ABSTRACT

Sewing activities that are carried out repeatedly over a long period of time can cause physical complaints related to disorders of the musculoskeletal system, especially if the work environment does not support ergonomic principles. Merry Konveksi, as one of the small-scale production units in North Lampung, faces this challenge with the high number of physical complaints experienced by sewing workers. This study uses a quantitative descriptive approach to evaluate the working conditions of tailors by combining the Rapid Entire Body Assessment (REBA) and Maynard Operation Sequence Technique (MOST) methods. The REBA method is used to assess the level of risk of work posture, while the MOST method is used to measure the time efficiency of the observed work process. Data were obtained through direct observation, filling out the Nordic Body Map questionnaire, and anthropometric measurements on ten workers. The initial measurement results showed a REBA score in the high category with an average value of 10, indicating a significant risk of injury. The work process was also identified as having unproductive time due to inefficient movements. After redesigning the work station by adjusting the height of the table and chair based on the workers' anthropometric data, as well as rearranging the work tools, the REBA value decreased to 4 and work time showed a change in efficiency of 14.91%. The analysis concluded that improving work posture through an ergonomic approach can reduce the level of physical complaints and increase work effectiveness. Further discussion emphasized the importance of an ergonomic approach in the design of small-scale work facilities to create a work environment that is not only productive, but also maintains the long-term health of workers.

Keywords: Ergonomics, REBA, MOST, Workstation Redesign, Garment Industry.