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**THE INFLUENCE OF OCCUPATIONAL STRESS
ON THE EMPLOYEES: A CASE STUDY OF A
MACEDONIAN COMPANY**

Abstract

Occupational stress is increasing worldwide in all organizations, professions, employees, employers, families and the society. The goal of this research is to investigate the individual's differences in the perception of occupational stress among employees in relation to their individual differences such as age, gender, marital status, parenthood, number of children, hierarchical level, department, and working hours with a special focus on employees in a large private company in Macedonia, as well as to investigate the levels of perceived stress among the employees in different departments within the company. It also includes an elaboration of a concept of occupational stress emphasizing differences and similarities in academic understanding of the term occupational stress. The results suggests that the

greatest level of stress is experienced in the first group of ages or the employees who are between 30 and 39 years old, who work more than 9 hours per day, who are parents of one child and those employed in technical area, at lower department levels. The study also highlights the practical implications based on the results and enables a better understanding of the demographic and work factors that lead to occupational stress.

Keywords: occupational stress, sources of occupational stress, individual differences, employee

INTRODUCTION

In a broader sense, the term occupational stress refers to one of the major health hazards of the modern workplace. Occupational or job stress may be defined as a “mechanism whereby the human body attempts to adapt to the environment.” It can be considered as the harmful physical and emotional responses that occur when the requirements of the job do not match the resources, capabilities and needs of the worker (Nakasis&Ouzouni, 2008). The International Labor Organization (ILO) asserts that all countries, professions and all categories of workers, families and societies are affected by occupational stress (Ogon, 2001). Additionally, research has demonstrated that as workload and work-associated stress increase, turnover rates of workers are also noted to increase. Thus, occupational stress results in considerable costs to organizations in terms of absenteeism, loss of productivity, and health care resources.

The consequences of occupational stress are considered to have a great impact on the cost side of the balance sheet of every contemporary organization, hence cost has been acknowledged as an issue around the world. It represents a common concern in both emerging and industrialized economies (Tsutsumi& Kawakami, 2004). Some of the studies were directed towards expressing and quantifying the cost of work related stress that affects economies, over the Gross Domestic Product (GDP). In particular, in the EU 5-10% of the GDP (Cooper *et al.*, 1996), while in Denmark occupational stress caused cost as a result of absenteeism and sick leaves of 2.5% of the GDP, and in Norway 10% of the GDP. In the USA it has been estimated that 54% of absences are due to stress. Absence because of sick leaves costs the UK 12 billion pounds, out of which 50% has been considered to be stress-related (Cooper, 1998). It must be stated that such calculation does not include the additional costs of organizations which have staff replacements and retraining, special supervision, work flow interference, unplanned absences and service complaints, and the cost of sick leave leading up to the compensation claim (Toohey, 1995). Furthermore, more important than the previous claim, individual costs, such as: loss of self-esteem, loss of professional-esteem, new or exacerbated physical symptoms, loss of physical stamina, disruption to intimate life, lost hours of professional development, loss of professional sensitivity or increased psychological distress, are not considered. Bearing the afore-mentioned, the cost of occupational stress grossly underestimates the real cost of the issue.

RELATION BETWEEN INDIVIDUAL DIFFERENCES AND OCCUPATIONAL STRESS

It is normal to expect that different people perceive the overall working environment differently. Typically, when stress is an issue, different employees have different abilities of coping with it in achieving their goal. How the individuals respond to the stressors mainly depends on their personality, their perceptions, and their past experience. Some stress is necessary in that it assists workers in achieving both the work and their personal goals. However, too much stress causes negative effects both on an individual and organizational level and will create difficulties to cope with challenges.

The demographic factors and their influence on the dimensions of occupational stress have been studied by various researchers in the academic literature. In this perspective, some studies have revealed that females experience higher levels of work stress considering certain gender specific stressors and have different patterns of managing stress problems that might arise in their working environment (Offerman & Armitage, 1993, in Antoniou *et al.*, 2006). For instance, males have statistically significantly lower job stress scores, as Sharpley *et al.* (1996) revealed. In addition, Fotinos-Ventouratos & Cooper (2005) discovered that female managers are the ones who perceived more stress than the male managers. In the research of Antoniou *et al.* (2006), it is clearly presented that female teachers are those who experienced much more stress than their male colleagues. Ganster & Schaubroeck (1991) revealed that those women are exposed to a higher level of stress than men since they experience the non-working demand as well. According to Davidson & Cooper (1983), women managers tend to talk to someone close as a method of dealing with stress more often than male managers. Eventually, the results of the bivariate analysis conducted by Fotinos-Ventouratos & Cooper (2005) clearly presented significant differences in terms of physical and psychological well-being among the males and females.

Considering the nexus between the age and occupational stress, researches have also highlighted that the abilities of coping and managing stress increases at a linear pace with the age of the individual (Sager, 1990). Coping patterns were found to be less utilized by younger workers compared to their older colleagues (Osipow *et al.*, 1985). It has been revealed that mature workers expressed decreased amounts of environmental stress but increased amounts of Role Overload and Responsibility than younger workers (Osipow *et al.*, 1985). For instance, in the research of Dua (1994) it has been indicated that younger employees reported more job stress than older workers. In the paper of Ben-Bakr *et al.* (1995) it has been revealed that employees who are younger than 30 years of age experienced the

highest levels of stress, the workers between the ages of 31 and 40 are the ones who experienced the greatest amount of job stress (Sharpley *et al.*, 1996). In the end, employees who work at higher levels within the organization are less stressed than those employed at lower job levels (Dua, 1994). Overall, age as a significant variable has mixed results and is of interest in this study. By bearing this in mind and timely recognizing the symptoms of stress, damages and unwanted outcomes in the working environment may be prevented. Lastly, a general tendency exists in the literature according to which staff employed at the higher job levels were found to be less stressed than those employed at the lower job levels (Dua, 1994). As well, different levels of management influence preference for stress coping styles, specifically, as it is progressed towards the more senior levels of management, delegation and maintaining style relationships are considered the most useful forms (Kirkcaldy & Furnham, 1999).

RESEARCH METHODOLOGY

Is there an overall occupational stress among the employees within the company, what is the level of stress among different categories of employees and how the occupational stress is related to the individual differences (gender, age, marital status, parenthood, number of children, hierarchical and departmental affiliation in the company and working hours spent at the current job)- were the main research problems.

Hypothesis

The general hypothesis predicted that *there is an overall stress among the employees* within the company and that employees differ in their level of stress.

Variables

Variables upon which employees were grouped into different categories and that were used for the assessment of the relationship between individual differences and self-reported occupational stress were chosen from earlier researches and models of stress. Precisely, five demographic (gender, age, marital status, parenthood, and number of children) and three organizational determinants (hierarchical level, department, and working hours) of various levels of stress were assessed. The research has been performed using the quantitative method. The company is a leader in its industry segment as well as a national leader for providing telecommunication services in Macedonia. The convenience sample consisted of 53 employees, who come from different departments within the company. The

employees were grouped in several categories due to the consideration of different employee variables. A questionnaire has been created which consisted of a set of 30 questions in total; thereby encompassing the questions related to the employees' individual characteristics, which have been selected based on previous research. The questionnaire was distributed to the participant by email, as well as the participant being directly contacted, and they were asked to return it back within one week. The participants were randomly chosen in order to represent the certain organizational area from the company. Table 1 depicts their profile.

Table 1- *Profile of respondents*

Variable	Structure(%)
Gender	male(57%), female(43%)
Age	under 30 years (19%), 30-39 years (56%), 40-49 years(23%), over 50 y(2%)
Marital status	married(66%), not married (26%), divorced (8%)
Parenthood	children (66%), no children (34%)
Number of children	two (54%), one(46%)
Hierarchical level	first level managers(21%), middle level managers(7%), top managers-none, other (72%)
Department	technical area (17%), finances (19%), marketing (19%), sales(24%), HR (6%), other (15%)
Working hours	less than 8 hours (7%), 8-9 hours(74%), more than 9 hours (19%)
Working experience	under 1 y(8%), 1-2 (10%)2-5y(26%),5-10(32%) 10-15y(13%), over 15 (11%)

RESEARCH FINDINGS

The research question was the following: how the employees perceive occupational stress within the company in different areas, and according their demographic and organizational characteristics. The employees' responses to the question as to how personally perceive they find occupational stress can be found

in Table 2. In order to find out whether employees differ in their average level of stress perceived as a consequence of their demographic and work characteristics, employees were grouped into 28 subgroups devised using eight individual differences (gender, age, marital status, parenthood, number of children, hierarchical level, department, and working hours). The data were taken from a questionnaire asking the respondents about various aspects of work-related health and stress questions such as general stress, feeling of fatigue, experiences of headaches, low motivation. Each of these was reported using a nominal level measurement with a yes/no answer to each question. For this paper the focus is on the differences experienced when it comes to the level of overall stress experienced by the employees.

Table 2 - Experienced stress in relation to the individual differences

		No. of respondents in %	Experienced stress in %
Gender	Females	45.28%	70.83 %
	Males	54.72%	65.52%
Age	Less than 30 years	18.87%	60.00%
	30-39 years	58.49%	77.42%
	40-49 years	20.75%	45.45%
	50 or more	0.00%	0.00%
Marital status	Married	64.15%	70.59%
	Unmarried	28.30%	60.00%
	Divorced	7.55%	75.00%
Parenthood	Children	64.15%	67.65%
	No children	55.88%	68.42%
No. of children	One	41.18%	78.57%
	Two	58.82%	60.00%
	Three and more	0.00%	0.00%
Hierarchical level	Not managerial level	73.58%	64.10%
	First level of management	20.75%	81.82%
	Middle managers	5.66%	66.67%
	Top managers	0.00%	0.00%

Department	Technical area	16.98%	100.00%
	Finances	18.87%	70.00%
	Marketing area	18.87%	40.00%
	Sales area	24.53%	76.92%
	HR	5.66%	66.67%
	Other	15.09%	50.00%
Working hours	less than 8 hours per day	7.55%	100.00%
	8-9 hours per day	73.58%	58.97%
	more than 9 hours per day	18.87%	90.00%

As evident from table 2, altogether, the employees perceive moderate level of stress. All the significant relations based on testing the relation of the occupational stress and individual are the following:

1. Gender differences are represented by the following figures: females are represented by 45.28% and 70.83% of them reported perception of increased stress. The rest of them are those who reported no stress or do not know, however those are insignificant. On the contrary, the males are represented by 54.72% and 65.52% of them, claimed that stress is present in their lives. The rest of the respondents are equally divided in the other two categories of no stress perceived or do not know and both are insignificant. Although it is shown that women perceive more stress than men, overall we can conclude that there is no significant difference in stress perceived by men and women.
2. In relevance to the age, the study reveals that younger employees (30-39 years of age) perceived more stress, which corresponds with the dominant existing research findings. Furthermore, it is evident that mature employees have developed skills for coping and managing occupational stress which is not the case with previously discussed groups.
3. When we analyze the outcome of the survey related to marital status, we can reveal that 64.15% are married, 70.59% reported experiencing stress, while 23.52% reported no stress. The others are insignificant to be treated. The next group is the employees who are not married and those are 28.30%, 60% of them have experienced stress. The other figures are insignificant to be analyzed since we have few of the respondents who reported no experienced stress or do not know. The last sub-group embraces the divorced, who are only 7.55%, and 75% of them reported stress. In such a case, where we are not faced with adequate distribution of the respondents within the subgroups, we will take into account the married as ones who are the most affected by occupational stress.

4. Opposite to dominant research findings, the study has revealed that employees who have one child experienced the greatest level of stress if we compare with those who reported to have two children. They reported less experiences of stress, although common sense implies that employees who have more children perceive significantly higher levels of stress due to the multiplication of their responsibilities.
5. Number of hours respondent works is found to be the variable that relates significantly to someone's level of occupational stress and the ones who are stressed the most are those who work more than 9 hours per day. Respondents who experienced stress represent 90% of the respondents. The next are the employees within the sub-group of 8-9 working hours per day, and 58.97% of them reported that they experience stress. In the last sub-group are the employees who work less than 8 hours per day, but since they are less than 18.87%, the outcome will not be relevant and taken into consideration. This correspondent with the common sense which implies that employees working longer hours experience greater stress.
6. Hierarchical level is found not to be relevant and taken into consideration as a consequence of not having respondents in one of the subgroups or top managers.

DISCUSSION

Relations between occupational stress and individual differences are very important imperative for managing occupational stress. The focus of this research was to see how employees within the company from Macedonia experience the occupational stress with special attention to the existence of nexus between their individual differences and the level of stress. The research data show that employees (from the analyzed company and grouped in eight categories) perceive different levels of stress, and that there is a link between individual characteristics and overall occupational stress, so it can be highlighted the that occupational stress is inevitable and all employees are affected by it in different departments within the company. From the result, it can be discovered that stress is more often experienced in the first groups of ages. It is particularly more than evident in the age group of 30-39 years of age, and lower levels of stress are present in the age group of less than 30 years of age. Other age groups can't be said to have negative effects of working related stress. These data have confirmed that the first hypothesis which predicts that occupational stress increases as the age increases is not supported and is the opposite of the obtained results from the survey. We also find out a logical explanation in the literature that younger employees are more prone to

stress due to the fact that mature workers during the years have developed personal skills and mechanisms for coping with and managing occupational stress. (Dua. 1994; Ben-Bakr et al.1995). Employees who are parents of one child or aren't parents experienced more stress than others. These data fully neglected the second hypotheses that claimed that parenthood is connected with employees' occupational stress.

However, because of the nature of this research, that is focused on testing occupational stress in one company, cause and effect relationship between the parameters could not be established, nor the results cannot be generalized. It can only demonstrate that there is a linkage between occupational stress and individual differences of age, marital status, parenthood, number of children and hierarchical level, helping for other researchers to investigate more and also create an awareness for the managers to occupy their attention more.

CONCLUSION

Occupational stress has been of great concern to employees and other stakeholders of organizations. Occupational stress researchers agree that stress is a serious problem in many organizations. The principal purpose of this research was to investigate occupational stress and its nexus to the individual differences. The literature reinforced the need for the present study. Consequently, it can be revealed that certain employee groups perceive higher levels of stress than others. In summary, the results of the study indicate that the greatest level of stress perceive employees who have one child or no children, who are younger than 39 years, and those employed in technical area and sales, at lower levels. Concerning the relationship between individual differences and levels of stress experienced, although the case study does not allow for causal, findings suggest that there is a connection between age, parenthood, number of children and hierarchical level, working hours and the way stress is perceived, while gender and marital status are not significantly related to it. Based on the findings, the conclusion that can be drawn is that organizations should attach greater importance to demographic and work characteristics of individuals when recruiting, developing and motivating, as those characteristics provide a good starting point for understanding and predicting how people will respond under different types of stress. More to it, findings may help to implement effective prevention programs against occupational stress, considering how different categories of employees perceive stress at work. Good management will assure benefit for the organization while treating an issue in an organizational context. When the organization will achieve mutual cooperation

with the employees to alleviate occupational stress as much as possible, success is unavoidable and the benefit that the organization and individual will experience is increased productivity, increased personal well-being and emotional stability.

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