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Ergonomic Risk Assessment Among Warehouse Workers of Loading Department at Watsons Company

Muhammad Najmi Bin Zulkifli[a] , Zitty Sarah Ismail[a*]

Structured Abstract

Background: This cross-sectional study investigates the ergonomic risks and prevalence faced by warehouse workers at Watsons Company. This study also focusing on identifying, assessing, and mitigating potential hazards to enhance worker safety and productivity. The findings highlight common ergonomic issues such as awkward postures, static and sustained work posture, forceful exertion and repetitive motions, which contribute to musculoskeletal disorders and reduced efficiency. The sample size for this study was 50 workers. The research identifies critical areas which is loading department that had many issues reported regarding ergonomic problem.

Methods: One job task which is lifting the loads from the trolley to the pallet was selected to undergo the assessment which is Initial Ergonomic Risk Assessment (ERA) and Advanced Ergonomic Risk Assessment (ERA). The RULA method had been choose to quantify the risk level of job task. The Cornell Musculoskeletal Discomfort Questionnaire (CMDQ) also was used to determine the prevalence of Musculoskeletal Discomfort among warehouse workers.

Results: The most significant problems regarding Musculoskeletal Discomfort among warehouse workers was lower back with the percentage of 76% which means out of 50 workers 38 reported that they have lower back pain. Based on the advanced ERA which is Rula method, it is stated that the risk level of the job task that been assessed was 7 which indicate the highest scoring.

Conclusion: In conclusion, the findings of this study indicated that there is considerable potential in extracting natural dyes from diverse plant sources, thereby offering long term environmental advantages. The utilization of leftover plant material; Tamarindus Indica seed in this study for natural dye extraction could potentially be used for dyeing textiles, to substitute synthetic dyes.

Keywords: Rapid Upper Limb Assessment (RULA), Cornell Musculoskeletal Discomforts Questionnaiere (CMDQ), Initial Ergonomic Risk Assessment (ERA), Advanced Ergonomic Risk Assessment (ERA)

*Correspondence: zitty@uitm.edu.my

[a] School of Chemistry & Environment, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Malaysia