

**REVIEW PAPER****Nursing staff under heavy stress: focus on Greece  
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**Abstract**

**Background:** Current global financial constrains place a burden on the development of health care services worldwide. Although nurses are the backbone of any health establishment, they seem are under constant occupational stress which varies from country to country.

**Aim:** This paper aims to present and analyze critically the key stress factors on contemporary nursing.

**Method:** A strategically planned four-step literature review was used focusing on identifying key stress factors in selected papers.

**Results:** The refining process identified 26 key references which were analyzed and tabulated. These revealed areas of concern such as: insufficient work recourses, poor communication with superiors, dissatisfaction with psychosocial work environment, lowering levels of education achieved and pay, split-shifts and prolonged night shifts, high demanding tasks, verbal abuse, mobbing and antagonistic attitudes in work place and poor organization at work.

**Conclusions:** A number of intervention strategies to avoid excess stress are presented which include: improved education of the workforce and awareness building; assessment-focused interventions; therapeutic counseling; skill-building and reorganizing the work environment.

**Key words:** occupational stress, workplace stress, nursing, stress management, anxiety, shift work.

**Introduction**

The word stress has its origin in the Latin word *stringere* - to draw tight. In the 17<sup>th</sup> century the word was used to describe affliction and hardship. The meaning of the word later included the concepts of pressure, strain or force. Today the description of stress includes an outside stimulus and the person's response to it.

Several studies have focused on the possible relation between stress, illness and different ways people respond to it. These studies distinguish the various aspects of stress which

a person may face in life, e.g. stress at home, in personal life or at work. This review focuses on stress at work, with particular emphasis to the nursing profession, in an attempt to explore possible management strategies that may decrease it (Golubic et al., 2009, Lu et al. 2009).

Edward and Burnard (2003) classify stress in the workplace as "occupational stress". The term refers to the pressure a person experiences due to work demands or problems which may lead to illness or 'burnout'. Recent research explores the agents that may be responsible for stress and the

effects of exposure to stressors for a person or organization. The problem affects not only the quality of services offered but also the psychology of the staff, driving employees to depression, absenteeism, or job resignations causing increased staff turnover with serious financial implications for an organization (Wykes & Whittington, 1999).

In the UK, occupational stress is estimated as the second major work-related health problem (after disorders of the musculoskeletal system) and absenteeism - due to stress related sickness - is estimated to cost £4 billion annually (Gray, 2000). Therefore, attention has focused on the development of stress-coping strategies in order to enable people to cope successfully with it. Considerable effort has been given to the identification of external stressors which may be responsible for the problem.

The opportunity to identify stressors and prevent potential work related health problems through innovative management can be a valuable investment in the care of human resources. As Murphy (1999) notices in the past decade restructure of work systems design the human element has been largely ignored and this should change.

### ***Aim***

The aim of this discussion paper is to analyze critically the national and international literature in order to identify main stress factors for nurses within the contemporary Health Care Systems and propose pragmatic approaches.

### ***Method***

A Reverse Pyramid Strategic Framework for the Literature Search (figure 1) was followed through a series of four consecutive steps. First, a systematic review of research papers was conducted. The search strategy included research findings within the last two decades as this was a phase of fast growth in IT development. The following key words were used: stress, anxiety, nursing, workplace/occupational stress, stress management, shift work. These were used in combinations and cross referenced where appropriate. The Cumulative Index to Nursing and Allied Health Literature (CINAHL), the National Library of Medicine's premier bibliographic database

(Medline) and the Electronic Library Information Navigator (ELIN) databases were used. Relevant 'grey' literature was also explored in order to set a framework of working definitions.

The second step was to check for double referencing and repetitions whereby the initial references were reduced to 71. The third step involved a systematic appraisal to achieve data saturation by a perusal of the main stress factors related to the nursing profession as identified in key references. The fourth and final detailed step was zooming in to specific references that entailed the key stress factors. These were subsequently selected for analysis and tabulation in a table. This process revealed a final 26 papers of close relevance and value.

### ***Results and Discussion of the methodology***

A resume of the main stressors for the nursing profession is presented in table 1. It can be seen the most common complaints are as follows: Carson & Kuipers' model (1998) investigated factors that may bring about change to the work environment and provide a classification of the major sources of stressors and classify sources of stress into three groups:

1. Specific occupational stressors which vary according to the unique problems or strains that each professional group faces (e.g. changes in the health service may be a major source of stress).
2. Stressors that are derived from major life events.
3. Minor stressors that obtain power and can affect the individuals as they accumulate.
4. Murphy (1999) suggested that actions which aim to eliminate stressful job characteristics or conditions can be defined as organizational stress interventions. These can be classified as:
  5. *primary prevention* - which includes role clarification, increase of autonomy or increase of the control which employees have to reduce work overload
  6. *secondary prevention* - help workers develop coping skills as a means of handling management stress
  7. *tertiary prevention* - special assistance programmes i.e. the treatment of workers who suffer from stress related disorders

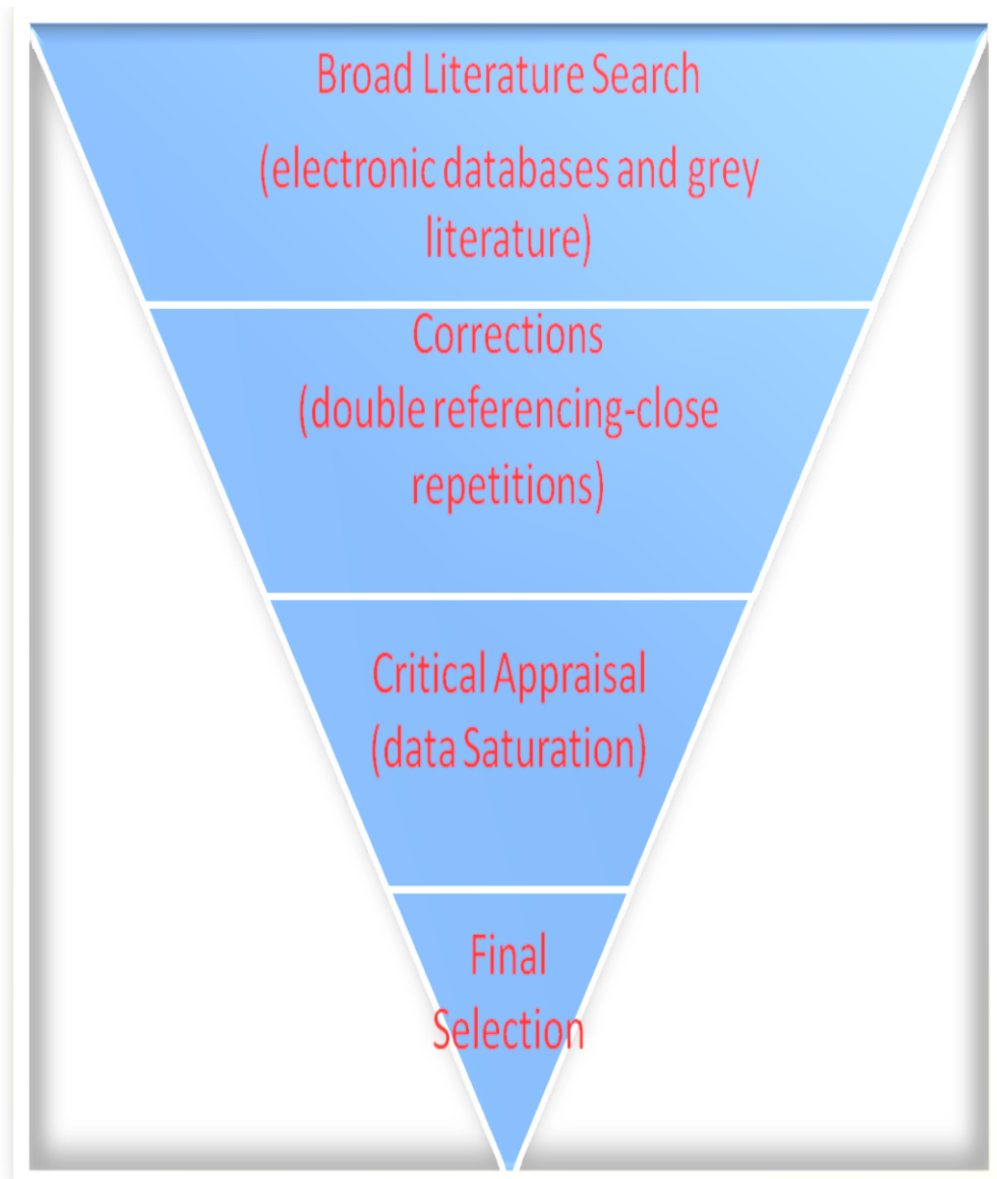
**Figure 1: Strategic framework for literature search**

Table 1: Stress factors concerning nurses

Author(s)	Year	Main Stress factor	Other Annotation Points
Apker et al.	2005	communication with superiors and emotional work	strict hierarchy and professional oppression
Bégat et al.	2005	dissatisfaction with psychosocial work environment	collaboration and good communication, job motivation, work demands
Carson & Kuipers	1998	insufficient work recourses	leading to poorer practice
Coomber & Barriball	2006	level of education achieved and pay	high turnover, intent to leave, and patient adverse outcomes
Dellve et al.	2009	conflicting legitimacy principles	when organizational procedural or consequential legitimacy norms are in conflict with the professional's own values
Edwards & Burnard	2003	split-shifts and night shifts	worst scenario: afternoon-morning –night shift
Edworthy	2000	isolation	form of mobbing
Golubic et al.	2009	high-stress departments and situations	e.g. ICU
Gustafsson et al.	2009	anxiety	burn-out, openness to change
Hardy & Barkham	1999	demanding tasks	medication and other errors
Harris	2001	threat to professional status	professional development
Jones et al.	1997	insufficient number of coworkers	unable to delegate
Langelaan et al.	2006	personality traits	neuroticism and negative view of oneself
Lu et al.	2007	low educational level is an influencing factor on nurses' views and experiences of their working lives	hospital nurses' positive feelings regarding their working lives may be influenced by developments in the health care system
Lützné et al.	2010	'mobbing'	from co-workers and superiors
McNeely E.	2005	working conditions and low locus of control	organizational structures to achieve magnetism status in order to attract and retain nurses
Murphy	1999	inappropriate staff mix	working with too many low trained or even untrained co-workers
Pauly et al.	2009	moral distress	infiltrating the working environment rather than the individual
Payne	1999	shift work	sleep disturbance and other physical symptoms
Powell & Enright	1993	exclusion	form of mobbing
Rick et al.	2002	poor organization at work	hospital management needs to improve organizational factors and resources
Rowe & Holly	2005	verbal abuse	mainly from co-workers
Sutherland & Cooper	1990	low staffing level	physical stressful environment
Sveinsdóttir et al.	2006	low job satisfaction	supportive programmes should include sequential and strategic systems, mentoring, reflective dialogue and feedback and decision-making policies
Wykes & Whittington	2000	patient assaults on nurses	abuse: verbal and physical from patients and relatives leading to post traumatic stress disorder
Yildirim & Yildirim	2006	antagonistic attitudes in work place	high level management harassment

Organizational changes which seek to remove stressors or eliminate occupational stress are complicated as such their intervention usually targets individuals or small groups. Nevertheless, work environment can create stressors that are in close relation to the organizations' layout and design (Payne, 1999). Although the introduction of organizational changes requires the provision of well considered programmes and many resources, this is essential if the aim is to reduce effectively the negative impact of stress. Wykes and Whittington, (1999) mention that the workforce may be treated as totally responsible for its own stress.

Organizational change need not always be complex. It can include anything from childcare facilities to ergonomic solutions (improvement of lighting or equipment) that will create a more supportive environment for the workforce and reduce strain. There is evidence (Rick et al, 2002) that high levels of social support can protect against the negative effects of stress.

Sutherland and Cooper (1990) state that *educational programmes* can be used as a preface for more intensive interventions. These programmes aim to make employees aware of the relationship between stress, illness and personal behavior. They identify stressors in personal or professional life which impact on a person's psychological or physical state. The techniques to bring about alternative behaviors and coping styles that help in stress management are shown to be effective. Furthermore, with educational stress - relief programmes it is possible to reach large groups of people at a time (Golubic et al., 2009).

Another type of stress management is the *assessment - focused programmes* which are directed at small groups and aim to identify individual stress profiles. In order to highlight a person's weaknesses or skill deficits much of the information obtained in such sessions may be confidential and should be treated as such. Hence, the privacy of the individual to decide whether to share his/her personal experiences must be protected. However, according to Sutherland and Cooper (1990) employees often have a desire to know how they compare with their colleagues and in some cases with other people in general so they often participate openly, seeking feedback and group discussion. It should be noted that it is usually more productive to have homogeneity in the group, i.e. to include people of equivalent ranks. Some stressors may arise from tense relationships with superiors so in such cases it would be more effective not to include managers and employees in the same group.

A systematic review of stress and stress management interventions for nurses conducted

by Edwards and Burnard (2003), suggest that the most effective stress management techniques are:

1. stress management workshops
2. training in therapeutic skills
3. training for effective behavioral changes
4. relaxation techniques

Powell and Enright (1993) describe four main stages which are essential for a stress management group. The first step in the therapeutic intervention is to provide information and educate the individuals (employees) about stress. The authors point out that only when somebody is aware of a problem and its implications for his/her personal or professional life is a correct reaction possible. The second step should be the teachings of coping skills which can help the employees feel that they are in control of the problem and of their life in general. The next step should be the setting up of specific behavioral assignments that the therapists involved consider to be helpful for the members of the group. The last one is to meet other people with similar problems who can offer the employee the chance to feel less alone and different. The sharing of problems and experiences has been proven to encourage improved coping of stress and anxiety.

Stress management techniques which aim to develop effective coping skills should not be based on the belief that a situation in itself is the main stressor but rather, the way a person perceives it. Therefore, the goal is to relearn ways of viewing situations with the use of reasoning and logic and in order to form correct reactions. This helps to deal with attitudes that previously proved to be harmful to the person and stemmed from past habits. A person's ability, experience and personality drive them to appraise an environment as threatening or challenging. If a person feels that they can cope with a situation and take positive action, this success results in personal health and well-being. An example is the hyperactive workaholic who seeks demanding tasks as a welcome challenge (McNeely, 2005).

In contrast when a person feels unable to cope with a situation, they often apply ineffective coping strategies which increase stress along with feelings of failure and anxiety which can have serious negative physical and psychological outcomes. Furthermore, Payne (1999) argues that the exposure to stressors for lengthy periods of time can have serious consequences for the workers' long-term health and well-being. Different individuals under the same work conditions report low or high levels of stress which indicates that personal factors influence the way individuals react to stress agents. According to Carson and Kuipers (1998) basic personal

characteristics that help an individual to react better include: high self-esteem, hardiness and ability to cope effectively, personal control, emotional and psychological stability (proper use of release mechanisms).

A fundamental rule of health promotion is that prevention is better than cure. The screening of staff to identify individuals at risk can be considered as a stress preventive measure. Although the feasibility of this option is arguable, clearly the acceptability of such intervention requires the commitment of managers, employees and trade unions. As with all the other strategies that are aimed at the workforce, this one also needs the credibility of well-planned policies and the participation of senior staff. A responsible commitment of senior management, departmental directors and key service staff is necessary for the successful implementation of any stress management policy. Studies suggest that some factors such as the manager's interest and commitment or a supportive work environment can contribute to successful interventions (Jones et al, 1997).

Psychotherapeutic interventions have been expressed in two forms. Firstly, stress management training which is described earlier as prevention and secondly, counseling. The duration of the former may vary from one hour sessions to more intensive and frequent ones. The context includes training in relaxation methods and also in related skills such as time management and problem solving. In addition they may contain self-evaluation and goal setting (Hardy & Barkham, 1999). Counseling interventions are based on a productive relationship between the employee and the counselor who aim to bring about change and to resolve the client's problems with discussion.

Research on the effectiveness of workplace counseling suggests that it is financially viable for organizations as found in a study of 2,500 participants in the USA Department of Health and Human Services for the evaluation of such interventions (Wykes and Whittington, 1999). For each dollar spent on counseling about seven dollars were saved. Usually individual counseling services are the first choice for workplace stress interventions. In the authors' opinion this is because they fit well into the philosophy that stress is an employee problem, not a management problem. Besides, such interventions do not require major changes in the organization's structure and function.

As a strategy, at the individual level Sutherland and Cooper (1990) suggest that the employee should keep a stress diary recording incidents, demanding situations or work relationships that he

or she experienced as distress. It is worth devoting personal time to this task in order to analyze when, where and why they felt tensed. With this method the individual gains insight into the characteristics of stressors (either situation or person) and can consider what should be the best response. Moreover, the counselor can plan alternative ways of dealing with stress or may identify behavioral changes which will help. Keeping a stress diary can become a rewarding habit; the decision to change or become more responsible for in life can be difficult but is worth the effort in terms of personal satisfaction and effectiveness.

The choice of possible effective interventions in a specific work context should mainly consider existing socio-cultural situations. These are of major importance as they influence not only the way people perceive their work and membership of particular professional or organizational groups, but also the possibility of bringing about change (Daniels et al, 2002).

In most EU countries, employers have a legal duty to assess stressors that might be dangerous for the health - including mental health - of their workforce in order to provide a safer environment. As the National Health Service is the largest British employer, since 1998 the Department of Health has recognized this responsibility and now includes care of mental health of its employees (DoH, 1998). Educating organizations about the nature of the problem and its relation to productivity and health is of major importance and should be a goal for government policy.

According to Edworthy (2000) poorly managed stress can lead to various health problems including depression, headaches, hypertension, irritable bowel syndrome and coronary heart disease. In addition, the financial implications are important (Harris, 2001) and this can become a major impetus for the employers to try to reduce levels of work-related stress. The Health Education Authority (1998) states that health management should be brought to the centre of business planning. Hence a policy for the health protection of workers should become an integral part of the health and safety policy of any organization (Edwards and Burnard, 2003).

There are many studies evaluating stress management interventions in the hospital workplace settings and included the work redesign in their strategy. Studies have indicated significant improvement in workers satisfaction and stress reduction (Abts et al, 1994; Apker et al., 2005). Moreover, staff turnover was reduced by 11% and there was a 66% decrease in unplanned single-day absenteeism (Murphy et al, 1994). However another study, showed that a new design did not result in the envisaged enrichment of the nurses'

job (Molleman & Van Knippenberg, 1995). Although more control was given to nurses, unexpectedly the nurses' performance and satisfaction was low indicating an inappropriate strategy.

Research on the impact of socio-technical interventions and the interventions to work organization on the well-being and health of a workforce showed positive results (Rick et al, 2002). Those that aimed to reduce workload succeed in improving mental efficiency, job satisfaction and mental health. Changes to work organization (e.g. task identity) increased staff motivation and performance.

In the opinion of Wykes and Whittington (1999) a basic problem with studies for the evaluation of such interventions is that many did not employ a comparison group. Also the research process itself may change the employees' perception and behavior with beneficial effects on organizational function. Consequently there would be an effect on the study's participants and also on the results. Hence the importance of control groups in such studies.

The same authors argue that it is still not clear which interventions might tackle certain problems and which policy commitments would translate into effective interventions. In addition, Edwards and Burnard (2003) notice that although there may be in-depth knowledge of the sources of stress at work and ways in which it can be measured, there is a lack of integration and use of these results into practice. Thus there is a need to put theory into practice and hence to conduct research in order to assess the impact of stress management interventions and its effectiveness.

Care must be taken to define concepts that have similarities and can cause confusion. In a study on fatigue where researchers used the same dependent and independent variables as used in stress research, it was found that although fatigue is an agent of stress, the clarification of such concepts and the use of specialized measurements and scales for such studies are essential in order to have credible results (Bogat et al., 2005).

According to Murphy (1999) the main reason for the scarcity of studies into organizational stress intervention is that implementing them in a work setting disrupts current work schedules or job routines and such studies are seldom able to get managerial approval. Another reason is the uniqueness of each organization depending on its human resources and function. Hence there is no "prescribed" solution that would be effective universally. This also points to the need of diagnosing stress in a specific workplace (through questionnaires and interviews or indirect observation etc) before applying a stress

management programme (Edwards & Burnard, 2003). This approach could help to identify factors that are perceived by the workforce as more hazardous and requiring more attention.

Such findings could be the base for the prioritizing of interventions (Daniels et al, 2002). The awareness of the "locus of control" of workplace stress and the characteristics of demands that the staff face could form the base for well-structured interventions. Such plans presuppose respect of the organizational environment and any proactive management programme and should also guarantee its prospective effectiveness. Attention should also be paid to Parkes & Sparkes's recommendation (1998) that organizational interventions should avoid introducing too many simultaneous changes. Focusing on one or a few stressors, rather than bringing multi-component interventions, can guarantee a steady and better considered process.

Occupational support systems also need to be checked. In the opinion of Wykes & Whittington, (1999) treatment of stress is carried out mainly by family members, friends or social workers, most having no related education. However, their support helps motivate employees that suffer from distress to 'keep going'.

This raises the question of how occupational support systems could be set up to help. Increased awareness by the nursing profession of such a need together with a clear design and plan can be a step in the right direction. Finally, in the opinion of Hardy & Barkham (1999) all stress management interventions "sit between clinical and occupational psychology theories and practice". However, this clinical literature review indicates insufficient evidence of which interventions are more effective in limiting occupational stress.

Many efforts have been made to define and 'measure' factors that cause stress to nurses. However, some researchers have observed that staff nurses, despite being exposed to shared stress factors within the same ward, still react differently to these factors. Reactions can vary from being tough-minded and 'carrying on with the job' to taking time off due to burn-out. Some studies indicated that despite the challenging demands of the nursing work environment, personality traits such as anxiety, openness to change and low self-esteem can be a major influence on whether nurses get stressed or even over-stressed to a point of burn-out (Gustafsson et al., 2009; Langelaan et al, 2006).

### **Conclusions**

It is clear that there is no agreement on a right way to deal with the problem of occupational stress.

The aim of this paper was to uncover the main stress factors affecting nurses and to investigate theories which might illuminate techniques to solve the problems. However, a number of intervention strategies have been presented: education of the workforce and awareness building; assessment-focused interventions; therapeutic counseling; skill-building or change in the work environment; and an updated organizational design are the most relevant.

The next stage was to translate the relevant studies and theories into practice recognizing the importance of respect for human resources and the value of preventive health measures through well considered changes to the work environment. The nurses' satisfaction within their psychosocial work environment is reflected in many factors which include: high job stress and anxiety, poor relationships with colleagues, inadequate collaboration, poor communication, insufficient resources, strenuous physical demands, low job motivation, unrealistic work demands and poor professional development opportunities.

When stress problems remain ignored, this can spiral individuals into unhealthy lifestyles which have profound effects on their general health. Such negative counter mechanisms include: the regular consumption of junk-food, strenuous dieting or overeating leading to obesity, poor fluid selection, social withdrawal, medication abuse, nicotine or alcohol abuse, low physical activity and poor sleeping patterns. This leads to further job dissatisfaction and in some cases a desire to drop out. Nurses under constant and heavy stress are likely to get disillusioned i.e. to move away from their initial philanthropic and altruistic drives into despondency.

Solutions, with particular reference to Greece, should include a multi-level approach ranging from an increase of centrally controlled staffing recruitment, to local, in-house professional help and support services, radiating to supportive family and home environments.

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