ABSTRACT

Occupational health and safety play a crucial role in maintaining both productivity and the well-being of workers, including those in service sectors such as coffee shops. The application of ergonomics is essential to enhance work comfort, particularly for baristas who perform repetitive tasks with non-ergonomic postures, which can potentially lead to Musculoskeletal Disorders (MSDs). This study aims to identify MSD risk factors, evaluate the risk levels of working postures, and provide recommendations for improving work facilities based on ergonomic principles. The research was conducted at Tel-U Coffee Purwokerto, focusing on barista work activities with six baristas as the study subjects. The methods employed included observation, anthropometric measurements, the Nordic Body Map (NBM), and the Rapid Upper Limb Assessment (RULA). The analysis revealed that several activities, such as operating the espresso machine, retrieving ice cubes, and packaging cups, presented high-risk levels (score level 4). As a solution, two ergonomic work table designs were developed and adjusted to match the baristas' anthropometric percentile data. One design integrated an ice box to reduce bending postures. Validation results indicated that the proposed design improved work comfort, reduced physical complaints, and had the potential to increase productivity. The study concludes that implementing ergonomic principles can effectively minimize MSDs and enhance barista performance.

Keywords*: Barista, Work Posture, Ergonomics, NBM, RULA, Anthropometry*