

## **Playing-related musculoskeletal disorders among classical piano students at tertiary institutions in Malaysia: proportion and associated risk factors**

### **ABSTRACT**

Musicians are prone to performance injuries due to the nature of musical practice, and classical pianists are among the groups at high risk for playing-related musculoskeletal disorders (PRMDs). With the growing number of classical pianists in Malaysia, this study aimed to investigate the proportion of PRMDs occurring among classical piano students in tertiary institutions in Malaysia. Associations between gender, practice habits, diet, sports involvement, and PRMD were investigated. A survey was conducted among classical piano students (n=192) at tertiary institutions of Kuala Lumpur and Selangor. Results showed that 35.8% (n=68) students reported having PRMD. The shoulder was the most commonly affected body site, followed by the arm, finger, and wrist. Pain, fatigue, and stiffness were the most cited symptoms by those who suffered from a PRMD. Chi-square analysis showed a significant relationship between the occurrence of PRMD and practice hours ( $p=0.031$ ), the habit of taking breaks during practice ( $p=0.045$ ), physical cool-down exercises ( $p=0.037$ ), and special diet ( $p=0.007$ ). Multivariate logistic regression analyses confirmed the independent correlation between PRMDs and the lack of taking a break during practice, physical cool-down exercises, and special diet. Because PRMDs are reported at various severity levels, this study should increase awareness of PRMD among classical piano students and encourage injury prevention in musicians in the future to ensure long-lasting music careers.