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Work Stress and Burnout for Greek Army Staff: The Job Satisfaction and Quality of life Measurements

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Abstract:
The military environment has unique stressors. This study examines the relationship among job stress, quality of life, job satisfaction, job burnout. Additionally, it attempts to identify the main occupational stressors and to detect possible correlations with gender, age group and origin (Officers and NCOs).
The sample size of the study was 84 personnel who work or have worked in the armed forces. The empirical material was collected online using a questionnaire comprising a scale of 123 questions. In addition to the demographic data, the questions were structured in such a way that they led us to identify occupational stressors and draw conclusions about the level of perceived job stress.
Professional military personnel showed high satisfaction with their quality of life. Respondents with higher levels of stress reported lower perceptions of their quality of life. The degree of work stress experienced by uniformed personnel is a function of specific work factors and demographic characteristics. The data presented suggest that work stress may pose a significant structural threat to the organization itself, because it affects not only the mental and physical health of its personnel, but also negatively affects the very ability to fulfil the mission of the troops.

***Keywords:**: Work stress, job satisfaction, work burnout, quality of life*

Introduction

The term "stress" predates its systematic or scientific use. It was used as early as the 14th century to mean hardship, deprivation, adversity or sorrow (Lazarus and Folkman, 1984). The concepts of stress and strain survived into 19th century medicine and were seen as the basis of ill health. The term "stress" as used today was coined by Hans Selye in 1936, who defined it as "the non-specific reaction of the organism to any demand for change". Stress is one of the few words you will see preserved in English, in languages that do not use the Latin alphabet (Marksberry, 2023). Today the conceptualization of stress still remains highly problematic for scientists because it is such a subjective phenomenon that it cannot be defined. We will therefore define stress as an adaptive reaction, determined by individual differences, as a consequence of any action, situation or event that places special demands on an individual (Ivancevich et al., 2014, p. 232), which usually manifests itself when the this person perceives that the demands exceed the personal and social resources that he or she can mobilize ("The American Institute of Stress," 2023).
Nowadays, the workplace is one of the main sources of chronic stress. It is recognized worldwide as an important challenge both for the health of employees and for the health of the organization in which they are part. For example, 440,000 people in the United Kingdom (UK) complain of occupational stress, depression or anxiety with direct effects on their health (Bhui et al., 2016).
The experience of occupational stress depends in part on the individual's ability to cope with the demands of his job, as well as how he subsequently copes with these demands and is related to issues of control and support (Cox et al. , 2000, p. 12).
In other words, it is a state of imbalance of the employee between the demands he must satisfy and the resources he has available to cope with them. It could be considered as the reaction that a person exhibits when he is under pressure in his workplace for a certain period of time. It certainly has a subjective form as the same data is a source of stress for some and not for others, while it depends on the individual's personality in combination with a mixture of biological, psychological and social parameters.
In some occupations, levels of occupational stress are at elevated levels and these are mainly occupations in which the employee develops relationships with people, whether he is called upon to make rapid decisions, or occupations of a special nature, such as those that concern the health sector, or the armed forces (Antoniou, 2006). In the United States of America (US), for example, it has been reported that military personnel are significantly more likely to report experiencing work-related stress than the general working

population (Pflanz and Sonnek, 2002). Recent research by the UK's Health and Safety Executive (HSE) published in March 2022 found that on average, stress, depression or anxiety was more prevalent first in the public administration and defense sector and then in the health and education sector ("Work-related stress, anxiety or depression statistics in Great Britain," 2022).
The present study evaluates the relationship, intensity and direction of perceived work stress in the military personnel of the Greek armed forces with a series of variables such as quality of life, job satisfaction and burnout at work and proceeds to investigate various correlations of this with gender, the age group and the origin (Axkoi / Ypxkoi).
The article structure is structured in three sections as follows: in the first section, a literature review is presented, which identifies the issues and factors affecting work stress and outlines the current situation in the armed forces of our country. The second section focuses on the methodology followed and the third section on the results of the primary field research. Finally, an extensive report and analysis of the results of the research is made and the conclusions, limitations and implications are presented as well as suggestions for further research.

Literature review

Job satisfaction or dissatisfaction is the result of the relationship between the expectations that people have for their work and the actual experiences from it. Some people enjoy their work, while others experience discomfort in the workplace, resulting in strong dissatisfaction. Job satisfaction is a phenomenon that goes beyond the boundaries of the organization or company, and its effects are observed outside of it, that is, in the individual's private life.
Up to 99% of studies on work stress and job satisfaction confirm the existence of the relationship between them and consider that work stress has a negative effect on job satisfaction (Singh et al., 2019). Job satisfaction, according to many experts, is one of the most demanding organizational concepts and the basis of many management policies to increase the productivity and efficiency of each organization (Singh et al., 2019). They are the two main focus points in human resource management research (Bhatti et al., 2011).
In the present research, we would like to examine to what extent there is an interaction between job stress and job satisfaction among permanent personnel of the Greek armed forces. Therefore, research hypothesis H1 is formulated which suggests that there is a relationship between job stress and job satisfaction.
Burnout was initially a very confusing concept, with no consensus on its standard definition. Subsequent research on this topic has led to the development of a multidimensional interpretation and now the concept of burnout is defined as a state of physical, emotional and mental exhaustion resulting from long-term involvement in work conditions that are emotionally demanding (Schaufeli and Greenglass, 2007). According to Maslach (1982), burnout consists of three dimensions: emotional exhaustion, depersonalization (perceived distance from others) and reduced personal fulfillment (Lee and Ashforth, 1996).
Another very important observation, contained in this conceptualization of burnout, concerns work involvement and tends to be a particular problem for people whose work requires extensive contact with and/or responsibility for other people (Ivancevich et al. , 2014, p. 244). It would be extremely interesting in this research to establish the degree of burnout of the executives of the Greek armed forces and the chance relationship of the latter with job satisfaction. Therefore, research hypothesis H2 is formulated which suggests that there is a relationship between job burnout and job satisfaction.
Although there is no commonly accepted definition of quality of life, there is considerable agreement among researchers about some of its characteristics. The first is the growing recognition that quality of life is subjective. A second area of consensus is the multidimensional nature of quality of life. Third, quality of life includes both positive (eg, role functioning, satisfaction, and mobility) and negative dimensions (eg, negative emotions, drug dependence, fatigue, pain).
The World Health Organization defines it as "individuals' perception of their attitude to life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". It is a broad concept, which incorporates in a complex way physical health, psychological state, level of independence, social relationships, personal beliefs and relationships of individuals with important features of the environment. This definition emphasizes the view that quality of life is subjective, includes both positive and negative aspects of life, and is multidimensional (The World Health Organization, 1995).
Too much research has highlighted the negative relationship between stress and quality of life, through the deterioration of various aspects related to physical and mental health. It is also pointed out that, factors such as burnout, sleep disorders and depression, can maximize this negative correlation, further worsening the quality of life (Ribeiro et al., 2018). The following research hypothesis is therefore formulated which proposes that the perceived quality of life is affected by work stress (H3).

Below in figure 1 is presented the representation of the hypotheses in a diagram.

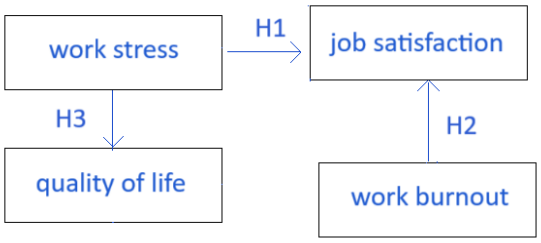
Methodology

The sample size (n) of the study consisted of 84 officers (68 Officers up to the rank of Brigadier General and 16 Non-Commissioned Officers of which 8 were female personnel), without current mental health problems, who work or have worked in the armed forces. The collection of the empirical material was carried out online using a questionnaire that included a scale of 123 questions in total. In addition to the demographic data, the questions were structured in such a way as to lead us to the detection of occupational stressors and to conclusions about the level of perceived occupational stress.

The questionnaire was designed after a review of the relevant literature. For the purposes of this study, the questionnaire was structured in seven sections as below:

Record major stressors. The reliability (reliability statistics) of the individual questionnaire of this section was measured with Cronbach's Alpha test and was found to be 0.90. It includes the self-assessment of a total of thirty-one (31) stressors, measurable on a five-point scale ranging from 0 = not at all important to 5 = very important.

Figure 1 Hypotheses testing scenario



Measuring the perceived work stress of permanent military personnel. The Beck Anxiety Inventory (BAI) was used, which includes a list of common symptoms of stress, the completion of which leads to a self-reported measurement of it. The BAI assesses the affective, physiological, and cognitive aspects of stress. It consists of 21 items, which are rated on a four-point scale ranging from 0 = not at all to 3 = severely. Categorical stress levels consist of low stress level (0-21 points), moderate level (22-35) and potentially alarming stress level (36-63). The reliability statistics of the questionnaire section was measured with Cronbach's Alpha test and found = 0.93.

Measuring the perceived quality of life of permanent military personnel. The World Health Organization's short quality of life assessment tool (WHOQOL-BREF), which is an abbreviated version of the 26-question five-point scale of the 100-item quality of life measure of the WHOQOL-100, was used. To provide a broad and comprehensive assessment, one item from each of the 24 aspects contained in the WHOQOL-100 has been included. Domain scores were scaled in the positive direction (higher scores indicate better quality of life), with a score range of 4–20 converted to a 0–100 scale according to the procedure defined in the World Health Organization Abbreviated Instrument for Quality of Life user manual Assessment. The two items on the overall quality of life and the general manifestation of health are rated from 1 (very bad or very dissatisfied respectively) to 5 (very good or very satisfied respectively). The reliability (reliability statistics) of the specific section was measured with Cronbach's Alpha test and found = 0.87.

Measuring burnout. The Maslach Burnout Inventory (MBI) was used in order to determine the degree of burnout by exploring the elements of burnout, depersonalization or loss of empathy, and assessment of personal accomplishments. It consists of 22 questions, which are graded on a seven-point scale. A value of 0 is given if the respondent never experiences the emotion described. The frequency scale ranges from 1 (at least a few times a year) to 6 (every day). Categorical burnout levels consist of low burnout (up to 17 points), moderate burnout (18 to 29), and high burnout (30 and above). Categorical levels of depersonalization consist of low level of burnout (up to 5 points), moderate level (6 to 11) and high level of burnout (12 and above). Finally, regarding the perception of personal achievements, they range from a low level of burnout (40 and more points), a moderate level (34 to 39) and a high level of burnout (33 and less). A high score on the first two sections and a low score on the last section may indicate burnout. The reliability statistics of the specific questionnaire was measured with Cronbach's Alpha test and found: domain of professional exhaustion = 0.92, domain of depersonalization / loss of empathy = 0.88, domain of evaluation of personal achievements = 0.86.

The measurement of job satisfaction was structured based on the six (6) main factors that advocate job satisfaction, which are the satisfactory salary, the scope of work, the conditions of the work environment, the

clear organizational chart, the relationships between colleagues and the perspective in future. It includes the self-assessment of these six factors, with answers distributed on a five-point scale ranging from 1 = do not agree at all to 5 = agree very much. The reliability (reliability statistics) of the individual questionnaire of this section was measured with Cronbach's Alpha test and found = 0.71.

Results

Investigation of the relationship between work stress and work satisfaction (H1)

The descriptive statistics of the six (6) factors that make up job satisfaction are shown in the table below. In addition, a new structural variable is included (Cronbach's Alpha = 0.71) of the total sum of the individual factors (satisfactory salary, interesting work subject, good working conditions/environment, clear organizational chart, good colleagues relations, professional development perspective). In order to better understand the degree to which work stress affects the satisfaction we receive from our work, we performed the statistical bivariate correlation test between the structural variables that make up the total of perceived work stress, with the total degree of perceived job satisfaction. The result shows that there is a correlation (p-value 0.029) with a negative direction and a patient in intensity (ρ=-0.238)

Investigation of the relationship between work stress and work satisfaction (H2)

The Maslach Burnout Inventory (MBI) was used to determine the degree of burnout by exploring the elements of burnout, depersonalization or loss of empathy, and assessment of personal accomplishments. A high score on the first two sections and a low score on the last section may indicate burnout. Correlations were also found between the components of work burnout and job satisfaction (p-value <0.001) with a negative direction in the first two components (evaluation of professional burnout ρ=-0.459 and depersonalization/loss of empathy ρ=-0.283) and a positive direction in the third (evaluation of personal achievements p=0.351). Finally, in the overall degree of perception of work stress with the perceived quality of life, confirmation of H2 was observed (p-value <0.01, ρ=-0.333).

Investigation of the relationship between work stress and quality of life (H3)

By testing the Pearson Correlation, which measures the strength of the linear relationship between two variables, we tried to identify the existence or not of a correlation between the overall degree of perceived work stress and the also perceived quality of life as measured in the domains of the WHOQOL-BREF . The result shows that there is a negative correlation of moderate strength (p-value <0.01, ρ=-0.333). Therefore, H3 is confirmed.

From the additional tests chi-square(X^2) and one-way ANOVA we observe a clear dependence (Levene statistic Sig=0.309>0.05 and sig=0.038<0.05) of gender with the total score obtained from the BAI questionnaire. The relationship is characterized as weak (Kendall'stau-c value = 0.12<0.3), but we notice from the averages that female staff appear more stressed. An issue of interest for further examination and discussion is whether the increased experience of stress in women is due to differences in the way each gender perceives or copes with stressful situations, or to women's greater willingness to report stress symptoms or even and in their greater exposure to stressful events or chronic stressors than men. Although women in the military environment face the same professional duties as men, we must take into account that they also have additional obligations in the social sector, mainly as wives, which may affect their lives to a greater extent.

In the present study, NCOs did not show a significant difference in stress levels compared to Officers. Although it was expected to find that executives with a higher rank, and thus with more responsibilities and obligations, would be more vulnerable to the effects of stressors, this was not verified. On the contrary, a positive correlation was found (Levene statistic Sig=0.377>0.05 and sig=0.024<0.05) with years of service and with age. More specifically, it was found that with increasing age or years of service, stress also decreases, which contradicts a relatively recent study (Vojvodić and Dedić, 2019) of the Serbian Armed Forces, which concludes that stress levels measured with the BAI questionnaire, were significantly higher in older respondents, since older age groups have worn down over time. It is therefore evident that in the Greek armed forces the stress regulation variables that we analyzed in the stress mechanism, among which are experience and education, with increasing age function as stress mitigators and have a positive effect. This result agrees with other studies. For example in a survey of Nigerian military personnel, it was found that lower ranking military officers exhibited more stress than their senior colleagues (Udeh et al., 2022). In addition, we have to take into account that with the increase in the years of service, there are grade and salary increases, which appears to have a positive effect in turn.

Among the four WHOQOL-BREF domains, the highest mean satisfaction score was found for domain 3 (social relationships 81.25%), indicating good interpersonal relationships. The social domain assesses issues related to personal relationships, sexual activity, practical social support, and feelings of respect and

acceptance. This observation is of extreme importance in the peacetime military environment and is even more important in wartime. So it seems that each member is in an interactive relationship, that is, it interacts with other members. The cohesion and effectiveness of the military unit depends on the quality of interpersonal relationships.

Conclusions

Recent studies in the armed forces of other countries have identified high levels of occupational stress in their military personnel. The present study examined the relationship between work stress, quality of life, job satisfaction and performance, work burnout as well as the types of stressful stimuli. The findings support the data so far showing that this close correlation of work stress with the aforementioned variables is also evident within the Greek armed forces. Targeting and eliminating the sources of work stress should be a priority for the Greek army, in order, on the one hand, to protect the mental health of the officers and, on the other hand, to protect the organization itself from the inefficiency and reduced productivity of its personnel. Managerial implications and possible interpretations arising from these important findings are listed below.

The work stress mechanism developed in the theoretical part of the study has full application in the environment of the Greek armed forces. Any adaptations of this model are due to the peculiarity of the space, which, on the one hand, produces additional potential stressors, while on the other hand, with the appropriate interventions, it provides the possibility of mitigating the negative effects, mainly through training and motivational skills of its leaders, regardless of scale. Social support from superiors and colleagues is a critical factor in limiting negative effects and increasing the physical and mental health of military personnel.

A significant percentage (20.3%) of executives reported experiencing moderate to high work stress. Job stress was negatively associated with all job performance parameters measured, as well as with job satisfaction and perceived quality of life. If the causes that create stressful situations are not adequately addressed, we will be fatally led to a deterioration of physical and mental health, interpersonal relationships and work performance. Early detection and targeted interventions are key to more effective and efficient symptom management, improve service member productivity and efficiency, and could help mitigate long-term negative health outcomes.

Special emphasis should be given to the preparation and execution of an evaluation program. At this point, the management system organized and developed by the administration (intervention, change and action programs) will be evaluated and the support networks used will be re-evaluated. Evaluation is necessary to determine whether the intervention is producing the desired results, if additional changes are needed and in what direction. Consequences across all symptom categories, i.e. organic, cognitive/psychological and behavioral symptoms, as well as organizational implications are considered and an operational evaluation model is constructed with axes per symptom category and measurable effects on each axis. In addition, it is necessary to establish specific time frames. Interventions, concerning organizational changes, must be evaluated in a more medium and long-term horizon, in contrast to those concerning prevention, which will be evaluated at more regular intervals. The image below presents an indicative model of evaluating the results achieved, after our actions, to deal with stressful stimuli.

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