

RESEARCH ARTICLE

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EVALUATION OF THE STRESS IN THE FIREFIGHTERS OF THE URBAN COMMUNITY OF ANTANANARIVO

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ABSTRACT

Introduction: Firefighter stress is a specific work stress due to the urgency and the need for performance in the trade. The objective of our study is to evaluate stress among firefighters to determine stressors in firefighters and study their response to stress. **Methodology:** This is a descriptive, cross-sectional, and monocentric study in the Antananarivo Urban Community Fire Station in Tsaralàlana for a period of 35 days. **Results:** A total of 36 firefighters were selected, with an average age of 35.41% in a predominantly male population. The most represented case was case # 3 with a highstressor score and a low stress score of 72%. Regarding stress, our study found that perfectionism is the main cause of stress found in firefighters with a rate of 72.20% with stressors like overwork in 55.50% of cases. **Conclusion:** The profession of firefighter is a high-risk occupation with several sources of stress, the consequences of which are numerous somatic and psychological.

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INTRODUCTION

Firefighter stress is a specific job stress due to the urgency and need for performance in the business (Lavillunière and al. 2009). In effect, the job of firefighter is a job at high risk with several sources of stress (Forum-Pompier 2004). Three phases can be observed, the pre-operational phase characterized by waiting and manifested by nervousness, anxiety, fear of confrontation with suffering and death. Then there is the operational phase characterized by the alert requiring physical, temporal, and mentality but also a mastery of emotions to diminish the effects of stress and to avoid the loss of the ability to manage the stress resulting in a state of extreme exhaustion.

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This may be accompanied by somatic symptoms such as heart disorders, ulcers, high blood pressure etc... Finally, the post-operational phase characterized by the depletion during which social sharing and decompression have a primary role to avoid the occurrence of disorders resulting from the effects of stress and can persist such as tremors, insomnia etc ... Several factors are related to the appearance of stress (Genoud et al. 2009) including physical factors such as overwork, somatic diseases, hunger, noise, intense light, as well as cold and heat ... there are also biological factors through excessive consumption of psychoactive substances such as tobacco, unbalanced diet, deficiency or excess of vitamins. Then there are also the cognitive factors that lead to fear, boredom, frustration, worry and disturbance of the usual benchmarks. The objective of our study is to evaluate stress among firefighters to determine stressors in firefighters.

MATERIALS AND METHODS

We conducted a cross-sectional, single-center descriptive study within the fire department of the Urban Commune of Antananarivo located in Tsaralàlana during a period of one and a half months. The variables studied were the age as well as the parameters of the CUNGI scales including 11 items for stress and 8 items for stressors.

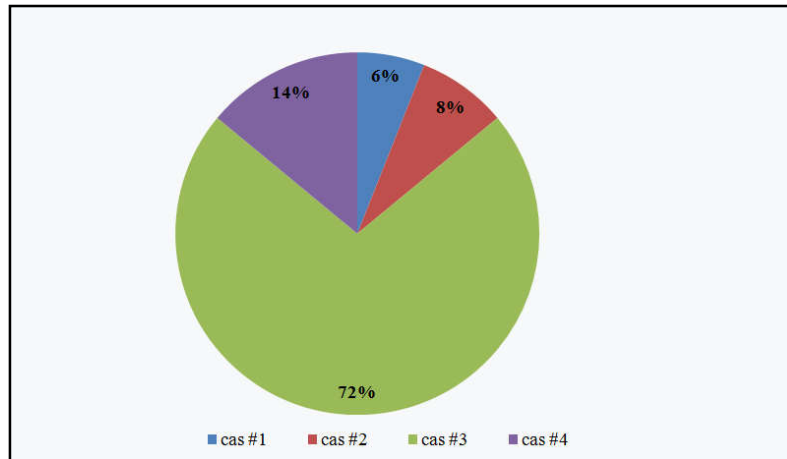


Figure 1. Distribution of the population according to stress and stressors

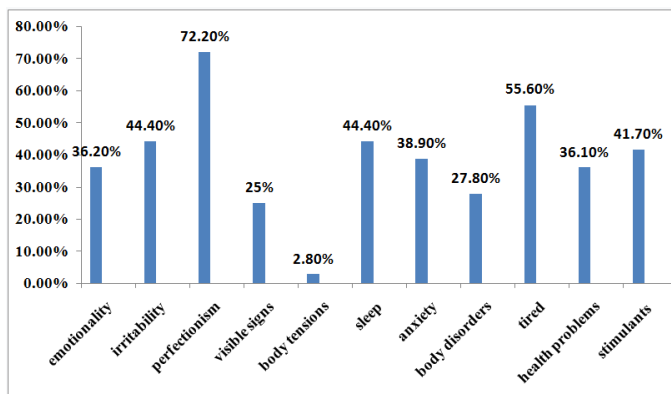


Figure 2. Distribution of the population according to stress parameters

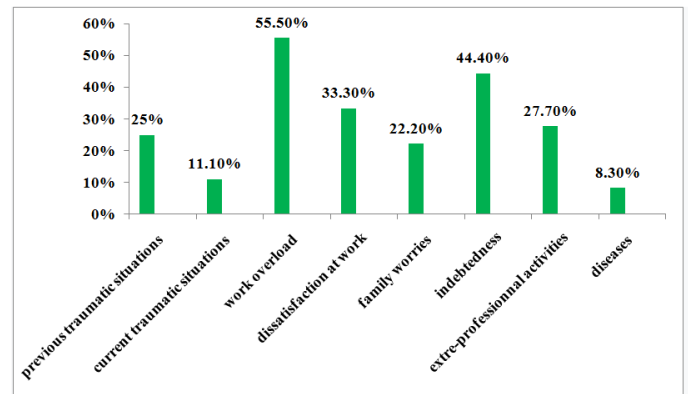


Figure 3. Distribution of the population according to stressors

This is an easy-to-complete ladder where the subject evaluates the importance of each of the items according to him with a rating ranging from 1, very little impact to 6, extremely important impact to obtain 4 cases, the case # 1 with a high stressors score and a high stress score, # 2 with a low stressors score and a low stress score, # 3 high stressors score and stress score, and finally case # 4 low stressors score and high stress score. The data was analyzed using the Excel 2013 software.

RESULTS

We have retained a total of 36 firefighters. The average age was 35.41 years with extremes of 22 and 57 years, in an exclusively male population. In our study, the most represented case was case # 3 with a high stressors score and a low stress score of 72% followed by case # 4 with a low stressors score and a high stress score of 14% (Figure 1). Regarding stress, our study found that perfectionism is the main cause of stress found in firefighters with 72.20% rate followed by fatigue with a rate of 55.6% (Figure 2). In addition, the majority of the agents qualified as stressors were

represented by the workload in 55.50% of the cases followed by the indebtedness with rate of 44.4% (Figure 3).

DISCUSSION

In our study, the average age of firefighters was 35.41 years with extreme of 22 and 57 years. This result coincides with that reported in France with an average age of 39 years

(Lehmann 2013). Indeed, the job of firefighters is a job performed by a young population. In our study, the most represented case was case # 3 with a high stressors score and a low stress score of 72% (Figure 1). In a study on stress among employees in France, it was found that 1.8% of its study population had a high stressors score and low stress score (Cazale B 2007). This result assumes that the stress management is satisfactory among Antananarivo firefighters. Indeed, stress management is essential to face difficult situations and constraints related to the job (Cungi *et al.* 1997). However, our study revealed that perfectionism was the main cause of stress found in firefighters with 72.20% rate (Figure 2) and the majority of agents qualified as stressors is represented by the work overload in 55.50 % of cases (Figure 3). This result is similar to that found in France, noting that the main stressor is perfectionism in 58% of cases among employees and that the stressor most represented was the workload or 46% (Cazale B 2007). Thus, the job of firefighters requires perfectionism. Stress factors influence the stress level of employees and firefighters. In total, many factors can promote the emergence of stress in firefighters. Prevention and stress management are essential to ensure the best job and avoid coping.

Conclusion

The job of firefighter is a high-risk job with several sources of stress, the consequences of which are numerous somatic and psychological, sometimes serious. Individual preparation for stress is essential in order to foster the acquisition of more appropriate attitudes as well as reinforcement of prevention and adequate learning of self-management techniques. A collaboration between firefighters and psychologists as well as psychiatrists should be promoted to reduce the appearance of psychological disorders.

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