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Guest Editorial

Injuries and Prevention in Health Care Providers

I was recently at a week-long training program attended primarily by occupational and physical therapists, with a few physicians and chiropractors. A group of strangers visiting an unfamiliar city, spending 40 hours together within the same four walls tends to foster many 'get-to-know-you' conversations while completing activities and practicing skills. Maybe it was the focus of the seminar on evaluating functional capacities, or maybe it was just a natural conversation; but I discovered in that small group of 20 health care providers that more than 75% of us were experiencing discomfort, pain, or musculoskeletal diagnoses due to work-related activities. Many of the individuals had been working with pain and discomfort for numerous years. While some of us had sought medical care, even surgery, others continued to work through the pain and discomfort without seeking treatment.

In light of the high rate of work related pain and discomfort, this special issue is timely in its discussion of injury and discomfort among health care providers. As health care providers, we tend to underreport and minimize our injuries [3,4]. The annual report from the Unites States Occupational Safety and Health Administration (OSHA) noted that injuries among health care workers increased by 6% from 2012 to 2011, indicating there is a need to focus attention on prevention in these occupations. The intent of this edition is to highlight the general problems faced by a subset of health care providers and provide possible administrative, ergonomic, and educational options to help reduce these health concerns.

The first two articles, while general in focus, provide a foundation for understanding injury risk factors in the working population. *Ugbolue and Nicol* provide a biomechanical analysis of the physiology associated with repetitive strain injuries in the industrial population. In addition, it is important to consider personal and environmental factors as they relate to health. *Erlandsson, et al.* provide a broad analysis of the variety of factors that must be considered when evaluating health in the working population. The articles in this issue provide information on the impact of all of these factors as they relate to health care providers.

Nursing assistants are some of the most frequently injured workers in health care. Direct care workers such as nursing assistants provide 80% to 90% of care in hospitals, nursing homes and home health [5]. According to the most recent report from OSHA, health care support occupations account for the majority of injuries within all health care fields. *Olson and King* investigate physiological changes due to the daily work load on nursing assistants by tracking heart rate and respirations. To limit injury among nursing assistants in home health, *Czuba, Sommerich, and Lavender* posit that implementing administrative controls through scheduling may be one strategy for reducing stress due to pain and fatigue.

Previous studies have indicated that up to 90% of sonography professionals work with musculoskeletal pain; nearly 75% of those individuals indicating having discomfort in the shoulder region [2]. Roll et al. evaluate the factors that contribute to shoulder discomfort among diagnostic medical sonographers and vascular technologists. It is likely that sustained shoulder adduction and other positional factors are the primary reason for discomfort in these professionals. In her article, *Coffin* evaluates the use of an assistive vertical arm support device as a means to reduce muscle activity in the shoulder muscles of these professionals.

The final providers highlighted in this issue are rehabilitation providers. Occupational and physical therapy professionals frequently provide advice to patients on injury prevention; however, similar to sonographers, these professions have musculoskeletal injury rates up

to near 90% [1]. As with many professions, occupational therapists and physical therapists tend to practice in a variety of settings. The expectations and stresses in these varied environments lead to numerous different types of work-related health concerns. *Darragh, Campo, and King* provide an overview of the specific activities that are associated with injury in these professions across various practice settings. Manual therapy techniques and patient transfers accounted for the majority of musculoskeletal injuries in these professions. Because patient handling leads to such a high rate of injury, *Slusser, Rice, and Miller* completed a survey of educational programs to determine if and how future rehabilitation professionals are prepared to avoid injuring themselves.

Reflecting back on my experience at the training seminar, the common themes across all participants was of accountability and putting the patient before the provider. The healthcare providers at the seminar stated, "I should've known better," "It was completely my fault," and "I didn't want the patient to be uncomfortable." In my clinical practice I recall having an optometrist with severe neck and back pain who continued to state that she didn't want to make the patients lean forward to sit in an uncomfortable position, instead she thought it best that she lean forward and be uncomfortable while completing the examination. It wasn't until I reminded her that the patients would be in that position for no more than 2 minutes of their entire day, whereas she would be in that position for 2 minutes for every patient she saw, every day of the week, every week of the month, and every month of the year.

As this anecdote suggests, we have a unique opportunity to change the culture in which we practice as health care providers. Changing the culture of any professional environment presents with many challenges, but it may begin with proper education of students. The article that closes out this issue by *Stark, Hazel, and Barton* provides food for thought related to opportunities to educate health care students such that we might begin to change the culture of professional practice.

It was a distinct pleasure to compile this special issue of *WORK* as a guest editor. I hope that this issue provides a foundation for future research and clinical practice for prevention, assessment, and rehabilitation of injuries in health care providers.

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