

MITIGATING MUSCULOSKELETAL DISORDER USING OCCUPATIONAL CHAIR AMONG BATIK WORKERS

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ABSTRACT

Background: Work-related musculoskeletal disorders (WMSDs) are a common health problem throughout the world and a major cause of disability in the workplace. Awkward working posture, such as commonplace in batik industry, is a main risk factor for developing WMSDs. This study aimed to assess the effect of occupational chair on mitigation of musculoskeletal disorder among batik workers.

Subjects and method: This was a quasi-experiment study before and after with no control design conducted at a batik factory. A sample of 50 batik workers was selected for this study. The dependent variable was WMSDs. The independent variable was type of chair, which was 'dingklik' (short chair without backrest, armrest, and hard seat) before intervention, and occupational chair (chair height= 28.39 cm; chair length= 39.74 cm; chair width= 39.73 cm; chair back height= 42.46 cm; chair back width= 39 cm) after intervention. The data of WMSDs were collected by survey instrument of skeletal muscle disorders from the Indonesian Ergonomic Association (PEI). The other data were collected by questionnaire and observation. The data were analyzed by a logistic regression.

Results: Batik workers sitting on 'dingklik' had WMSDs, including pain, ache, and uncomfortable neck, shoulder, hip, and knee. Batik workers sitting on occupational chairs had no WMSDs.

Conclusion: Occupational chair is effective to prevent work-related musculoskeletal disorders (WMSDs) among batik workers.

Keywords: work-related musculoskeletal disorders, dingklik, occupational chair, batik worker

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