Are all “no-lift” policies the same?

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In 2001, nursing & home care was the 2nd most dangerous workplace for non-fatal injuries.

- Injury rate = 13.0 per 100 workers

*Only airport baggage handlers had a higher rate (13.6)*
Nursing home injury rates in 2003

- Total injury rate = 9.7 but still 2X the national average
- Lost time injuries per 10^5 workers
  - Total industry = 150 (strain & sprains = 64.3)
  - Hospitals = 199.6 (strain & sprains = 115.9)
  - Nursing homes = 317.9 (strain & sprains = 177.6)
Nursing homes have problems with staff retention

- Nationwide, 96,000 vacancies (52,000 for CNAs)
- Turn-over rate for CNAs is 70%
Goal: promote the use of mechanical lifts; not backs for nursing home transfers

NIOSH
Research design & methods

- Cross-sectional study
  - All nursing personnel in two nursing homes in central, Illinois
- Data collection: self-administered questionnaire
Data from pilot study

Two nursing homes with 108 employees

- (19 RNs, 19 LPNs, & 70 CNAs)
- Median age: 40 yr.
- Median time worked in nursing: 10 yr.
Resident lifting policies

- Nursing home site #1 “no-lift” policy only pertained to totally bed-ridden residents
- Nursing home site #2 “no-lift” policy applied to all resident lifts & transfers.
  - Policy implementation included new lifts.
  - One nurse is the designated lifting trainer
Prevalence of LBP

- Prevalence of severe LBP last year: 46.6%
  - 50.0% at site #1
  - 41.4% at site #2
- The difference was not statistically significant
Low back pain due to lifting

<table>
<thead>
<tr>
<th></th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manually lift a fallen resident</td>
<td>3.8</td>
<td>1.3 – 10.7</td>
<td>0.009</td>
</tr>
<tr>
<td>Did not use mechanical lift</td>
<td>2.7</td>
<td>1.0 – 7.1</td>
<td>0.047</td>
</tr>
</tbody>
</table>
Comparison of manual lifting patterns between sites 1 & 2

<table>
<thead>
<tr>
<th>Activity</th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifted a fallen resident (semi-ambulatory)</td>
<td>10.3</td>
<td>4.1-25.6</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Lifted a fallen resident (non ambulatory)</td>
<td>4.7</td>
<td>1.9-11.9</td>
<td>0.001</td>
</tr>
<tr>
<td>Transfer from bed to stretcher</td>
<td>2.9</td>
<td>1.2-7.19</td>
<td>0.018</td>
</tr>
<tr>
<td>Transfer from bed to toilet</td>
<td>2.4</td>
<td>1.1-5.3</td>
<td>0.035</td>
</tr>
</tbody>
</table>
Effects of psychological stress

- Karasek’s Demand-Control Model predicts that workplaces high in physical & psychological demand, & low in job control & social support will be high in stress.

- Stress has been shown to influence LBP.
Stress levels in nursing homes

- The majority believed that the workplace was physically & psychologically demanding but
- The majority also believed that they had a high degree of job control &
- They reported high levels of co-worker & supervisor social support
Comparing sites #1 & #2

- Site #1 reported significantly higher levels of physical demand
  - OR = 3.2, 95% CI = 1.4 - 7.2, p-value = 0.004

- It also reported higher levels of supervisor support
  - OR = 2.7, 95% CI = 1.7 - 6.1, p-value = 0.018
Discussion Part 1

- Employees who used their backs instead of lifts for resident transfers had significantly more LBP
- Employees at site #1 reported significantly higher levels of manual lifting of residents
Discussion Part 2

- Psychological stress did not appear to have a role in LBP at either facility.
- Employees at site #1 perceived that their work environment was more physically demanding than site #2 but they did not blame their supervisor for the heavy workload.
Conclusion

- The implications of this study are that a rigorously enforced “no-lift” policy results in a lower frequency of manual transfers.
- Facilities should also provide adequate lift equipment.
- An enforced “no-lift” policy & a sufficient number of mechanical lifts should reduce the problem with LBP.