Gender differences in work stress, related to organizational conflicts and organizational constrains: An empirical research

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Abstract

In modern era, stress at workplace is a component of employees’ and organizations’ daily routine. The current research intends to study the gender differences as far as the ways that stress is witnessed in the workplace is concerned. Participants in this study were 231 Greek adults, employed at various workplaces. During their working hours they were asked to fill in a questionnaire which contained two different measurement scales. The main hypothesis was that men would show interpersonal conflicts at workplace to a larger extent; also that both men and women would not be so different on stress that stems from organizational constraints. The research findings did not confirm all the research hypotheses, because men were found to express their stress at a larger extent through interpersonal conflicts with their colleagues as a result of organizational constraints. The research data on the different stress manifestations at workplace are in accord with the relevant bibliography. Finally, this study contributes to the empirical support of the existence of gender differences in stress manifestations at workplace, even though the questionnaire that was used was no validated in Greece.

Keywords: stress, work, gender, research

JEL Classification: J28, J81, D23, O15

1. Introduction

The origins of word “stress” come from mechanics and refer to the exterior pressure that is exerted to an atom and results to this atom’s tension (Kahn & Byosiere, 1992). Yet, there is a great disagreement to the definition of stress and not a generally accepted theory for its interpretation. In psychology, stress is defined as “an unpleasant emotional situation that contains feelings of tension, fear or even terror as an answer to a danger whose source is to a large extent unknown or unrecognizable” (Manos, 1997). The stress in the workplace is the stress that manifests itself at workplace and refers to the employees’ perception of workplace as threatening (Caplan, 1980).

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It is an indisputable fact that all jobs create stress to the employees in different degree, a stress that can cause changes in the organism’s natural function and have consequences for person’s health. Especially, job responsibilities that are related with humans are more likely to lead to heart condition, rather than job responsibilities that are related to commodities’ management (Arnold et al., 2005; Miner, 1992). Stress at workplace is a main issue that concerns not only the employees, but also the organizations and the community in general. According to “H.S.E.” (Health and Safety Executive, 2009), around 500.000 employees in Great Britain feel stress at their workplace in a degree which they are considered negatively affecting their health. Also, more than 5.000 employees feel extremely stressed at their workplace, a stress that costs the British society around GBP 3,7 billion each year. The dominance of workplace stress is high, as it is revealed by a study involving 16.000 European employees, 29% of who believe that their working activities had negative impact for their health (Paoli, 1997). For this reason, it is of great importance to study the workplace stress, because of its harmful consequences both for the employees and for the organization.

Through the years, different interpretation theories of stress have been formulated. The Social Environment Model or “Michigan Model” is an attempt of categorization and representation of the employees’ stressors, factors that are mainly attributed to the job characteristics or organization characteristics. Consequential to “Michigan Model” inspection was the Person-environment fit theory (Furnham, 2005). Demand Control Model is another theoretical approach by Karasek and Theorell (1990), according to which, the combination, either additive or multiplied, of high psychological demand conditions, like very fast and/or hard work, and low control in decision making, such as the employee’s ability to make specific decisions for his/her work, may lead to intense stress with consequences for health. The theory of imbalance between work efforts and rewards focuses on whether employees are rewarded for the efforts they made. Accordingly, then, to this theory, when a worker receives rewards that are perceived as not so high as his efforts, the resulting emotional response increases the risk of work absence. The essence of this model is the response of the individuals to external demands they are called upon to respond, and the needs arising from the fulfillment of their personal aspirations and expectations (Chmiel, 2000; Furnham, 2005; Siegrist, 1996).

The overview of bibliography showed two different categories of workplace stress factors, the external stressors and the internal stressors. The working conditions in each organization, which include on the one hand the structural elements of workplace and on the other hand the realistic working conditions, are part of the external stressors. The physical design of workplace, the working complexity, the introduction of new technology may become stress factors. (Arnold et al., 2005; Schultz, 1998). The workload, working hours and shift work, play a role in the occurrence of work-related stress.

The organizational climate and the organization’s management are equally potential stressful working factors (Arnold et al., 2005; Furnham, 2005; Schultz & Schultz, 1998). An extremely interesting finding of modern bibliography is the fact that the contact with other people at workplace may constitute a main source of stress, as well as a source for support (Makin Cooper & Cox, 1996). The present research examines two exogenous factors of
stress, namely the organizational constraints and the interpersonal conflicts. Both these factors can have negative effects on the work environment. According to Sliter et al (2011), interpersonal conflicts within the working framework are influencing employees’ behavior both among themselves and in relation to their customers. Furthermore, interpersonal conflicts are associated with adverse effects in the employment context. Agreeableness, as a personality characteristic and social support, absorb the emotional tensions arising from conflicts (Ilies et al., 2011). In addition, emotional exhaustion and oppression caused by interpersonal conflicts exacerbated by passive coping strategies of problem (Dijkstra et al., 2009).

The second category of workplace factors consists of the internal or personal stress factors. Gender, the object of the current study, is an interesting internal stress factor in the workplace, including both the social and biological gender.

Gender, in the context of organizational psychology contemporary research, is examined as a factor influencing stress in relation to welfare issues (O’Neil & Davis, 2011), job satisfaction (Aydin Uysal & Sarier, 2012; Steenbergen et al., 2011), work-family conflict and production deviance (Ferguson Carlson, Hunter & Whitten, 2012), work performance (Olorunsola, 2012), and productivity (Hasanzadeh Shirbeigi & Olazadeh, 2012).

According to the bibliography, gender plays an important role in the manner that a person would express his/her stress, a stress whose source may differ depending on his/her duties. Taking into consideration that personal characteristics, like social gender, may affect the workplace stress manifestations (Gianakos, 2000; 2002), it is important to clarify that a big part of modern research consists of issues relevant to stress and work satisfaction with regard to the distinction between work family and social supporting framework (Cavaioila et al., 2012; Innstrand et al., 2009). After the gradual increase of women’s participation in the job market, some researchers begun to employ female subjects in their research samples, but only few of them were changing their initial hypotheses. As a result, women appeared to be in a more inferior position than men. (Long & Cox, 2000). Several studies in recent years study the gender in the manifestation of work-related stress. In their research in Taiwanese, employees in bank branches, Yu-Chi & Keng-Yu (2010), wanted to identify the differences between the social role of gender in relation to job stress. Specifically, participants had to complete two questionnaires, one for the social characteristics of masculinity and femininity and one for work-related stress. The results showed that the subjects with more masculine characteristics exhibited less stress levels compared to the subjects who had higher scores in feminine characteristics. Furthermore, they found that a comparison of stress and biological sex did not make any difference. Also, Meško Videmšek, Štihec, Meško-Štok & Karpljuk (2010), in their research concerning 85 managers in Slovenia, found that female managers have higher stress levels and more severe anxiety symptoms compared with the male participants. In a study among 400 teachers in Pakistan in primary and secondary schools, it was found that gender is a very strong predictor of teachers’ stress (Rubina, Sadaf, & Masood, 2011). Agagiotou (2011), studied the effect of work stress, job commitment and emotional intelligence of social workers, and she found that female social workers exhibited higher levels of anxiety than
male. In addition, Galanakis et al (2009), identified differences in job stress between the sexes. However, these differences annihilated when the factors “years of education” and “marital status” were also examined.

A decisive factor and basic reason for the existence of gender differences, regarding stress manifestations, is the existence of differences between the stress stimulus that the two gender encounter in their workplace and their exposure range to different stimulus types (Bekker, Nijssen, Hens, 2001).

The current study aims to cover the research gaps which have aroused in relation to the workplace stress and gender differences in terms of its manifestations. Particularly, it plans to study the gender effect on stress manifestations at workplace. A decisive role in the formulation of research hypotheses played the increased presence of women in up to now male-dominated workplaces. According to the bibliography, the roles that are assigned at workplace have led women to perceive their working conditions differently (Bekker et al., 2001), as also their treatment as passive presence in organizations without central or contending roles towards men who usually have a different action motif (Cooper & Davidson, 1983). Hence, the following hypotheses had aroused: firstly, men would have higher stress levels related to interpersonal conflict in their workplace than women (Hypothesis 1), secondly, both men and women will have the same levels of stress attributed to organizational constraints which means same degree of difficulty to accomplish their job duties (Hypothesis 2).

2. Method

The current study is a poll research which uses inventories in order to collect data. This type of research was chosen because it makes possible for data collection from a large number of participants in various workplaces and occupations. Furthermore, the use of inventories is a method characterized by small time consumption and low printing cost of the questionnaires (Kostaridou-Eukleidi, 1999).

2.1 Participants

In the present study, among the 231 Greek adults with an average age of 37.5 years (S.D. = 10.35 & R = 40) that participated voluntarily, 94 were men and 137 were women. All participants were at least 18 years old and had Greek nationality. The male participants’ sample consisted of nurses (N = 2), auto electricians (N = 6), production machine operators (N = 7), pharmacists (N = 3), doctors (N = 8), secondary school teachers (N = 4), graphic designers (N = 2), accountants (N = 4), vendors (N = 13), administrative staff (N = 24), supervisors in industry and crafts (N = 8), militaries (N = 8), librarians (N = 1), workers (N = 3). The female participants’ sample consisted of nurses (N = 15), pharmacists (N = 9), doctors (N = 4), workers in cloth production (N = 5), secondary school teachers (N = 9), graphic designers (N = 11), accountants (N = 14), shopping assistants (N = 15), administrative staff (N = 35), supervisors in industries and crafts (N = 5), militaries (N = 2), librarians (N = 9), and workers (N = 5).
2.2 Measures

In the current study, a work stress questionnaire and pencils or pens were used for the collection of data. The work stress questionnaire that was used was the one of Paul E. Spector and Steve M. Jex (1998), translated by Nikolaou I. Assistant Professor of Organizational Behavior at Athens University of Economics and Business. More specifically, the questionnaire consists of 38 closed-ended questions and examines the interpersonal conflicts at workplace, the organizational constrains, the quantitative workload, as well as the physical symptoms related to workplace stress. However, the present paper presents only two scales of the aforementioned questionnaire which consist of 15 questions. More specifically, the interpersonal conflict factor arises by the use of Interpersonal Conflict at Work Scale (ICAWS), and consists of four questions with five possible answers: never, rarely, sometimes, quite often, and often. This factor aims to investigate colleagues’ relationship qualities, as well as the frequency at which each participant is involved in disputes and behaves badly to his colleagues. The score each respondent can have on this scale is between four and twenty points, with higher scores indicating more conflicts within the working framework. The internal consistency of estimated reliability is stated by the authors at .74 in Cronbach’s Alpha scale. The organizational constraint factor emerges from the use of Organizational Constraints Scale (OCS) and consists of 11 questions with five possible answers: Less than once a month or never, One or two times per month, Once or twice per week, Once or twice per day, Several times per day. This scale aims to investigate those factors or situations that hinder employees from performing their work properly. The score each employee can reach in this scale ranges from 11 to 55, with higher scores indicating greater difficulties in work performance. According to the creator, the Cronbach’s Alpha scale is not a sufficient method for calculating the reliability of this scale. Finally, in the beginning of the questionnaire, respondents had to answer some demographic questions such as the gender.

2.3 Procedure

Questionnaires were distributed and answered to in the participants’ workplace, aiming to save time and give to our subjects a sense of familiarity. Participants took part in the procedure with the permission of their supervisors. Participants had oral instructions about the completion of the questionnaire. Instructions were also available on the questionnaires. More specifically, participants were asked to complete all questions without exception, by specifying to which extent the frequency of their experience is presented in each question. Participants had the right to give only one answer. The administration of the questionnaires was done both individually and in groups, depending on the conditions and the directions provided by the participating companies. None of the participants needed more than 20 minutes to complete filling the questionnaire.

2.4 Results

For the analysis of this survey results, an independent-samples t-test was conducted
to compare men and women, in order to find if there are gender differences in expression of work stress. As we can see in Table 1, the results with statistic significance \( p < .05 \), show that there is a significant difference between men and women in the way they express stress in workplaces. More specifically, men (\( N = 94 \)) are those who express more work stress not only in the interpersonal conflict scale \( [t (229) = 2.45] \), but also in organizational constraint scale \( [t (229) = 2.37] \). In detail, as Table 2 shows, men are involved in disagreements with their colleagues more often than women \( [t (229) = 2.86] \) and they were treated with rudeness from their colleagues \( [t (229) = 2.4] \). Also, male subjects found it difficult or impossible to work due to incorrect instructions \( [t (229) = 2.96] \), inadequate equipment or supplies \( [t (229) = 2.04] \) or lack of necessary information about what to do and how to do it at any given moment \( [t (229) = 1.51] \). Finally, male subjects found it difficult to work when they were interrupted by others \( [t (229) = 1.56] \).

**Table 1: T-test for comparison of Means in work related stress expression by gender**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Males ( N = 94 )</th>
<th>Females ( N = 137 )</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal Conflict at Work Scale</td>
<td>9.65 3.29</td>
<td>8.73 2.40</td>
<td>2.45</td>
<td>0.01</td>
</tr>
<tr>
<td>Organizational Constraints Scale</td>
<td>20.56 11.55</td>
<td>17.65 7.15</td>
<td>2.37</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Table 2: T-test for comparison of Means in work related stress expression by gender**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Males ( N = 94 )</th>
<th>Females ( N = 137 )</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.1: How often do you get into arguments with others at work?</td>
<td>2.71 1.05</td>
<td>2.35 0.86</td>
<td>2.86</td>
<td>0.01</td>
</tr>
<tr>
<td>Q.3: How often are people rude to you at work?</td>
<td>2.65 1.15</td>
<td>2.33 0.87</td>
<td>2.4</td>
<td>0.00</td>
</tr>
<tr>
<td>Q.4: How often do other people do nasty things to you at work?</td>
<td>2.14 1.08</td>
<td>2.06 0.84</td>
<td>0.63</td>
<td>0.02</td>
</tr>
<tr>
<td>Q. 10: Poor equipment or supplies.</td>
<td>2.24 1.49</td>
<td>1.88 1.19</td>
<td>2.04</td>
<td>0.00</td>
</tr>
<tr>
<td>Q. 11: Organizational rules and procedures.</td>
<td>2.08 1.44</td>
<td>1.78 1.10</td>
<td>1.81</td>
<td>0.00</td>
</tr>
<tr>
<td>Q. 12: Other employs.</td>
<td>2.07 1.32</td>
<td>1.74 1.08</td>
<td>2.08</td>
<td>0.03</td>
</tr>
<tr>
<td>Q. 13: Your supervisor.</td>
<td>1.92 1.42</td>
<td>1.52 1.01</td>
<td>2.5</td>
<td>0.00</td>
</tr>
<tr>
<td>Q. 14: Lack of equipment or supplies.</td>
<td>2.12 1.53</td>
<td>1.84 1.25</td>
<td>1.51</td>
<td>0.00</td>
</tr>
<tr>
<td>Q. 15: Inadequate training.</td>
<td>1.78 1.21</td>
<td>1.45 0.84</td>
<td>2.4</td>
<td>0.00</td>
</tr>
<tr>
<td>Q. 16: Interruptions by other people.</td>
<td>2.17 1.32</td>
<td>1.93 1.04</td>
<td>1.56</td>
<td>0.00</td>
</tr>
<tr>
<td>Q. 17: Lack of necessary information about what to do or how to do it.</td>
<td>2.17 1.5</td>
<td>1.9 1.17</td>
<td>1.51</td>
<td>0.00</td>
</tr>
<tr>
<td>Q. 18: Conflicting job demands.</td>
<td>2 1.32</td>
<td>1.69 1.06</td>
<td>2</td>
<td>0.04</td>
</tr>
<tr>
<td>Q. 20: Incorrect instructions.</td>
<td>2.25 1.48</td>
<td>1.77 0.99</td>
<td>2.96</td>
<td>0.00</td>
</tr>
</tbody>
</table>
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2.5 Results Discussion

The difference in how organizations function may be a factor that explains the differences between the two genders in the way that they express stress related to work (Matuszek, Nelson, Quick, 1995). According to our first hypothesis (Hypothesis 1), it was expected that male subjects will experience higher levels of work stress related to interpersonal conflicts in workplace. A study conducted in England by Cherry (1978), in about 1,500 young male adults shown that a sizable amount of the sample was under frustration during their work. This finding may explain the fact that in our study, male subjects proved to experience higher levels of stress in the field of interpersonal conflicts with their colleagues. This finding confirms our first scientific hypothesis about the men having higher levels of work related stress due to interpersonal conflicts (Hypothesis 1).

The emergence of the existence of gender differences in interpersonal conflicts is very important, because, as shown by O'Neil & Davis (2011), interpersonal tensions in work are associated with less satisfaction derived from work and more chances for work turnover. It should be also noted, that Slišković & Seršić (2011), in contrast to our research, found that women associate and assistant professors showed more stress related to interpersonal relationships, unlike their male colleagues, a finding which can be explained by using this particular sample.

Furthermore, regarding our second research hypothesis (Hypothesis 2), in which equal levels of stress between the two genders were expected due to organizational constrains in the workplace, the results did not confirm our hypothesis. The result analysis showed that, in comparison with women, men have higher levels of stress related to organizational constrains, due to the incorrect instructions they receive, the lack of supplies and specific information necessary for their work performance, and the interruptions of their colleagues as the most stressful conditions. These results contradict the results of Slišković & Seršić (2011) in academics, where assistants were experiencing more stress levels than men in matters having to do with teaching material shortages and technical issues.

3. Conclusions

Despite the fact that gender has been studied heavily in the past in relation to work-related stress (Caplan, 1980), today still continues to be investigated as a variable, showing thereby the importance of gender in the workplace context (Rubina et al., 2011; Meško et al., 2010; Agagiotou, 2011; Galanakis et al., 2009).

The current research study examines the effect of gender in workplace stress manifestation. For the investigation of this effect, the Spector & Jex (1998) questionnaire, which measures workplace stress and consists of four scales, was used. The paper presents two scales, the interpersonal conflicts and the organizational constrains ones. From the 231 adults that provided answers to the questionnaire, 94 were male and 137 were female.

The data processing, which did not confirm both hypotheses, revealed that men demonstrate higher stress levels in interpersonal conflicts’ scale and in organizational constrains.
constraints’ scale. Taking into consideration both the employees’ and organizations’ need for a less stressful and more productive workplace, the present study intends to contribute both in theoretical and practical level by showing the different gender stress manifestation at workplace. On a theoretical level, the study aims to contribute to a better understanding of stress manifestations, as they differed in men and women. On a practical level, the contribution of this study lies in the utilization of research data by organizations’ managers, in order to adjust working conditions to employees’ demands by taking gender into account. Through the study of the economic consequences of workplace stress to organizations (Health and Safety Executive, 2009), the adoption of a workplace stress reduction policy appears necessary for the increase of productivity and psychological and physical well-being of employees as the ulterior motive. Therefore, the present research findings can be used for stress prevention at workplace.

Taking into consideration that the current study was conducted during the economic crisis, with increased fear and stress for an imminent layoff, it appears reasonable to repeat the research in the future. Even though that gender appears to collate with stress, the research analyses affirm only some degree of applicability, but not a causal relation between them, whereas the existence of stress manifestations could be attributed to the personal characteristics of the employees. Although there was an effort to have a sample of a wide range of workplaces, the final choice was based on their easy access, either due to organization’s policy or due to employees’ reluctance. Additionally, there was an out of proportion representation of gender per job, as well as an out of proportion representation of gender in whole. Another limitation of the study was the lack of a questionnaire validated in Greek population, which made the use of a translated American questionnaire compulsory.

A proposal for future research would be a corresponding study which could be made by using a validated tool, as long as it is available, and by using a sample with better analogy regarding gender and occupation. The use of a quantified questionnaire instrument, as it was the case in this study, has advantages concerning results generalization but it may not be able to identify other factors, possibly important, causing stress in the employment context. For this reason, the use of qualitative techniques might identify other significant sources of stress in the workplace.

Last but not least, and given the lack of a relevant bibliography, a new research challenge could be the study of the relation between workplace satisfaction and workplace stress.

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