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PAPER

## **Prevalence and determinants of Low Back Pain (LBP) among nurses in different health care units in four hospitals in Colombo, Sri Lanka**

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### **Introduction:**

Hospitals are complex systems that rely on nursing care in diverse care settings where many nursing job tasks are physically and psychologically demanding. In healthcare, the highest prevalence of Low Back Pain (LBP) is reported among nurses. There is little information regarding its prevalence and the determinants.

### **Objectives:**

To determine the prevalence of LBP among nurses in diverse care settings in hospitals and its association with work-related psychosocial and ergonomic risk factors.

### **Method:**

This analytical cross sectional study comprised 862 female nurses sampled from two teaching hospitals and two base hospitals in the Colombo district. Information on regular physical activity and work-related ergonomic and psychosocial stress factors were collected using a pre-tested self administered questionnaire. Descriptive statistics used to determine the prevalence and associations of risk factors with pain symptoms were assessed by logistic regression analysis adjusting for age, and summarised by odds ratios (ORs) with associated 95% confidence intervals (CIs).

### **Results:**

The response rate was 70% (n=602). The overall prevalence of LBP among nurses during the past 12 months was 38% (n=229), in nurses in teaching hospitals being 40% and in nurses in base hospitals being 31%. Among the patient care units/wards, nurses in ICU had the highest

prevalence of LBP (35%); the lowest prevalence was among nurses in pediatric wards (4.4%). Factors significantly associated with LBP were BMI > 25 (overweight) (OR 1.85; 95% CI 1.20-2.84), working in the ICU (OR 1.55; 95% CI 1.06-2.25), time pressure to complete tasks (OR 1.55; 95% CI 1.10-2.19), perception of poor general health (OR 1.95; 95% CI 1.12-3.38), and history of an accident (OR 1.80; 95% CI 1.17-2.78).

**Conclusions:**

Personal, work-related ergonomic and psychosocial factors were significantly associated with LBP among nurses. These need to be taken into consideration when planning strategies to reduce LBP among nurses.

**Keywords: Nurses, Low Back Pain, Prevalence, Determinants, Diverse Care Settings**