# Survey of Work- Related Stress in Medical Students in Iran

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## **ABSTRACT**

Stress is the second most frequently reported work-related health problems after musculoskeletal diseases, affecting 22% of workers in the European Union (EU). Work-related stress is one of the major causes of occupational ill health. In recent years various international organizations have set initiatives in motion to raise awareness regarding the psychosocial risks of work-related stress. In 2013, 140 of Intern and Phisiopathology students of Azad Medical University in Shahrood were recruited to take part in a cross-sectional study. The data collection was a questionnaire. The results showed that frequency of work-related stress in students was 70.26%. The average of age was 24.44. There is significant relationship between work-related stress and sex, age, and housing. It was concluded on the basis of survey, and results that attention to prevention of work-stress disorders should be considered as priority in medical schools. For the students exercise training courses for understanding the harms of this condition causes are necessary.

**Keywords:** Stress, medical students, work-related health problems

## INTRODUCTION

Stress is the second most frequently reported work-related health problem after musculoskeletal diseases, affecting 22% of workers in the European Union (EU) [1]. It accounts for 50e 60% of all lost working days. In 2002, the annual cost of work-related stress in the EU-15 was estimated at V 20 billion [2]. According to the EU Framework Directive 89/391/EEC, employers have the obligation "to ensure the safety and health of workers in every aspect related to work" and "to adapt the work to the individual". However, no specific measures to protect against work-related stress were set out among European countries [3].

In recent years various international organizations have set initiatives in motion to raise awareness regarding the psychosocial risks of work-related stress. In 1999, the European Parliament urged the European Commission to analyze additional problems that were not covered by existing legislation, such as stress, fatigue, and aggression [4]. The World Health Organization, in its Ministerial Conference on Mental Health in 2005, emphasized the importance of mental health, well-being and prevention, treatment, care and rehabilitation for mental health problems; these issues were referred to the con-text of the workplace, and acknowledged the important role of research. In addition, European social partners have started to take action, by first publishing important relevant documents.

In 1989, the European Commission Council Framework Directive provided its first significant approach towards the prevention of work-related stress and the management of psychosocial risks in the document, *Introduction of Measures to Encourage Improvements in the Safety and Health of Workers at Work (89/391/EEC)* [5]. This Directive was based on the

principles of prevention and concerned all types of risk for workers' health [6]. Following this directive, all employers have a legal obligation to protect the occupational safety and health of workers. This duty applies to problems of work-related stress and is reflected in the labour legislation of many European-member states.

An important document concerning work-related stress was published in 2000 by the European Commission; the "Guidance on Work-Related Stress" [7], in which stress was defined as "a pattern of emotional, cognitive, behavioral and physiological reactions to adverse and noxious aspects of work content, work organization and work environment." The main causes of stress were listed as the following: over- and under workloads; lack of recognition; no opportunity to voice com-plaints; excess responsibilities with little authority; lack of a clear job description; uncooperative or unsupportive superiors; co-workers or subordinates; lack of control on the job; job inse–curity; exposure to prejudice (based on age, gender, etc.); expo-sure to violence, threats, or bullying; unpleasant or hazardous physical work conditions; and no opportunity to utilize personal abilities [8].

In view of the growing impact of Health [9,10] the emerging field of health and prevention services and information delivered through the Internet and related technologies the proposed integrated method has been made available on line. The main aim was to provide scientifically validated instruments to help companies assess and manage work-related stress, in compliance with national regulations.

#### MATERIALS AND METHODS

In 2013 Intern and Phisiopathology students of Azad Medical University were recruited to take part in a cross-sectional study. The sample size was 140 students. The data collection was a questionnaire. The questionnaire covered demographic information, stress history, and measurement of stress. The important factors included sex, age, and housing. The data was analyzed through SPSS 20 version.

# **RESULTS**

From total of 140 participants, 79 were female (56.4%) and 61 were male (43.6%). Work-related stress in female was 0.44 more than males. The ages were from 21 to 32. The percent of age 21 was 5.7%, 22 was 12.1%, 23 was 19.3%, 24 was 20.0 %, 25 was 15.0%, 26 was 12.1%, 17 was 7.1%, 28 was 2.9%, 29 was 4.3%, 30 was 0%, 31 was 0.7% and 32 was 0.7% too. The average of age was 24.44 years old. (20% of participants were 24 years old).

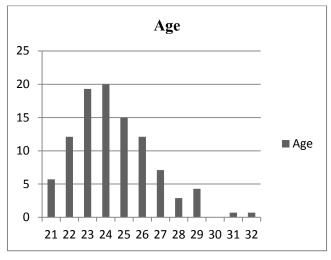


Figure 1: Age wise students

108 of students (77.1%) of students live in their own homes and 32 of them (22.9%) living in the students home.

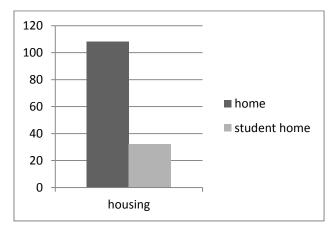


Figure 2: Residance Status of Students

The study results showed that the frequency of work-related stress was 70.26%. in sex the women are more than the men (0.44). the average of age was 24.44 years old. The majority of students live in their own homes (1.23). Also according to the T-test analysis there is significant relationships between work-related stress and age (p=0.000), sex (p=0.000) and housing (p=0.000). Also the incidence of work-related stress in stargy students was 40%, physiopathology was 35.8% and interns was 24.2% (the increase of education in the medical university can affect on work-related stress).

#### **DISCUSSION**

The frequency of work-related stress in students of Azad medical university was 70.26%. The average of age was 24.44(minimum 21 and maximum 32). 1.23% more than of students in home students are living in their homes. So there is significant relationships between work-related stress and sex, age, and housing.

There is evidence in Europe that work plays an important role in relation to mental health [6].

The methodology of assessing the stress influence on work productivity in organizations of the Romanian economic environment took into account a number of hypotheses. The hypotheses referred to the criteria of designing and implementing the system, possibility of selecting the most representative elements to reveal the correlations between occupational stress and work productivity indicators, investigation covering area (part of the assessment system). Insecurity of staff is induced by unemployment perspective: 39% of employees believe that investigated current job is uncertain, while 35% are afraid of losing their current job and 32% are willing to accept any difficulties/problems at work because they can not find another job.

Viorica Petreanu in 2013 declare Stress is assumed as being generated by the work characteristics, as follows: work correspondence with individual abilities, physical and mental is appreciated by 85% of the participants and in 14% cases the work performed is considered under the individual capacities (this last aspect is claimed by employees with over average and high education level, generally women); high work rhythm in most of the working time is claimed by employees in transports (61%), industry (57%) and constructions (57%); fixed duration of the working day is characteristic of most investigated fields, except constructions and transports; long working hours are reported by the employees in the construction industry (70%) and transports (56%); shift work is mentioned only by

employees in the health field (60%); the physical workload is perceived as stressful by people working in constructions (84%), industry (67%), trade (54%) and transports (53%) and it is accused by men (57%) and those with low education level (71%); mental workload is reported in health professions (90%), education (90%), administration (90%) and transports (83%), especially by the employees with high (87%) and medium (70%) education level; work task monotony is reported only in 20% of analyzed areas without being given to any particular field; exposure to noise and vibrations is reported by the employees in constructions (81%), transports (69%) and industry (66%), especially by men (56%) and those with low education levels (57%); exposure to increased risk of accidents is characteristic to the transport professionals (64%) and constructions (62%); clarity of job demands emphasized the following hierarchical structure (share of positive answers): 88% in health sector, 85% in administration, 82% in industry, 81% in education, 79% in trade, 78% in transports and 52% in constructions sector [11]. Benedetta Persechino declare they have no financial or personal relationships with people or organizations that could inappropriately influence their work [12].

## **CONCLUSION**

Medical students encountered high rates of stress compared to others. Academic problems and major life events were the main predictors. Enhancing faculty preventive and curative mental health services is recommended. Initiation of stress management courses and enhancing academic advising services are required since the beginning of their education.

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