

## Combination of Work and Family Demands Correlated with the Severity of Wrist Musculoskeletal Disorders among Nurses

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**Abstract :** Objective: Nurses represent an important occupational group frequently affected by wrist musculoskeletal disorders (WMSDs) due to a heavy workload, working shifts, poor posture, giving shots, making beds, lifting patients, bending their waist and insufficient rest time every day. However, lack of research reported nurses whether workload in household correlated with the severity of WMSDs. Methods: 550 nurses from a hospital in Taoyuan were interviewed using a modified standardized Nordic Musculoskeletal (NMQ) questionnaire including the demographic information, workplace condition and nine body parts of musculoskeletal disorders. Results: 17.9% and 23.9% of severity and symptoms in WMSDs among nurses with children were significant higher than among nurses without children (12.4% and 15.9%). Based on multiple logistic regression models adjusted for age, work duration, job title and body mass index (BMI), we found that heavy workload in hospital had higher odds ratio (OR) of the severity and symptoms of WMSD among nurses with children (OR= 8.67 and OR= 4.30,  $p<0.05$ ) compared to nurses without children (OR= 1.94 and OR= 1.70). Conclusion: The severity and symptoms of WMSDs among nurses significantly correlated with workload in hospital among nurses with children. If women are at greater risk because of the combination of their work and family demands, synergistic effect of WMSDs was found among nurses. Comment: Women's domestic work, especially once they become mothers, they invest more time and energy caring for children, helping others, and doing housework. Thus domestic work, per se, may be a risk factor for wrist musculoskeletal problems, and, more importantly, it may constrain women's ability to protect themselves from the effects of their paid work. If nurses with more domestic work periodically make efforts to physical activity or modify inappropriate posture, their WMSDs symptoms will be alleviated.

**Keywords :** musculoskeletal disorders, nurse, NMQ, WMSDs

**Conference Title :** ICN 2016 : International Conference on Nursing

**Conference Location :** London, United Kingdom

**Conference Dates :** September 29-30, 2016