

Creating Healthy Work Environments VIRTUAL 2021

Psychological Factors and Work-Related Musculoskeletal Disorders in Nurses: A Comparative Secondary Analysis

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Purpose: According to the Bureau of Labor and Statistics (2019), healthcare workers to include nurses have high rates of work-related musculoskeletal disorders (WMSD). The American Nurses Association [ANA] (2018) states “42% of the nurses feel they are at risk for injury” while “53% feel musculoskeletal pain”. Additionally, Francis and Dawson (2016) reported of the nurses surveyed in the ANA 2017 Health Risk Appraisal “13% have sustained a debilitating musculoskeletal injury” (p. 38). The human body is a major work-related tool a nurse uses every shift to provide care to patients. Once a WMSD occurs, the healthcare provider should evaluate holistically the physical and psychological effects on the nurse (Pipkins, 2015). Physical effects have been well researched (Richardson et al., 2018). However, the psychological effects of WMSDs reported in research have been lacking. This secondary analysis is to compare the characteristics and demographics of nurses with and without WMSDs and the relationships among psychological factors of pain, personality traits, and coping strategies from an original study and the replication study.

Methods: This comparative secondary analysis utilized the original study conducted in 2015 and the replication study in 2019. Both studies utilized a descriptive cross-sectional design with a convenience sample of licensed nurses in the American Nurses Association and Sigma Theta Tau International via an online survey. Both studies collected data using multiple instruments: demographics, WMSD History, Numeric Pain Rating Scale, Coping Strategies Questionnaire- 24, Fear Avoidance Belief Questionnaire, Eysenck Personality Questionnaire- Brief Version, and Centers for Epidemiological Studies Depression Scale.

Results: Nurses with WMSDs and without WMSDs were evenly distributed within the groups of both studies. Both studies revealed most of the participants were female, Caucasian, married/partnered, and within the range of 50-59 years old. Both studies calculated the exact same average of reported pain intensity. A flipped difference was noted in the levels of neuroticism and extraversion. The original study revealed a significant difference between the personality traits and depression of the nurses with and without WMSDs that was not found in the replication study. WMSDs to the back region was the most common in both studies. Both studies found a moderate to strong positive correlation between depression and neuroticism/catastrophizing.

Conclusion: The comparison of the two studies validated some of the same correlations with personality traits and coping strategies. The data supports the development of more holistic interventions to assist nurses with WMSDs. Further

research is needed to develop specific interventions to decrease the level of fear nurses report of sustaining a WMSD.

Title:

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Keywords:

Nurses, Psychological Coping Strategies and Work-Related Musculoskeletal Disorders

Abstract Summary:

Work-related musculoskeletal disorders (WMSDs) continue to occur at a high rate in nurses despite various interventions implemented for safe patient handling.

Psychological effects of a WMSD sustained are understudied. This study compared the demographics of nurses with WMSDs and the relationships among psychological factors from an original and replicated study.

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Author Summary: I am currently working toward my BSN at the Dishman School of Nursing. While studying at Lamar University, it has been my honor to be a Summer Undergraduate Research Fellowship recipient (2018, 2019, 2020). The grant research focused on the discovery and establishment of a conceptual model of a nurse with a work-related musculoskeletal disorder. Further research was completed on the psychological factors of a nurse who has sustained a work-related musculoskeletal disorder.

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Author Summary: Dr. Pipkins has a passion for complementary and alternative medicine (CAM) practices. Mixed with the desire to educate or learn holistic practices globally, she has ventured out through study abroad programs at the university level to achieve the goal. Dr. Pipkins has been the project director for several doctoral, graduate student EBP projects, Summer Undergraduate Research Fellowship grant winners, and mentored undergraduate research studies regarding expressive art, aromatherapy, and CAM.