

Footrest intervention: association between prolonged standing and perceived exertion in the body parts among industrial workers using Borg's scale questionnaire

ABSTRACT

Posture involves complex interactions between bones, joints, connective tissue, skeletal muscles and nervous system. The complexity of these interactions is compounded when one considers the near infinitesimal variety of human balance (Timothy and Michelle, 2015). Poor posture can lead to excessive strain on our postural muscles (Dariusz et al., 2018). In industrial workplaces, prolonged standing has been identified as one of the risk factors which associated with occupational injuries (Halim et al., 2012). Many workers are required to stand for a long time period in performing their task without sit or walk during work shift (Waters and Dick, 2015). Prolonged standing involves in occupational aspect especially in service and manufacturing sector (Messing et al., 2008). Static work postures particularly prolonged standing and trunk and neck flexion have been identified as tasks at high risk for causing acute and chronic MSD (Reid et al., 2010). Hence, occupational related to prolonged standing has become rising issue and concern in the aspect of ergonomic such as by providing footrest encourages proper posture as it gives support to the lower back and increases circulation to the leg of the user (Halim and Omar, 2011). Various studies which have been conducted indicate prolonged standing is associated with development of musculoskeletal disorders including lower back pain, lower extremity discomfort and varicose (Nelson-Wong et al., 2008). Based on previous study by Lin et al. (2012), the result of analytical indicated that leg discomfort is significantly affected by prolonged standing especially in the first 2 h.