

UNIVERSITI TEKNOLOGI MARA

**PREVALENCE AND RISK FACTORS
FOR NECK PAIN AND LOW BACK
PAIN AMONG FEMALE PRIMARY
SCHOOL TEACHERS IN BANDAR
BUKIT MAHKOTA**

MUHAMMAD FARHAN BIN ISTIHAT

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ABSTRACT

Introduction: Musculoskeletal Diseases (MSDs) are among the most widespread and severe occupational health issues, and school teachers are employees with a high rate of MSDs. Several studies have reported a high prevalence of low back pain and neck pain among primary school teachers. An increasing proportion of female teachers compared to male teachers is positively associated with the prevalence of musculoskeletal health issues. This study aimed to determine the prevalence of neck pain and low back and the risk factors among female primary school teachers. This study also identified the association between individual factors, work characteristics, occupational factors, neck pain, and low back pain among female primary school teachers. **Methodology:** A cross-sectional study was conducted among 50 female primary school teachers in Sekolah Kebangsaan Bukit Mahkota. The questionnaire's demographic characteristics included age, height and weight, and lifestyle surveyed. The working characteristic was assessed using the questions for years in the current job, working hours per week, hours of lessons per week, and hours of working with a computer per day. Occupational risk factors were assessed using the questions derived from the standardized Dutch Musculoskeletal Questionnaire (DMQ) based on those specifically related to school teachers. In addition, the final component of the questionnaire included anatomical diagrams of the indicated locations and focused on musculoskeletal pain according to the Nordic Musculoskeletal Questionnaire (NMQ) to determine prevalence. **Result:** The 12-month prevalence of neck and low back pain among the respondents was 78.0% and 70.0%, respectively. Two risk factors were significantly associated with neck pain: age ($p = 0.027$) and working with a hand above the shoulder ($p = 0.035$). For low back pain, having enough rest time ($p = 0.070$) was significantly associated with low back pain. **Conclusions:** High prevalence of neck and low back pain had shown among female primary school teachers in Bandar Bukit Mahkota. Individual and occupational factors can contribute to neck and low back pain among female primary school teachers.

Keywords: Neck pain, low back pain, female primary school teacher, individual factors, work characteristics, occupational risk factors

CHAPTER 1

INTRODUCTION

1.1 Background of study

Musculoskeletal disorders (MSDs) have been among employees' most common health issues and significantly impact their life conditions (Bandpei et al., 2014). School teachers are likely at a high risk of having MSDs (Korkmaz et al., 2011). Musculoskeletal diseases are one of the teachers' primary triggers of ill-health retirements (IHR) (Maguire & O'connell, 2007). According to Yue et al. (2012), musculoskeletal issues among teachers, especially in the lower back and neck, are common.

According to epidemiological studies, high musculoskeletal disorders (MSDs) prevalence rates among school teachers are linked to age, gender, length of employment, and awkward posture (Erick & Smith, 2011). Awkward sitting positions, continuous head-down postures, negative emotional state, high anxiety levels, and heavy workload are also all circumstances that can lead to MSDs in teaching (Ehsani et al., 2018). A teacher's responsibilities include instructing students, organizing classes, assessing classwork, participating in extracurricular programs, preparing for external school reviews, and so on. Teachers may endure physical health difficulties, including musculoskeletal stress, due to the complexity of job tasks and frequent overtime (Chong & Chan, 2010). Therefore, the study aims to measure the prevalence of neck pain and low back pain among female primary school teachers and investigate the risk factors.