

UNIVERSITI TEKNOLOGI MARA

**RISK FACTORS OF WORK-RELATED
MUSCULOSKELETAL DISORDERS AMONG
DOMESTIC WASTE COLLECTORS IN SHAH
ALAM**

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DECLARATION BY STUDENT

Project entitled “Risk Factors of Work Related Musculoskeletal Disorders Among Domestic Waste Collectors in Shah Alam” is a presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature, and acknowledgement of collaborative research and discussions. The project was done under the guidance of Mr. Abdul Mujid Bin Abdullah as Project Supervisor. It has been submitted to the Faculty of Health Sciences in partial fulfillment of the requirement for the Degree of Bachelor in Environmental Health and Safety (Hons).

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ABSTRACT

Risk Factors of Work-Related Musculoskeletal Disorders Among Domestic Waste Collectors in Shah Alam

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Introduction: Musculoskeletal disorder is one of the leading causes of occupational injury, illness and disability within many countries and different occupations. Work related musculoskeletal disorder among municipal waste collectors has been reported widely in several studies due to manual handling and also requires repeated heavy physical activities. Some recommendation may be derived from this study that may reduce or alleviate the problems of WMSDs among waste collectors. **Methodology:** A cross-sectional study among 55 waste collectors of domestic contractor services under Shah Alam City Council was conducted to identify the Work Related Musculoskeletal Disorders (WMSDs) risk factors. The data were collected by using Modified Nordic Questionnaires and video recording in order to record the entire body movement and postures during working session. The questionnaires were used to identify Demographic data, occupational information and body part affected with WMSDs signs and symptoms. An Ovako Working Analysing System (OWAS) was used to identify the posture among waste collectors during their working task by reviewing the all the videos and focused mainly on back, arms, legs and loads of the waste collectors. **Result:** The results shows that high prevalence of musculoskeletal disorders symptoms among domestic waste collectors in Shah Alam were affected on lower back pain (n=40; 72.7%), shoulders pain (n=25; 45.4%) and knees pain (n=24; 43.6%). There was a significant association between age and period of working with neck pain, wrists or hands pain and ankles or feet pain. Neck pain and wrists or hands pain were significantly associated with age with (p=0.02) while ankles or feet pain was significantly associated with period of working with (p=0.05). **Conclusion:** The OWAS score showed the action required is under Category 2. This indicated that the corrective action is required in the near future. In addition, we can conclude that most of the workers are faced towards ergonomic hazards as they need to work in manual handling and repetitive task.

Keywords: *Musculoskeletal Disorders, Domestic Waste Collectors, OWAS*