Work-related Musculoskeletal Disorders and Occupational Risk Factors in Taiwanese Oyster Shuckers

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Abstract

Background This work is to investigate the prevalence of musculoskeletal disorders among the oyster shuckers in Taiwan and identify the major risk factors associated with the complaints.

Methods Face-to-face interview using the Chinese version of the Standardized Nordic Musculoskeletal Questionnaire (NMQ) was conducted. Biaxial electrogoniometers and electromyography (EMG) were used to record the hand motion and forceful exertion of oyster shuckers.

Results Among the 234 oyster shuckers, low back, hand/wrist, shoulder and elbow discomforts were reported most frequently. Those who worked with benches had less musculoskeletal complaints in shoulder and elbow. Additionally, oyster shuckers were more prone to kyphosis than the general population.

Conclusions This study concludes that oyster shuckers are the high risk group of developing musculoskeletal disorders. Introduction of ergonomic design to oyster shucking workshops is needed to lessen the work-related musculoskeletal problems and more research efforts are warranted to investigate the causation of kyphosis among oyster shuckers.

Key words: Oyster shucker, Musculoskeletal disorders, Nordic Musculoskeletal Questionnaire, Electrogoniometer, Electromyography (EMG), Kyphosis