

## Abstract

**Background:** Low back pain (LBP) is one of the most common musculoskeletal disorders in the population especially in working population. Epidemiological researches have been provided information on the prevalence, incidence and risk factors of LBP in the workers. There was little information related prevalence, incidence and risk factors of LBP among the university staff.

**Aim:** The author aims to investigate the prevalence and incidence of LBP and explore risk factors of LBP among university staff in the government sector.

**Methods:** Phase 1 was cross-sectional survey for prevalence of LBP in university staff by using self-administered questionnaires. There were 1,183 questionnaires were sent to the university by official messenger. Data collection period was between October and December 2008. Eight hundred and three staff returned the questionnaires (response rate of 67.9%). The questionnaire included low back pain information, demographic data, work-related characteristics, and habitual physical activity level. Phase 2 was cohort study in university staff without LBP to evaluate the effect of trunk muscle performances on 6-month incidence of LBP. There was only 209 participants accepted invitation and entered to the trunk muscle performance evaluation processes. The follow-up period was 6 months by using the self-reported questionnaire.

**Results:** Phase 1 found the 6-month prevalence of self-reported LBP was 22.3% (95%CI: 19.4%-25.2%). The result of multivariate analysis showed that habitual physical activity level as athletic level appeared to be the protective effect when compared to sedentary level (adjusted OR 0.44, 95%CI: 0.2-0.9). Phase 2 found the 6-month incidence of LBP in this study was 10.6% (95%CI: 6.3%, 15.0%). The limitation of this study was insufficient sample size led to low power to detect the association between trunk muscle performance and incidence of LBP.

**Conclusions:** Based on the results of cross-sectional survey, the physical activity as athletic level appears to be associated factor with the 6-month prevalence of LBP. Consequently, it is important that prevention programs take into account this risk factor in order to reduce the frequency of low back injuries in university staff and improve their work efficiency.