

Risk factors of musculoskeletal disorders among oil palm fruit harvesters during early harvesting stage

ABSTRACT

This cross-sectional study intends to investigate the associations of musculoskeletal disorders (MSDs) among foreign labourers on a socio-economic background, occupational exposure, social lifestyle, and postures adopted during harvesting tasks. A total of 446 male respondents (263 FFB cutters; 183 FFB collectors) were studied using an interview-assisted questionnaire. OWAS was used to determine the severity of awkward posture based on videos of harvesting tasks recorded for each respondent. Analysis found that increasingly educated respondents had higher risk of developing MSDs. Shorter daily work duration and longer resting duration appear to increase the risk of neck and shoulder disorders among harvesters, which may be attributable to organizational work design. Awkward posture was a particularly significant risk factor of MSDs among FFB collectors. Among the results of the study, occupational exposure, postures and certain socio-demographic backgrounds explained some, but not all, the risk factor of MSDs among harvesters. An in-depth investigation, preferably a longitudinal study investigating the dynamic of work activities and other risk factors, such as psychosocial risk factors, are recommended.

Keyword: Musculoskeletal disorders; Harvesters; Oil palm; Risk factors; Ergonomics