RESEARCH ARTICLE | MAY 22 2023

Ergonomic evaluation and intervention of manual cutting process in textile industries

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AIP Conf. Proc. 2492, 050023 (2023)

https://doi.org/10.1063/5.0130465

Human factors are considered to be predominant factor in most of the industries were manual work is practiced, which leads to discomfort of the workers. To determine the symptoms of musculoskeletal disorders (MSD) and level of job satisfaction among fabric cutting workers in garment industries of Tirupur district, Tamilnadu, India, where the task of the worker (stitching, cloth cutting, fine finishing, inspection, steaming, dispatching) is found to be continuous process which leads to discomfort of the worker. In these garment industries workers are forced to achieve an impossible target of more than 100 pieces with an hour which is comparatively higher than the normal quantity of pieces produced per hour. To overcome this, a (interview based) survey has been conducted with a questionnaire. 300 male workers from different garments participated in this survey, where they are doing the manual cutting task repetitively using scissors. In this survey it was found that 270 out of 300 people (90%) affected by wrist pain, (93.3%) of workers heavily affected by finger pain due to continuous cutting work in scissor and (30-40%) of workers affected by back pain, neck pain, upper arm pain. To improve to the comfort level of the workers the risk control measures such as muscle fatigue recovery exercises like tendon gliding and finger pumping are provided and addition to these postural corrections were done during the work time.

Topics: Musculoskeletal system, Tissues, Interviews, Corrections, Industry

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