

Research in occupational stress among nursing staff - a comparative study in capital and regional hospitals

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SUMMARY

Background: In European Union, occupational stress is second in frequency as a health problem related with occupation affecting 28% of employees. Occupational stress is a psychosocial risk factor in occupational field and it is present when occupational demands overcome the ability to address or control the situation.

Objectives: Research of occupational stress in the nursing staff of a General University Hospital of Athens and identification of any differences in factors related with stress in both samples under investigation.

Thesis plan: The population sample consisted of nurses and nursing assistants working in a General University Hospital of Athens and a regional General University Hospital.

Participants: The study sample consisted of 140 nurses and nursing assistants, selected with a randomization technique.

Methods-Results: In order to collect the scientific data we used the following methods:

- 1) The occupational stress scale of Kahn et al (1964).
- 2) A general information questionnaire.

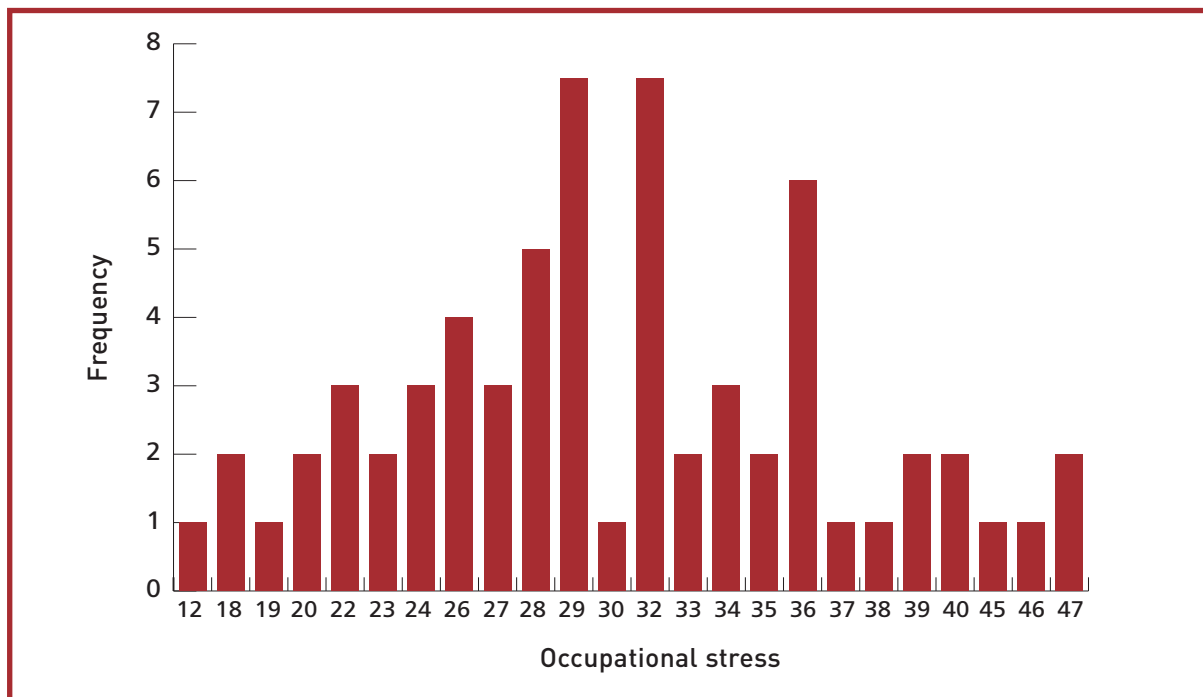
The statistical tool SPSS Version 15 was used for analysis. According to the findings of the present study, nurses suffer from occupational stress without any significant differences between the two samples. Increased work overload and conflict between professional and family roles contribute to the development of stress.

Conclusions: The evaluation of occupational conditions and the search for factors which potentially harm employees' health is essential for effective prevention. Preventing occupational stress and occupational health in general, as well as dealing with safety hazards should be an integral part of management policies and of provisional and safeguarding procedures for improvement of health care quality.

KEYWORDS

Nursing staff, occupational stress

TABLE 1. Occupational stress scale at the regional hospital



INTRODUCTION

Stress is the second in frequency health problem regarding the occupational environment. It is estimated that 28% (about 1 in 3 people) of employees within European Union experience occupational stress (Andoniou, 2007).

Occupational stress is defined as the adverse emotional state experienced when the demands due to occupational factors overcome the ability of an employee to address or control the situation. There is a subjective aspect in occupational stress, since a certain factor may be the cause of stress for some individuals but not for others (Lazarus, Folkman, 1984). The triggers usually connected with stress are physical, physiological and behavioral. In particular, physical symptoms include increased arterial pressure, allergies, ulcer, heart conditions and general symptoms concerning the employee's health, while psychological symptoms involve lack of concentration, increased tension, boredom and low work consistency. Finally, the behavioral symptoms are evident in the employee's performance and satisfaction. Three basic strategies are recommended:

- 1 Reduction or modification of stressors or moving the individual away from them
- 2 Adjusting occupational environment to the individual.
- 3 Improving the individual's coping through exercising, meditation, relaxation techniques and social support (Pandazopoulou-Fotinea, 2003).

Nurses are one of the most vulnerable professional groups to occupational stress, as they often encounter stressful situations due to the special demands of their profession (Papageorgiou, etc, 2007).

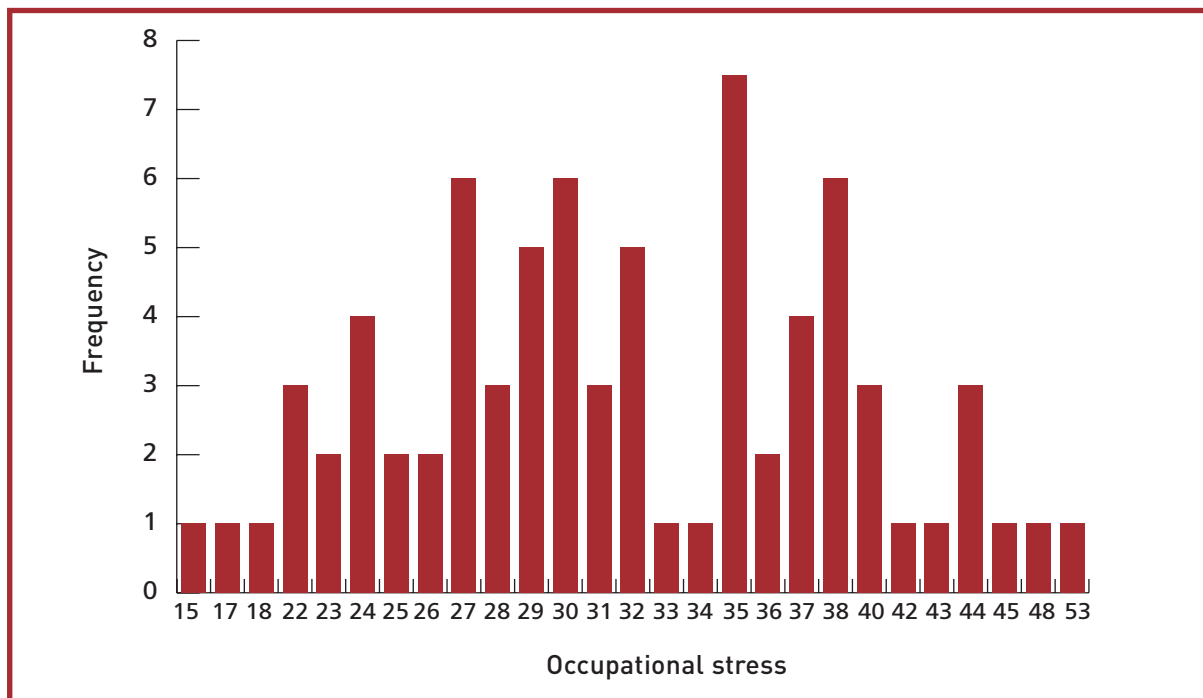
During the last two decades, the interest in stress producing factors that contribute to nurses' psychological state has increased (Pagapeorgiou, etc, 2007).

The study of occupational stress is an imperative need since it has been shown that stress has negative impact both on nurses' health and on the health organization they are occupied, with absenteeism and low quality of health care being the most frequent consequences (Ouzouni, 2005). The major stress producing factors in nurses are:

- 1 Frequently or rapidly alternating timeshifts, bad occupational conditions
- 2 Role conflict
- 3 Constant communication with a variety of people
- 4 Work overload and severity of incidents
- 5 Routine dealing with death
- 6 The lack of individual's role in the occupational environment (role ambiguity-lack of duties specification) (Papamichael, 2005).

Another important factor is the lack of support and positive feedback to the nursing staff by the administrative

TABLE 2. Occupational stress scale at the capital hospital



executives in the nursing services (Ouzouni, 2005). Clinical nurses work under conditions of intense stress with limited autonomy in decision making, since they often work under policies defined by others (Marvaki, etc, 2007).

In the bottom line, the important one who will be harmed due to nurses' stress is the patient. A nurse under stress will care for patients in a cold, indifferent and depersonalized way, with apathy and disappointment (Papageorgiou, etc, 2007). Moreover, it is possible that a nurse under stress withdraws, behaves negatively and has a short-temper, is often absent from work, and performs in a less effective manner comparing to her best and she has often wishes to quit the profession (Papageorgiou, etc, 2007).

OBJECTIVE

The objective of the present study is to evaluate the level of nurses' occupational stress and to identify any differences between the two samples.

MATERIAL AND METHODS

The questionnaire was distributed to a total of 250 nurses and nursing assistants. In detail, it was distributed to 150 nurses and nursing assistants of the regional University Hospital and to another 100 of the capital Hospital, during a time period of one month (November 2006). Sixty four questionnaires were returned completed (response rate 42,6%) from the first hospital, while in

the latter hospital, the response rate was 76%. Eighty five per cent of the sample was of female gender (15% males). The gender in the two hospitals ranged as follows: regional University Hospital, 6% females, 9,4% males; capital General Hospital, 80,3% females, 19,7% males. The average age of the sample was 37,19 years, with a standard deviation of 6,5 and a range of 33, minimum age 24 years and maximum 57 years. The average age was 37,17 years for the regional hospital and 37,21 for the capital hospital.

Data collection was conducted by a subgroup of the researchers' team after in person brief guidance from departmental supervisors, on receiving of the sealed envelopes with the completed questionnaires.

An anonymous self-completed questionnaire was used. The first section contained questions about socio-demographic factors such as age, gender, marital status, degree, further education, as well as work factors like department of work, years of work, work hours, type of service, average night shifts per month, department selection.

The second section included in the occupational stress questionnaire developed by Kahn and associates (1964). The stress evaluating scale regarding occupation (in the form of role conflict, role ambiguity and overload) contains 11 items and participants respond by choosing one among five answers: Never, rarely, sometimes, often, and almost always. These responses are scored with 1, 2, 3, 4, and 5, respectively. The total score

TABLE 3. How often do you experience emotions due to excessive overload mostly when you feel that you cannot finish your work during a normal shift?

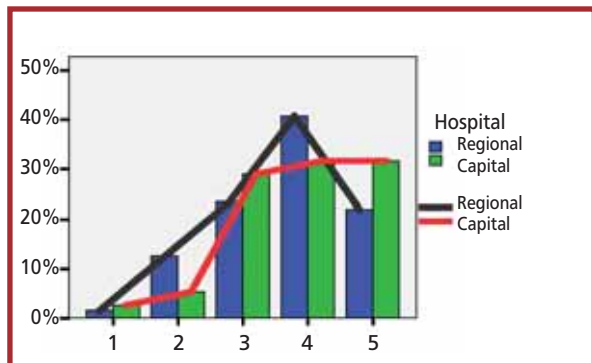


TABLE 4. How often do you feel unqualified for your job?

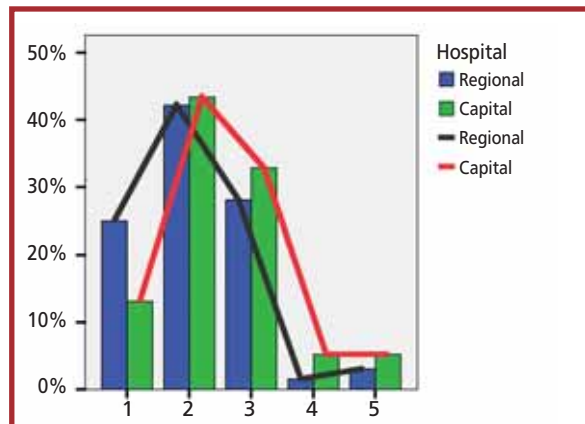


TABLE 5. How often are you affected by your decisions which have an influence on your fellow human beings and particularly on those that you are acquainted with?

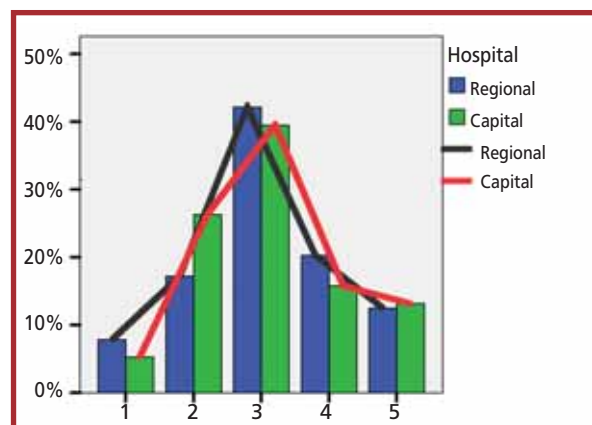
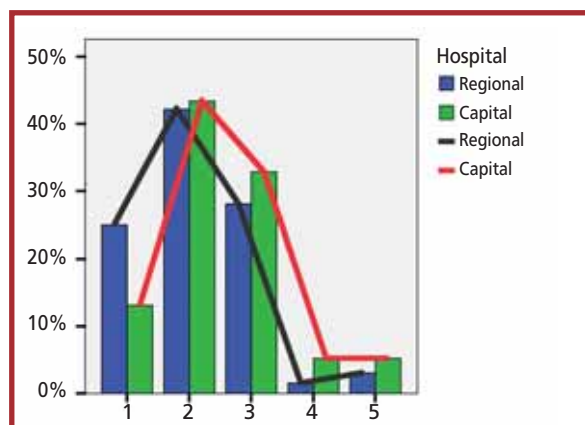


TABLE 6. How often do you feel that you are unable to influence your supervisor's decisions and actions that concern you?



represents the occupational stress level of each individual. A high score means high level of occupational stress. Consequently, the scores of occupational stress range between 11 and 55.

RESULTS

In the first part of the questionnaire: 60,9 % of nursing personnel in Regional Hospital were graduates of Technological Institutions and 39,1% had 2 years of education in Nursing. In the Capital Hospital, these proportions were 59,2% and 40,8%, respectively. The mean of years on duty was 13.68 years [standard deviation (SD) 7,7] ranging from 1 to 30 years. In detail, in the Regional Hospital, the mean of years on duty was 13,6 (SD, 8,9) and 13,74 (SD, 6,6) in the Capital Hospital.

In the Regional Hospital, the mean score in stress scale was 30,39 (SD, 7,27) ranging from 12 to 47. In the Capital Hospital, the mean score in stress scale

was 31 (SD, 7,29), ranging from 15 to 53.

The following graphs represent the frequencies of scores in stress scale in each hospital.

There was no significant difference except in the items regarding "work pressure" and "conflict between family roles and professional roles."

DISCUSSION

According to the study findings, occupational stress of nurses does not differ significantly between the two samples.

Increased work overload along with conflicts regarding work and family roles result in increasing stress.

These findings are consistent with those of previous studies that classify the nursing profession as the most stressful one compared with other health professions (Adali, et al, 2000).

The work overload (1st item) and the conflict between work and family roles (11th item) influence more,

TABLE 7. How often do you feel that during your work you have to do things that contradict your convictions?

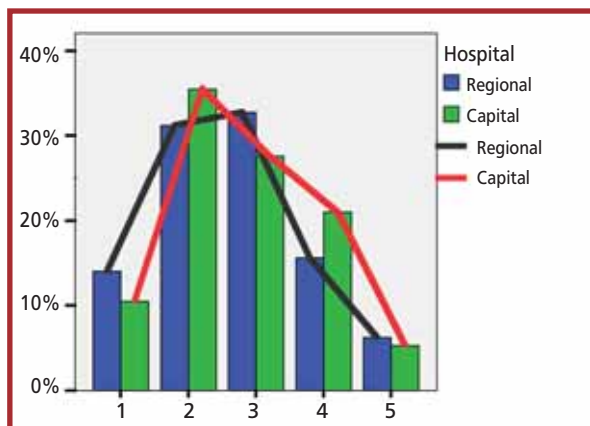
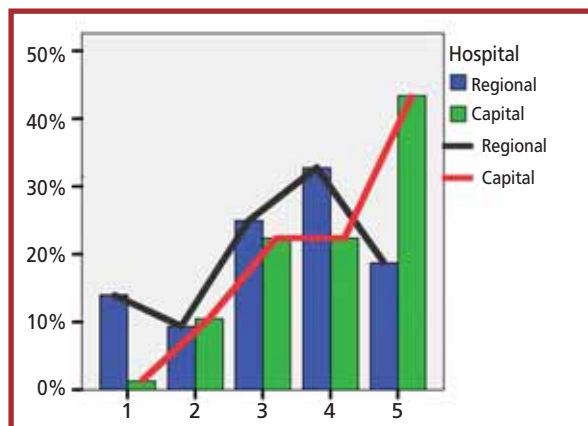


TABLE 8. How often do you feel that your work interferes with your family and personal life?



comparing to other items, the score in Kahn's scale. The conflict between work and family roles contributes to occupational stress development because fulfilling the work role may adversely affect fulfilling a role within the family and vice versa. In detail, according to Thoits (1991), a key concept to identify stressors for each individual is the role he identifies with. As role-identities, we define the ways of self awareness as part of social living (e.g. a father, a husband/wife, a member, a professional etc.). These roles offer an identity, as well as behavioral rules. When an individual fulfills the demands of his/her role-identity, self-awareness is enhanced. In case of failure, self awareness is reduced and stress is increased. The real stressors are the facts (positive or negative), depending on the extent that they affect these roles-identities and interact with our perception for them. In fact, Gruen, Folkman and Lazarus (1988) showed roles and commitments of individuals relate directly to the major every day problems and the way they are perceived.

A study conducted on 282 nurses and nursing assistants in Greek hospitals has shown that occupational roles in a hospital influence personal, family and social life of the nursing staff, and in particular, the life of women and of people employed for more than 10 years (Marvaki, et al, 2007). According to other studies, the nursing staff's family life can be influenced by their work, through frequent shifts, which are a main feature of nursing occupation. (Weiss, 2004, Michalacopoulou, 2003) and night shifts (PD Dr. Med. Hm Hasselhorn, 2007).

A study conducted on 89 mental health nurses has shown that among the most frequent sources of occupational stress for nursing staff is the role conflict between family and work (Ouzouni, 2005). Another study on mental health of nurses had contradictory

findings, where conflict between family and work had a low score in the stress scale that was used, interpreted as role conflict not being a major source of stress in that particular nursing staff (Ouzouni, 2005).

The increased workload as a stressor has been confirmed by many studies (Callaghan, 1991, Chiriboga, 1986). According to Pines (1982), workload has a negative impact on the relationships among nurses, as they have no time for social contact, interpersonal interaction and positive feedback, discussions on professional issues, determination of the healthcare unit targets and assurance on the importance of their work. In other studies, a moderate statistical significance between occupational burnout syndrome and environmental factors has been found (Stone, 1984, Constable, 1986).

CONCLUSIONS-SUGGESTIONS

Increased workload, in combination with the sense that the work role contradicts the family one, lead to development of occupational stress.

Two levels of intervention are recommended in order to prevent and manage occupational stress:

1 The primary level, where the focus is the organization itself. The targets include the identification and evaluation of the existing stressors, as well as corrective measures. A part of the primary level for occupational stress management is to take preventive measures on all levels in order to avoid stressors (Psychargos 2nd phase, 2005).

To control the potential factors that contribute to the development of occupational stress, we recommend the following:

- Evaluation of occupational stress risk factors and management of these risks, taking preventive measures for the employees (ICN).

- Reduction of work overload with rational management of human resources regarding nursing staff (Adali, Lemonidou, 2001) establishes a balance between work demands and capabilities of the nursing staff (ICN).

2 The secondary level focuses on persons and includes an individual guided training, by organizations for occupational stress management.

- Support groups. These groups of nurses, which may be coordinated by a psychologist or psychiatrist focus
 - a) on identifying all sources of occupational stress,
 - b) on exchanging experiences and realizing that many nurses also face similar situations in their work,
 - c) on self-awareness and analysis of emotions and responses of nurses,
 - d) on reassessment of the ways of managing certain stressors (Pateraki, et al, 1995).
- Time to relax between work and home.

As mentioned above, occupational stress can negatively influence a nurse's personal and family life. Introducing a time interval between work and return to home, as well as having leisure activities helps a nurse relax and block carrying stress in family life (Pateraki, et al, 1995). Of particular interest would be a program, during the nurse's shift, provided by hospital management, with the aim to help nurses relax before returning home.

To implement all of aforementioned suggestions, executives should coordinate with nursing staff and promote employees' health and safety. Therefore it is necessary that executives specialized in such fields will be recruited in hospital departments of Health and Safety.

Consequently, mechanisms for prevention and management of occupational stress should act in coordination and focus early on minimizing the stressors, on one hand, and on enhancing psychophysical stability of nurses, on the other (Pateraki, et al, 1995).

It is essential to reorganize work environment (in its broad sense) and remove as many as possible stressors, along with training of staff in ways with which they can manage stress and achieve better adjustment. All these should be coordinated by employers and take place within the workplace. This interest from employers' part should be sincere and visible, in order to promote employees' health and safety.

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