Predictors of musculoskeletal disorders among special education teachers in Sabah, Malaysia

ABSTRACT

Special education teachers encounter considerable occupational challenges, yet there is limited information concerning musculoskeletal disorders (MSD) within this group. Therefore, this study aimed to address this gap by determining the prevalence of MSD, investigating associated factors of MSD, and identifying predictors of MSD among special education teachers. A cross-sectional study was conducted among special education teachers in Kota Kinabalu and Penampang, Sabah. Data were collected through self-administered questionnaires and musculoskeletal fitness assessments. Chi-square tests and independent t-tests were utilized to determine factors associated with MSD, while multiple logistic regression was performed to develop a comprehensive predictive model for MSD, which was then validated and tested for model fitness. A total of 122 individuals participated in the study, yielding a response rate of 95 %. The findings revealed a high prevalence of MSD (77.9 %) among special education teachers, with the lower back, shoulder, neck, knee, upper back, and foot being the most affected regions. The multivariable regression model identified several predictors of MSD, including marital status (adjusted odds ratio [aOR] = 4.78, 95 % confidence interval [CI] = 1.49–15.40), body fat percentage (aOR = 1.06, 95 % CI = 1.00–1.12), teaching in prolonged standing for few days a week (aOR = 3.20, 95 % CI = 0.99–10.29) or every day (aOR = 6.20, 95 % CI = 1.44–26.70), mindfulness (aOR = 0.47, 95 % CI = 0.22–0.98), and back extensor strength (aOR = 5.86, 95 % CI = 1.92–17.92). This study highlights the necessity of implementing interventions focusing on the ergonomic, psychological, and musculoskeletal fitness components to mitigate the prevalence of MSD and improve the overall well-being of special education teachers.