

Participatory Ergonomics Intervention for Exploring Risk Factors Lead to Work-Related Musculoskeletal Disorders Among Automotive Production Workers

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ABSTRACT

Risk factors related to work activity and ergonomics can make it more challenging to maintain this balance and raise the probability that some individuals may develop musculoskeletal disorders (MSD). This study was designed to identify the ergonomics risk factors that increase work-related musculoskeletal disorders (WMSD) among automotive production workers. The participatory ergonomics (PE) was employed to assess the risk factors related to WMSD by involving production workers and management team. The study was initiated by reviewing previously established studies regarding critical body region pains risk factors. Expert interviews were then conducted to share knowledge from senior management staff members to identify the potential risk factors. The predicted risks factors were assessed with a mixed group of senior workers from three automotive manufacturers through a survey questionnaire. In all, twenty-six dominant risk factors related to WMSD, specifically in the context of automotive production plant operations were found, and these factors can be considered as points for targeting ergonomics intervention efforts.

KEYWORDS: Ergonomics risk factors; Work-related musculoskeletal disorders; Participatory ergonomics; Production workers; Automotive

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