



KEY POINT SUMMARY

OBJECTIVES

The purpose of this study was to evaluate the effectiveness of mechanical patient hoists at reducing musculoskeletal injuries following the deployment of such lifts in acute care hospitals and long-term care facilities.

DESIGN IMPLICATIONS

Studies, including this one, show that lift use can reduce occupational musculoskeletal injuries to nursing personnel in both LTC and acute care settings. Therefore, lift use can be recommended in hospital units as a means of reducing staff injuries.

Reduction in Injury Rates in Nursing Personnel Through Introduction of Mechanical Lifts in the Workplace

Evanoff, B., Wolf, L., Aton, E., Canos, J., Collins, J.
2003 | American Journal of Industrial Medicine
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Key Concepts/Context

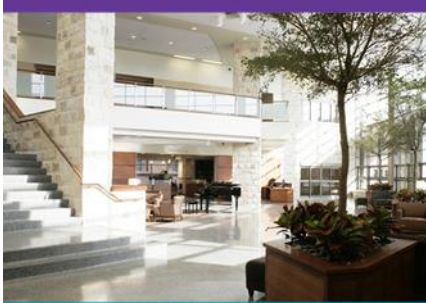
Many studies have reported a high rate of back injuries and other musculoskeletal disorders among healthcare workers. Back pain has been identified as a major factor in causing nurses to leave the profession. Patient care requires many lifting and transfer tasks that pose a demonstrated risk of injury to workers. Mechanical assistive devices such as patient hoists offer an engineering solution to reducing potentially harmful physical exposure to nurses.

Methods

This pre-post intervention study was conducted at four hospitals and five long-term care (LTC) facilities. A total of 31 intervention units were included from four hospitals; five were from LTC facilities. In this study, 25 full-body lifts and 22 standup lifts were utilized for 36 units. Lift types were chosen based on needs of the units. The authors collected data from the Occupational Safety and Health Administration (OSHA) 200 logs, a federally mandated record of work-related injuries or illnesses that require medical treatment or result in lost time or restricted duty. Researchers estimated the frequency of lift use by briefly interviewing nurses in the intervention units on several different shifts. They used chi-square statistics for comparing differences in patient lift use between different groups.

Findings

Nursing units that had mechanical lifts installed showed marked declines in musculoskeletal injuries, lost day injuries, and lost days in the postintervention period. Data combining the acute care and LTC units showed a relative risk (RR) of



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recordable injury of 0.82, a RR of lost day injury of 0.56, and a RR for lost day rate of 0.38, comparing the postintervention to the preintervention period.

Self-reported frequencies of lift use by registered nurses and by nursing aides were higher in the LTC facilities (10% and 50%) than in acute care hospitals (6% and 34%). The most common reasons given for nonuse of lifts included lack of perceived need for lifts, insufficient training in lift use, and lack of time.

The recordable injury rates and lost day rates were similar in the two groups of units (units in acute care nursing facilities that recorded high rates of lift use versus ones that recorded lower rates of lift use) in the preintervention period. Units where lifts were reportedly used had substantial lower rates in the postintervention period.

Limitations

- Researchers obtained interview data from a representative sample of workers on different shifts, but without a random sample of the work population, it may have over- or underestimated the frequency of lift use.
- Researchers asked the questions regarding use on the last shift used and may have underestimated the frequency of lift use.
- Lifts were not randomly allocated to nursing units. Differences between units that received a lift and those that did not may or may not account for some of the effects the authors observed.