

Investigation on musculoskeletal discomfort and ergonomics risk factors among production team members at an automotive component assembly plant

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Abstract. Musculoskeletal discomfort (MSD) is very common condition in automotive industry. MSD is affecting the worker's health, well-being and lower down the productivity. Therefore, the main objective of this study was to identify the prevalence of MSD and ergonomics risk factors among the production team members at a selected automotive component manufacturer in Malaysia. MSD data were collected by conducting structure interview with all participants by referring to the Cornell Musculoskeletal Disorder Questionnaire (CMDQ). Those production team members who achieved a total discomfort score for all body regions more than 100 was selected for job task assessment. The physical exposure risk factors of work related musculoskeletal disorders (WMSD) has evaluated by using Quick Exposure Check (QEC) techniques. The results of the study identified the severe MSD associated with production assembly team members. It is expected that the prevalence of MSD for those production assembly team members was lower back (75.4%), upper back (63.2%), right shoulder (61.4%), and right wrist (60%). The QEC analysis discovered that about 70% of job tasks had very high risks for neck posture and 60% had high risks for the back (in moving condition) and shoulder/arm postures. There were 80% of respondents have produced a high score for exposure risk to vibration. As a conclusion, the main implication of the current study is that special attention should be paid to the physical and psychosocial aspects in production team members with musculoskeletal discomfort to improve their safety, health, and well-being, maintain work ability and productivity.