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Assessment of risk factors for musculoskeletal disorders amongst provincial laundry workers

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TITLE: ASSESSMENT OF RISK FACTORS FOR MUSCULOSKELETAL DISORDERS AMONGST PROVINCIAL LAUNDRY WORKERS

ABSTRACT

Background

Provincial laundry's primary function is to receive contaminated linen items from different hospitals and clinics within the district(s) for cleaning to ensure there is adequate supply of clean linen in the hospitals. Provincial laundry workers are responsible for this task. During cleaning of contaminated hospital linen items, laundry workers are exposed to several stressor categories such as physical, biological, chemical, psychosocial and ergonomics. There are health and safety concerns among provincial laundry workers, which are influenced by ergonomic related exposures.

Study Aim

The study aimed to evaluate task based ergonomic risk factors in the workstations of laundry workers in a provincial laundry in the Gauteng province.

Methods

This was a descriptive study where ergonomic risk factors for musculoskeletal disorder were identified and assessed. A convenient sampling technique was applied to select 112 laundry workers. The data was collected by means of a walk-through survey and observations of tasks. A survey sheet which included the assessment of ergonomic risk factors, and the hazards present per activity was used and existing control measure(s) and the number of employee(s) exposed were captured.

Demographic information and characterisation of the work activities performed by laundry workers were also collected. The Rapid entire body assessment (REBA) tool was used to assess work postures amongst provincial laundry workers.

Results

A total of 112 provincial laundry workers participated in the study. Approximately 97.3% of provincial laundry workers were African and 1.8 % were white. A total of 60.7% of laundry workers were found to be female and 39.3% were found to be male. The largest age group was 44–54 years, which comprised 46.4% of the laundry workers with a mean age of 44.5 years. The next age group, which was 24–34, comprised 22.3% of the laundry workers. A total of 28.5% of laundry workers were found to have 2–5 years working experience in the laundry.

Due to manual handling activities in the laundry, it was found that all tasks (9/9; 100%) required bending, prolonged standing, pushing and pulling, static and repetitive tasks. This is because the tasks are done in standing position and awkward postures are adapted by laundry workers. Apart from ergonomic risk factors, workplace environmental conditions such as heat, and noise were identified in some areas. All laundry tasks performed by provincial laundry workers posed a very high risk for the development of musculoskeletal disorders in terms of the calculated REBA scores.

Conclusions

It can be concluded that provincial laundry workers are exposed to numerous ergonomic risk factors due to the tasks that require manual handling. Based on the REBA scores, the laundry workers are at very high risk of developing musculoskeletal disorders. There is a need to implement interventions that may lower the risk of developing musculoskeletal disorders amongst provincial laundry workers. Intervention should be more focused on the modification of workplace design by alternating between tasks which require prolonged standing and elimination of the poor postures by training employees on correct postures while working.