

## Knowledge and Practice of Ergonomics and Their Associations with Work-related Musculoskeletal Disorders among the Health-supportive Staff of the National Hospital Kandy, Sri Lanka

UIH Senavirathna<sup>1#</sup>, AJB Rathnayaka<sup>2</sup>, and BMC Rathnayake<sup>1</sup>

<sup>1</sup>Department of Nursing, Faculty of Allied Health Sciences, University of Peradeniya, Sri Lanka

<sup>2</sup>Sports Medicine Unit, National Hospital, Kandy, Sri Lanka

<sup>#</sup>hashansenavirathne@gmail.com

Health-supportive workers (HSWs) in healthcare facilities have a greater risk of work-related musculoskeletal disorders (WRMSDs) due to manual handling of patients and equipment. However, practicing ergonomics can prevent WRMSDs effectively. This study aimed to assess the levels of knowledge and practices of ergonomics and their relationship with WRMSDs among HSWs at National Hospital Kandy (NHK). A descriptive cross-sectional study was conducted from November to December 2023 at NHK with a sample of 403 health care assistants and health attendants who were randomly selected. HSWs who were pregnant, or on leave due to any reason were excluded. Knowledge and practice were assessed using an interviewer-administered questionnaire while the Nordic Musculoskeletal Questionnaire was used to identify WRMSDs. Knowledge levels of ergonomics were categorized as poor (0–10), fair (11–20), good (21–30), and very good (31–40), while practice levels of ergonomics were categorized as poor (5–9), moderate (10–14), and good (15–20). The chi-square test was used to describe the associations between variables. Among participants, 250 (62%) were female and 153 (38%) were male. Most participants (n=151, 37.5%) were aged 31–40 years, and the majority (n=189, 46.9%) had 0–10 years of experience as a HSW. The prevalence of WRMSDs among HSWs was reported as 88% (n=357). Knowledge levels showed that 62% (n=250) had “good” knowledge, and 31.8% (n=128) had “very good” knowledge of ergonomics. In practice of ergonomics, 60.8% (n=245) were at a “moderate” level, and 30.5% (n=123) were at a “poor” level. There was a statistically significant association between knowledge and WRMSDs ( $p=0.01$ ), as well as between practice and WRMSDs ( $p<0.001$ ). Despite a good level of knowledge about ergonomics, a high prevalence of WRMSDs was noted due to inadequate ergonomic practices. Therefore, authorities should implement ergonomics training programs, self-evaluation checklists, and ergonomic-friendly instruments to prevent WRMSDs.

**Keywords:** *ergonomics, knowledge, practice, work-related musculoskeletal disorders, health-supportive staff*