UNIVERSITI TEKNOLOGI MARA

ERGONOMICS EFFECT AMONG WASTE COLLECTOR

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Bachelor in Environmental Health and Safety (Hons)
Faculty of Health Sciences

JUNE 2018

DECLARATION BY STUDENT

This project entitled "Ergonomics Effect Among Waste Collector" Is a presentation of my original 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. This project was done under the guidance of Madam Siti Rohana Bt Mohd Yatim as a project supervisor. It has been submitted to the Faculty of Health Science in partial fulfilment of the requirement of Bachelor of Degree in Environmental Health and Safety (Hons).

Students Signature

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ACKNOWLEDGEMENT

With the name of Allah, The Most Gracious and The Most Merciful.

All praises to Allah, whom with His willing giving me the opportunity to complete my project. Firstly, I would like to express my deepest thanks to my project supervisor Madam Siti Rohana Bt Mohd Yatim for the input, guidance and support to me from beginning until end the of project. I would like to extent my sincere appreciation and thanks to all lecturers and staff in Department Environmental Health and Safety for their support, supervise and teaching throughout this project.

Sincerely thanks to all staff of Department of Environmental Services, Hulu Selangor Local Council (MDHS) where have a great cooperation and assisting during collecting data to this project. Grateful thanks for also dedicate to my colleague and fellow for their moral support, helping and teaching how to conduct the project and sharing information. I knew is hard being alone without my friends, thank you to them because always with me.

Special dedicate to my parents who endless giving support and motivate me to completing this project. All the sacrifice, love and encouragement you gave become an inspiration of my success.

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ABSTRACT

Musculoskeletal disorders(MSDs) is the ergonomic aspects related to health impact which lead to occupational injury and disability, commonly experienced by waste collector worker in many countries. MSDs problem caused from physical and manual handling activity, repetitive movement and heavy load work. The aim of this study is: (i) to determine the prevalence of ergonomic effect among solid waste collector, (ii) to determine the risk factors leading to ergonomic effect among waste collector activities and (iii) to identify the association between discomfort of body parts experienced by respondents and individual posture scores. A cross sectional study was carried out to collect data among 76 waste collectors under Hulu Selangor Local Council (MDHS). Standard Modified Nordic Questionnaire (SNMQ) is used to obtain the demographic data, prevalence of discomfort body region in past 12 month. Besides that, photo and video of worker during working are recorded in way to get the postural score by using Rapid Entire Body Assessments (REBA) tools. The prevalence rank of discomfort body part is to determine which the most body part had MSDs experienced in past 12 months. The result shows that lower back (84.2%), upper back (69.7%), wrist (68.4%), neck (64.5%) and shoulder (59.2%) were top 5 rank body part discomfort by correspondents. Majority postural body score (REBA Score) of respondent (66.3%) falls under High Risk Category where the score is between 8 to 10. Immediate corrective action and control plan are needed to minimize the risk. Association between prevalence body part and postural body score are shown non-significant $p>0.05$ for all body parts between these variables. As conclusion, waste worker is exposed with many ergonomic risk factors causes from the physical working condition in their daily routine.

Keyword: *Musculoskeletal Disorders(MSDs), Waste collector, Rapid Entire Body Assessments (REBA), Standard Modified Nordic Questionnaire (SNMQ)*