Retest Method and obtained reliability co-efficient was 0.9.

RESULTS

Section 1: Description of demographic variables Half of the participants (50%) were aged 33–46 years, 36.6% were 18–32 years, and 13.3% were 47–60 years. All were male; most were married (83.3%), had 1–10 years of service (56.6%), held junior-level positions (63.3%), and were degree holders (70%). All worked 24-hour shifts and reported good health.

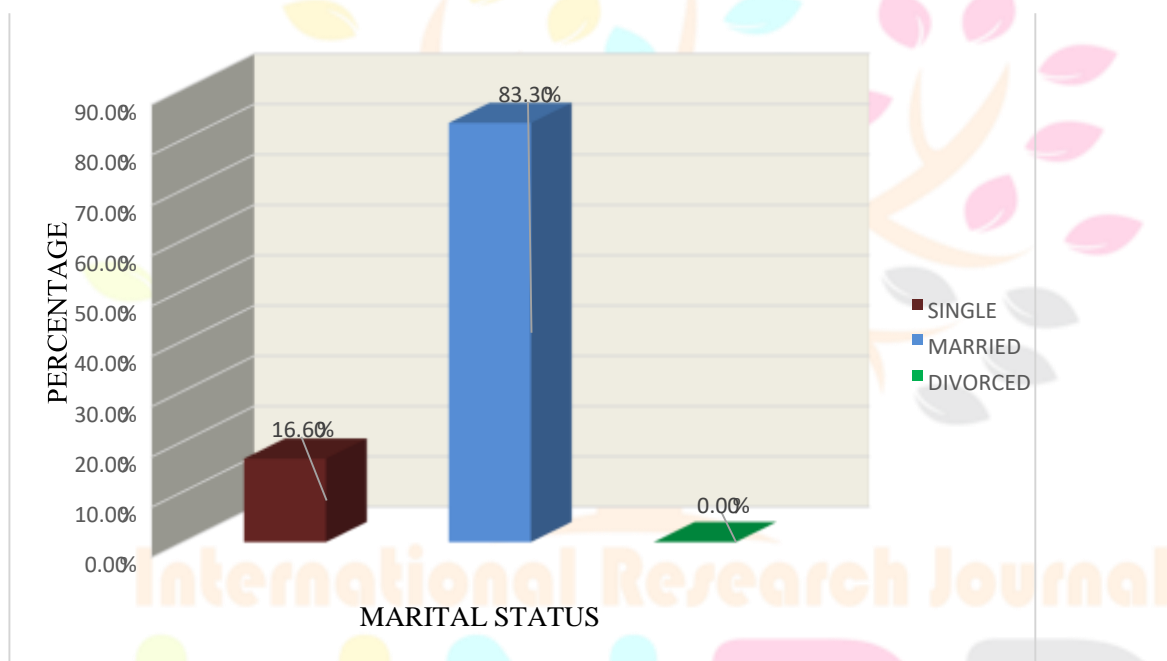


Figure 1 .Frequency and percentage distribution of firefighters according to marital status

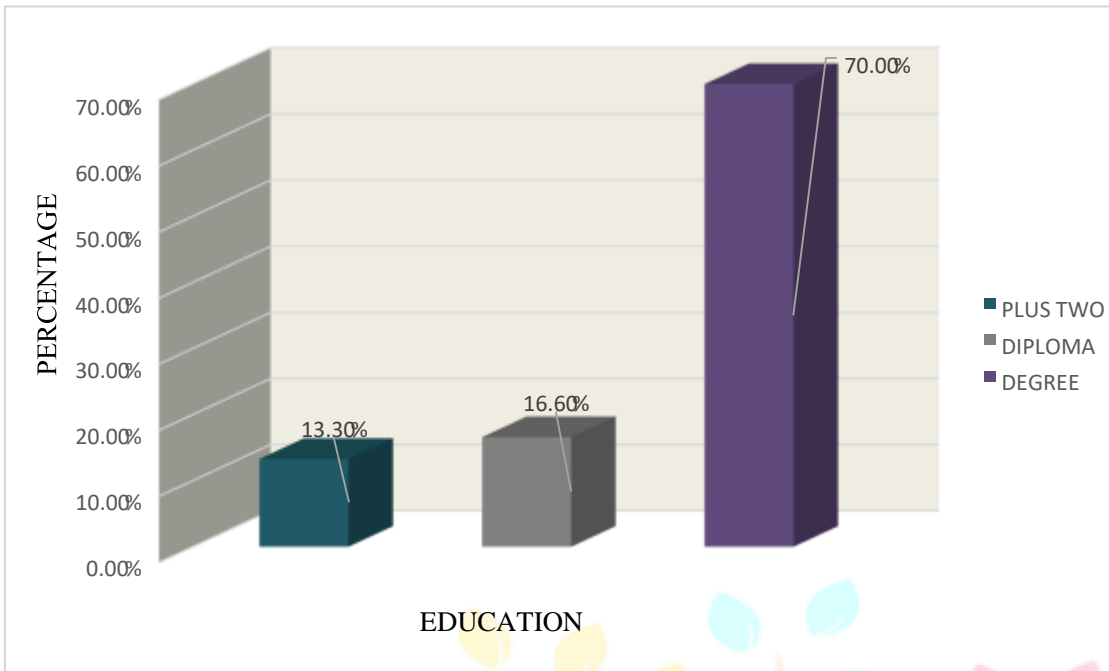


Figure 2. Frequency and percentage distribution of firefighters according to level of Education

Section 2: the distribution of fire fighters based on their job related stress

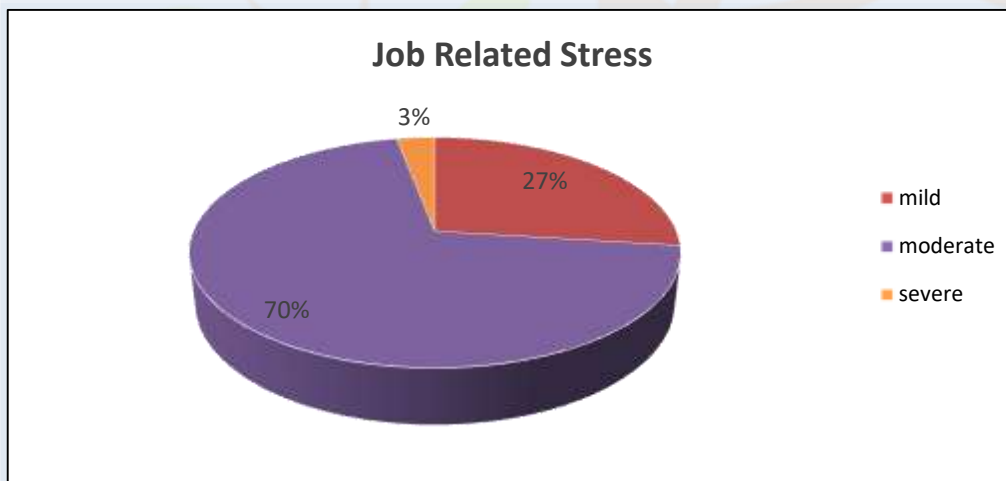


Figure 3- distribution of the fire fighters based on their job related stress

The pie diagram shows the level of stress among firefighters. The results reveal that 70% of the samples had moderate stress, 26.6% had mild stress, and 3.3% had severe stress.

Section 3: Association with Demographic Variables

Chi-square analysis showed no significant association between stress and variables such as age, marital status, years of service, rank, or education ($p > 0.05$). Thus, the hypothesis was rejected, indicating that stress is more likely influenced by occupational or psychological factors than demographics.

DISCUSSION

The study revealed that most firefighters experienced moderate stress, which was not significantly related to demographic variables. This supports findings by Kaur et al. (2020), who also found no demographic link, but contrasts with Smith et al. (2018) and Sharma & Gupta (2019), who reported associations with years of service and rank. Other literature emphasizes occupational and psychological stressors—such as workload, trauma exposure, and lack of rest—as key determinants.

CONCLUSION

Firefighters in Thrissur district predominantly experience moderate stress, with no significant association to demographic characteristics. The findings underscore the need for organizational wellness programs, nursing interventions, and stress management initiatives to protect their mental health.

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