

00132 Effectiveness of Ceiling Lifters in Reducing Self-reported Low Back Pain Among Nurses—experience of a Tertiary Hospital in Singapore

Lee Shi Hui, Teo Wei Qin, Ang Shin Yuh, Yeap Theng Hui Stephanie, Chew Jing Si, Ang Seng Giap Marcus, Kam Wai Kuen

Singapore General Hospital

Aims: The prevalence of low back pain (LBP) in nursing is amongst the highest of all professions globally. The main cause of LBP among nurses is heavy manual lifting associated with carrying and transferring patients. Ceiling lifter is one of the various measures aimed at reducing LBP among nurses. However, no literature has reported the effectiveness of ceiling lifters in reducing LBP among nurses working in acute inpatient settings in Singapore. This study aimed to determine whether the usage of ceiling lifters is associated with reduced self - reported LBP among nurses working in a tertiary hospital in Singapore.

Methodology: A repeated measures survey design was adopted. Nurses from a general ward and an intensive care unit (ICU) were invited to participate. Participants were asked to complete a questionnaire (comprising questions eliciting demographic data, history of LBP and the Aberdeen LBP disability scale) before ceiling lifters were installed. Participants were again asked to complete the Aberdeen LBP disability scale and report the frequency of their usage of ceiling lifters at 3 months and 6 months after the installation of ceiling lifters in their respective work areas.

Result: Forty - five participants' data were available for analysis (data of participants who did not use ceiling lifters by 3 months (n=74) were excluded); 16 were from general ward while 29 were from ICU; most were female (91%) and staff nurses (82%); all were working full time and 3 rotating shifts. Paired sample t tests demonstrated a significant ($p < 0.0001$) difference in the Aberdeen LBP disability scale before (mean 16.3, SD 10.4), at 3 months (mean 13.4, SD 10.8) and 6 months (mean 10.5, SD 9.0) after ceiling lifters were installed.

Conclusion: The usage of ceiling lifters was associated with reduced self - reported LBP among nurses working in acute inpatient settings as demonstrated by lower scores on the Aberdeen LBP disability scale.