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## **Assessment of Musculoskeletal Disorders and Risks Among Cleaning Staff at Bangunan Wawasan UiTM Shah Alam**

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### **Structured Abstract**

**Background:** Hazard Identification, Risk Assessment, and Risk Control (HIRARC) is a systematic approach to identifying and managing potential workplace hazards. In the cleaning sector, it aims to identify hazards, assess risks, and implement control measures to protect workers from harm. High-spot employment poses ergonomic and safety problems, including falling, musculoskeletal stress, physical labor, and environmental dangers. Manual handling hazards, such as falling materials and ladders, can also cause injuries. Cleaners in the cleaning profession are susceptible to MSDs due to factors like age, gender, anthropometry, work method, and experience. These injuries can affect various body parts, including the back, neck, shoulders, elbows, hands, and lower limbs.

**Methods:** The study employs a cross-sectional design to assess MSD risk factors among nine cleaning staff members at Bangunan Wawasan UiTM Shah Alam. Data collection methods include questionnaires, interview and observations of cleaning tasks. The data are analyzed using IBM Statistical Package for Social Sciences (SPSS) to determine sociodemographic parameters, the prevalence of musculoskeletal symptoms, and related risk factors.

**Results:** Subjects commonly experienced pain in the knees, shoulders, upper back, lower back, forearms, wrists, and hands. The data revealed a significant positive association between age and BMI with MSDs, suggesting that older persons and those with greater BMI had a higher likelihood of experiencing MSDs. Workers engaged in tasks that involve working at elevated heights, such as going on roofs and bending to dispose of trash and cut grass, are exposed to a significant level of danger. The duties of female workers in floor cleaning were categorized as having a moderate level of danger, with scores of 12.

**Conclusion:** In conclusion, the findings of this study indicated that cleaning staff frequently experience musculoskeletal disorder (MSD) exposure, with discomfort in various body parts, especially in tasks requiring awkward postures and high-risk activities. MSD risks among cleaning staff are influenced by age and BMI, and suggestion on ergonomic interventions are needed to reduce these risks.

**Keywords:** Musculoskeletal disorder (MSDs), risk, cleaning staff, awkward postures, high-risk activities

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