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Opinion

The Effects of Musculoskeletal Disorders on Health Care Team

Nick Bakalis*

Department of Nursing, T.E.I. of Western Greece (Patras), Greece

***Corresponding Author**: Nick Bakalis, Department of Nursing, T.E.I. of Western Greece (Patras), Greece.

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Health care team are one of the largest workers in Europe. Musculoskeletal disorders are the most widespread and debilitating occupational illness to health care workers. The frequency of musculoskeletal disorders, particularly back pain, is increasing dramatically in health care team compared to the general population [1].

Musculoskeletal disorders lead to problems that threaten the adequacy and integrity of staff. More specifically, they affect day-to-day nursing activities such as:

- Carrying heavy objects (lifting, pulling and pushing)
- Moving patient to the bed
- Help patient getting out of bed
- Transferring patient from bed to chair
- Supporting patient while walking
- Providing nursing care

The most significant factors of musculoskeletal disorders are standing, walking and inappropriate body postures [2]. Working in intensive care units, surgery, orthopedic, geriatric and medical wards also increases the risk of back pain [3].

Another important factor influencing the development of musculoskeletal disorders is the absence of an ergonomic working environment [4]. Buildings usually are not in good condition, and the workplace does not have the instruments and materials to ensure that staff can safely and professionally practice their activities.

The most common diseases associated with the nursing profession are back pain, neck pain, sciatica, intervertebral disc herniation and kyphosis [5]. The main symptom of musculoskeletal disorders is usually pain accompanied by stiffness, swelling and reduced functionality of the affected area [6]. Additional symptoms include weakness, distortion, local sensitivity, spasm and reduction of the movement range [7].

The risk factors for musculoskeletal disorders are distinguished into two major categories: personal and occupational-ergonomic factors. More precisely, the personal factors include the individual characteristics (age, sex, anthropometric characteristics) and the lifestyle of health care workers [8] (physical condition, sedentary life, smoking, stress and poor eating habits). Occupational-ergonomic factors have been identified as most important for the development of musculoskeletal disorders (carrying heavy objects, moving and transporting patients, providing patients care and the non-use of lifting equipment or other transporting or lifting aids).

The necessity of reducing injuries to health care team has forced several organizations to "react" in order to reduce musculoskeletal disorders. The American Nurses Association (ANA) recommends the staff to reduce (manual) patients lifting when this is feasible. In particular, they encourage nurses to support policies "not lifting with hands" and "not lifting without help" at their workplace [9].

The nursing profession is among the first ten most dangerous occupations for musculoskeletal disorders. Nurse's injuries from the musculoskeletal system have an impact on personal and professional level [10]. The cost of musculoskeletal disorders in health care team can be divided into direct and indirect costs [11]. Direct costs include compensations for workers and for rehabilitation services. On the other hand, sick leave and absences from work are the indirect costs. Nurses suffering from spine disorders are absent from work 7.46 days a year [12].

It is generally accepted that precautionary measures should be applied to reduce musculoskeletal disorders. For example, the availability of electrically adjustable height beds reduces physical fatigue. Another measure to prevent musculoskeletal disorders could be the employment of nursing staff and the maintenance of nurses' weight in normal levels. In addition, the (compulsory) education of health professionals is of major importance either through training programs and/or by teaching specialize courses at undergraduate or postgraduate level. Finally, it is important to construct protocols for ergonomic handling, which all health care professionals should be used.

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