Supermarket workers shelve musculoskeletal disorders

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Lower back pain poses problems for supermarket workers, but chances are they won't tell

Take Home Messages:

- Musculoskeletal disorders are more common in supermarket employees other than cashiers;
- Different types of musculoskeletal disorders occur in different work areas, and while performing different tasks within the supermarket;
- Musculoskeletal data from compensable claims was quite different to the data from self-reported injury. This suggests a risk of underestimation of the problem by using solely compensable injury data.

Why the research matters:

Supermarket workers are well known to be at risk of musculoskeletal disorders.

While cashiers do not account for the majority of compensation cases, most research focuses only on these workers to the detriment of other worker departments.

This study, from Quebec, Canada, aims to address ‘gap’ and provide better insight into the health of all supermarket workers, with particular attention to musculoskeletal disorders.

What the research involved:

Researchers chose one particular supermarket company based in Quebec. The company included 57 supermarkets which employed a total of 3910 employees.

Two sources of data were used to collect information regarding musculoskeletal disorders of the back and upper and lower limbs:

1. Compensation statistics from each of the 57 supermarkets. These were referred to as Musculoskeletal Injuries (MSIs).
2. Self-reported questionnaires that were administered in 4 selected stores. These had an 89% response rate. These were referred to as Musculoskeletal Problems (MSPs).
Summary of research findings:

The 57 supermarkets had rather similar characteristics, including:

- Approximate size of 2044 square meters;
- 73% had a single floor;
- An average total of 85,264 hrs worked yearly in each supermarket; and
- Each store was open for approximately 92hrs a week.

Characteristics of the supermarket employees:

- There were approximately 69 employees to each supermarket, 45% being women and 55% men;
- 40% were between 15 - 24 yrs. These were mainly part-time workers; and
- The average age of regular workers was 40yrs.

The two sources of data provided rather different pictures of the musculoskeletal disorders occurring in the supermarket setting.

MSIs in the 57 supermarkets

There were a total of 224 occupational injuries between Jan 1995 and Jan 1996. 140 of these were musculoskeletal in nature. The departments with the most MSIs were the delicatessen, grocery, and meat sections.

The body regions most commonly affected were:

- Back - 46%.
- Upper limbs - 38%
- Lower limbs - 7%
- Neck - 5%

Self-reported MSPs in 4 selected stores

Data was collected from all employees except cashiers and managers.
• 83% reported having had some sort of MSP in the last 12mths (pain, aches or discomfort).
• 66% had a problem in lower back region.
• 27% had a problem that was severe enough to impede their regular actions at work or at home.
• Most workers did not associate their problems with a traumatic event.

Departments shown to be most at risk of MSPs were the service department (ie. wrappers), the bakery department and the grocery department.

When compensable MSIs were compared with self-reported MSPs, it became evident that it was the lower back region that was most commonly affected. The other body regions, however, were not consistent between the two parts of the study. The risk of injury in other body regions seemed to depend very much on the type of work being carried out.

Original research:

Supermarket workers: Their work and their health, particularly their self-reported musculoskeletal problems and compensable injuries.


Link to Pub Med abstract