

# Sources and effects of Work-related stress in nursing

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## Abstract

**Introduction:** The working environment is one of the most important recourses of occupational stress. The importance of management of occupational stress is recognized, besides all by Occupational health and safety since it has been found to be related not only with loss of productivity and loss of working hours but with the arousal of diseases and occupational accidents.

**Purpose:** The aim of this systematic review was the examination of the sources and consequences of occupational stress on nurses' adequacy, productivity, efficiency.

**Material -method:** A systematic review was made in "European Agency for Safety and Health at Work", "National Institute for Occupational Safety and Health (NIOSH)", "Job Stress Network" web sites for various publications and abstracts around the exact theme and the "Occupational and Environmental Medicine Journal" using as key words «stress, occupational stress, and Nursing».

**Results:** A number of aspects of working life have been linked to stress. Aspects of the work itself can be stressful, namely work overload and role-based factors such as lack of power, role ambiguity, and role conflict. Threats to career development and achievement, including threat of redundancy, being undervalued and unclear promotion prospects are stressful. Stress is associated with reduced efficiency, decreased capacity to perform, a lack of concern for the organisation and colleagues.

**Conclusions:** During last decade there has been increasing recognition of the stress experienced by hospital nursing staff . Although some stressful situations are specific to a particular type of hospital unit, nurses are subject to more general stress which arises from the physical, psychological, and social aspects of the work environment. High levels of stress result in staff burnout and turnover and adversely affect patient care. Interventions that are targeted at sources of occupational stress seem to be required in order to support nurses.

**Keywords:** Occupational stress, consequence, productivity

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## Introduction

Stress, up to a certain point, will improve people's performance and quality of life because it is healthy and essential that they should experience challenges within their lives<sup>1</sup>, but if pressure becomes excessive, it loses its beneficial effect and becomes harmful<sup>2</sup> since it is the reaction of people under pressure or other types of demands placed on them and arises when they worry that they cannot cope<sup>3</sup>.

However, it is recognized that negative events do not always trigger psychological distress, which arises only when imposed demands are perceived to exceed ability to cope<sup>4</sup>.

It is important to recognize that stress is a state, not an illness, which may be experienced as a result of an exposure to a wide range of work demands and in turn can contribute to an equally wide range of outcomes<sup>5</sup>, which may concern the employee's health and be an illness or an injury, or changes in his/her behavior and lifestyle. This arises from a study that showed that three quarters of executives say that stress adversely affects their health, happiness and home life as well as their performance at work<sup>6</sup>.

Regarding the agencies, occupational stress poses a risk to most businesses and its results are financial ones either through compensation payments for stress-related injuries, or through the low productivity of the agency<sup>1</sup>.

Various factors are associated with occupational stress and studies indicate that, in addition to stressful factors intrinsic to nursing organizational management attributes influence work-related stress among nurses<sup>7</sup> and that sources of stress vary in both nature and frequency across nursing specialties<sup>8</sup>.

### *Theories on stress*

Stress is an imprecise term, which is usually defined in terms of the internal and external stressful conditions. McGrath<sup>9</sup> suggested that stress is caused when a person thinks that an environmental

condition threatens to stretch the person's capabilities, and if the person does so, he/she receives less rewards than the expected ones. Also, McGrath supports that if a person fears the future and has low self-confidence, stress appears, while Arnold and Feldman<sup>10</sup> suggest that stress is different from person to person depending on their reactions to changing situations. Williams and Huber<sup>11</sup> support that stress is caused when a stressful situation, internal or external, lasts for a long time and the person perceives it as a threat irrespective of it being so, indicating the relativistic characteristic of stress. A more general definition is proposed by French, Kast and Rosenzweig<sup>12</sup>, who believe that stress is neutral but when we exceed our limits or we are below them, burnout or rust out, respectively, are caused.

### *Causes of stress*

#### *Working environment*

In this field, Gray-Toft and Adderson<sup>13</sup> focused on specific stressful situations for nurses, which affect their work performance, when they developed the Nursing Stress Scale (NSS), identifying three sources of stress from: the physical, psychological and social environment.

The working conditions such as the wrong ventilation, lighting and the inadequate temperature levels are among the potential work-related stressors<sup>14</sup>.

Cooper<sup>15</sup> support that difficulties in coping with stress combined with psychological or emotional instability could lead to violence and there are several studies supporting that the healthcare workers - specifically nurses and clinic personnel - are especially affected by the risk of physical violence- particularly in the emergency rooms- which is a source of stress.

#### *Interpersonal relationships*

Blair and Littlewood<sup>16</sup> emphasized that work relationships are potential stressors. Two sources of stress in this field are the conflicts with co-workers and the lack of staff support. Another assessment showed

that lack of social support from colleagues and superiors and less satisfaction with the head nurses contributed significantly to the appearance of stress<sup>17</sup>, while the Health and Safety Executive identify the negative effect of lack of understanding and support from their managers, on workers' stress<sup>18</sup>.

#### Nature of nursing

In many cases someone becomes a nurse because they want to help people but when they are confronted with the reality of the job they soon realize that is not what they thought it would be<sup>19</sup> considering the nature of nursing tasks and the involvement with death and dying people<sup>20</sup>.

Healthcare institutions are different in size and nature, and nurses are confronted with different work tasks and working hours - nightshifts-, working conditions - understaffing and stress related situations - the suffering and death of patients<sup>15</sup>.

Another serious stressor is that the health professionals have always paid a heavy price concerning infectious diseases because due to the nature of their work they come into contact with biological dangers people<sup>21</sup> as they use sharp equipment like needles and through skin contact are exposed to the same active infection dangers as the patients by handling patients' blood and bodily liquids<sup>22</sup>. Except these, the chemical substances in the hospital along with the use of dangerous medication, such as those used in chemotherapy, expose nurses to health dangers<sup>23</sup>.

#### Organizational factors

Studies indicate that, in addition to nursing itself, organizational and management characteristics influence the stress nurses experience at work<sup>24</sup>. With regard to previous research, a large part of potential sources of stress for nurses appear to be organizational in nature including stress-generating nursing work situations, which can be of physical, psychological or social nature<sup>24,25</sup>.

Besides responses to patients' physical and psychological status, increased job demands, because of the use of sophisticated

technologies, competition among hospitals, nursing shortage, work overload, and lack of task autonomy and feedback, as well as reduced advancement opportunities, appear to be major determinants of emotional exhaustion<sup>26,27</sup>.

Occupational stress among nurses is associated with a variety of personal and institutional factors. For example, Lee and Wang<sup>28</sup> found that a high level of occupational stress is related to workload and responsibility, while for someone else workload is the best independent predictor of health and well-being status<sup>29</sup>.

#### Role characteristics

Since 1964 Kahn has recognized ambiguity and role conflict as stressful characteristics of the working role. Ambiguity can be defined as the lack of clarity concerning the employee's targets and duties, while role conflict as the conflict among professional roles<sup>30</sup>.

Stress in individuals or groups occurs when their situation is overly complex, ambiguous and unclear, as well as highly demanding regarding competence or when structural means to deal with the demands are not present<sup>31</sup>.

According to a study, the lack of opportunities to practice the professional role of nursing significantly contributed to the production of stress<sup>17</sup> which is consistent with the findings of a study done on 43,000 nurses in USA, Canada, England, Scotland and Germany<sup>32</sup>.

According to another study completed by Kahn et al.,<sup>30</sup> approximately 50% or more of the groups of nurses studied, stated that they could not either at all or to some extent practice the professional role of nursing, which might indicate that nurses experience a conflict between their expectations of their professional role and the reality of their work. This conflict is supported by the findings that too much work produces the greatest stress. Taken together, these findings might indicate a need to reorganize the content of nurses' work and give higher priority to the professional role of the nurse Germany<sup>30</sup>. These findings are consistent

with a study conducted in Greek Hospitals which showed that occupational stress of nursing professionals is connected with the wish to modify the professional role of nursing tasks and the reduced social acknowledgment of the profession<sup>33</sup>.

Marshal identified the home/work interface and fulfilling others' expectations for the role of the nurse as elements of potential stress related to nursing<sup>20</sup>.

A higher risk of the employees suffering a psychiatric disorder exists when employees are stressed because they need to resolve conflicting priorities, or have a lack of recognition. Helping people who experience major health problems, although personally rewarding, can be a stressful situation when patients are not cognizant of the efforts made by nurses to assist them<sup>18</sup>.

#### Individual characteristics

Researchers have also concluded that occupational stress arises from social arrangements that are partially determined by the organization of work<sup>15</sup> and the interaction between these organizational factors and the characteristics of individual workers<sup>7</sup>. In other words, occupational stress in nursing is to a great extent determined by how successfully each individual nurse copes with the job-related stress factors in his/her workplace<sup>17</sup>.

One of the greatest causes for nurses' stress is their lack of preparation in handling the emotional needs of patients which causes anxiety within the nursing staff<sup>17</sup>.

For example, Lee and Wang<sup>28</sup> found that a high level of occupational stress is related to working experience and education.

#### *Stress Consequences*

Stress can have far reaching consequences for nurses which is why stress management for them is so important, since occupational stress has been found to be one of the major work-related health problems for the workers<sup>34</sup> as well as one of the greatest forced cost for the hospitals<sup>32</sup>.

#### Problems in staff's behavior

Stress can have a significant impact on individual nurses and their ability to accomplish tasks and more specifically, poor decision making, lack of concentration, apathy, decreased motivation and anxiety may impair job performance creating uncharacteristic errors<sup>35</sup>.

All of the above can directly contribute towards absenteeism, decreased work performance, and ultimately, burnout. Nurses encountering ongoing stress are more likely to eat poorly, smoke and abuse alcohol and drugs, all of which can lead to negative health conditions affecting personal well-being errors<sup>36</sup>.

A strong negative relation between nurses' occupational stress and job satisfaction has been found, based on which growing occupational stress results in increased turnover rate, which causes more and more nurses to leave the nursing profession<sup>37,33</sup>.

#### Mental problems

Occupational stress and its consequences on nurses' behavior can create mental problems such as anxiety, depression, insomnia and feelings of inadequacy<sup>38</sup>.

Levi points out that the National Institute for Occupational Safety and Health lists psychological disorders among the ten leading work-related diseases or injuries and has reported to the World Health Organization that almost 75% of patients seeking psychiatric consultation face difficulties with job satisfaction and stress<sup>39</sup>.

#### Consequences on physical health

Interest in this area has been recently stimulated both by evidence that psychological factors influence immune function<sup>40</sup> and increasing recognition of the importance of understanding the role of stress and other psychological factors in the onset and progression of acquired immunodeficiency syndrome<sup>41</sup>.

Only a proportion of people develop clinical disease when exposed to an infection agent and severity and duration of symptomatology vary widely among those who do become ill. The reasons for this

variability in response are not well understood and the possibility that psychological factors play a role has received increased attention<sup>27</sup>.

Stress-related physical illnesses include heart disease, migraines, hypertension, irritable bowel syndrome, muscle, back and joint pain, and duodenal ulcer<sup>38</sup>, whereas psychologists who are interested in the role of psychological factors in human diseases have focused primarily on coronary heart disease and cancer<sup>42</sup>.

## Conclusions

The review demonstrated that a great deal is known about the sources of stress at work, about how to measure it and about the impact on a range of outcome indicators. What was found to be lacking was a translation of these results into practice, and research that assesses the impact of interventions that attempt to moderate, minimize or eliminate some of these stressors.

Therefore, it is important to understand how work-associated stress affects nurses, and what factors in their working environment cause the greatest burden. It is also of great importance to gain more knowledge about nurses' working conditions, occupational stress and job satisfaction-knowledge that might be used to decrease their occupational stress and increase their job satisfaction. In an effort to contribute to the development of such knowledge, the Icelandic Nurses' Association (INA) collaborated with the Institute of Nursing Research at the University of Iceland on a survey on workload, working conditions, occupational stress, health, and job satisfaction among Icelandic nurses.

However, it is not only organizational factors and tasks that cause occupational stress. The interaction between organizational factors and the characteristics of individual workers also play a significant role. Because of different working conditions, education, social status and the autonomy of nurses in different culture, it can be assumed that occupational stress

differs between cultures and countries. Therefore, there is a need to examine work-related stress among nurses in different countries, and the findings of such studies must be interpreted from the perspective of the socio-cultural surroundings in which they are conducted.

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Sources of stress in nursing are multi-faceted. Nursing is known to be emotionally, physically and intellectually demanding work (Rowe, 2003). Nursing is emotional work where compassion is expected, dealing with suffering is common and reports of interpersonal conflict, including verbal abuse, between colleagues is common (Cohen-Katz, Wiley, Capuano, Baker & Shapiro, 2005; Rowe, 2003; Repar & Patton, 2007; Rowe & Sherlock, 2005). The purpose of this study is to describe the effect of job-related stress on the job performance of hospital nurses, as well as the effect of co-workers social support on the stress-performance relationship. The literature is organized into four sections. The first section describes the conceptual framework.