Safe patient handling techniques: does the theory match the practice?

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2015
Moving and Handling

The aim of safe moving and handling is to apply minimal effort by the healthcare provider so that the patient suffers no discomfort or injury.
Safe Patient Handling & Movement Training Programme

Goals

• Provide sufficient understanding and knowledge of manual handling regulations.
• The risks assessment involved and the control measures available.
• Reduce the incidence and severity of musculoskeletal injuries.
• Decrease nursing turnover.
• Reduce costs from these injuries.
• Create a safer environment & improve the quality of life for patients/residents.
• Encourage the reporting of incidents/injuries.
• Create a culture of safety and empower nurses to create safe working environments.
Moving and Handling Teaching Strategy

• Theory

• Discussion

• Practical Demonstrations
What is Lower Back Pain?

- Pain that originates from the spine, muscles, nerves or other structures in the back that can radiate into the lower extremities, such as tingling, burning sensation, dull or sharp ache.

- Causes weakness/imbalance in strength and flexibility in the lower back and abdominal areas.
Lower Back Pain Disorders

- Normal Disc
- Degenerative Disc
- Bulging Disc
- Herniated Disc
- Thinning Disc
- Disc Degeneration with Osteophyte formation
Causes of Lower Back Pain

- Lifting of heavy objects
- Prolonged sitting
- Injury/accident
- Quick movements

Other Causes:
- Muscle spasms
- Decreasing alignment
- Herniated Disc
- Small fractures
- Degenerative Disc Disease (DDD)

- Muscle strains/tears
- Curvature of spine
Lower Back Pain Prevalence

- Back pain is the most common reason for filing workers comp claims.
- 80% of adults will experience LBP.
- Most of the time injury to the lower back happens at work.

Source: National Institute of Occupational Safety and Health (NIOSH)
Accident Statistics

• Largest cause of accidents at work

• 37% Manual Handling

• 19% Slips, Trips and Falls

• 12% Other Causes

• 20% Struck by an Object

• 7% Falling from Height

• 5% Machinery
Sites of injuries caused by handling

From HSE 2005

- Back: 49.3%
- Rest of Torso: 6.6%
- Arm: 10.3%
- Hand/Wrist: 8.5%
- Finger/Thumb: 14.3%
- Lower Limb: 7.7%
- Other: 3.3%
International Statistics

According to American Nurses Association in 2012:

• 52% of Nurses complain of chronic back pain with a lifetime prevalence up to 80%.

• 38% report having occupational-related back pain severe enough to require leave from work.

• 12% of nurses leaving the profession report back pain as a main contributory factor.

• 20% have reported changing to a different unit, position, or employment because of back pain.
NHS Statistics

• 58,000 nurses have back injuries
• 3,600 nurses lost to the NHS each year
• £70 million cost of nurse absence
• £50 million cost of nurse replacement

(John ant, 2015)
Lower Back Pain - Risk Factors

- Heavy manual lifting
- Repetitive movement: lifting/twisting
- Constant vibration
- Poor posture
- Continuous work
- Poor physical fitness
- Low pain threshold
- Weak trunk musculature
- Smoking
- Stressed/depressed
- Pregnancy
- Arthritis
- Obesity
Computer Workstation

Flexibility is the key to an ergonomic workstation that will last in today’s fast changing workplace.

Viewing Distance (Approximate Arms Length)

Display Angle 5° - 20°

Display Height – Eye Level or Lower

Keyboard arms provide flexibility and allow for platform tilt. The arm can adjust for employee height. Trays cannot.

Document Stand

Keyboard Slope 0° – 15°

Mouse near the keyboard at the same height.

Table Height Adjustable

Lumbar Support

Adjustable Arm Rest

Chair Height Adjustment

Sliding Seat Pan Adjustment

5 or 6 Point Chair Base

Task Lamp

Foot Rest

Seat Pan Tilt

Leg Room

Keep the pedestals (drawer or file units) mobile to avoid interference with employee movement

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‘Manual Handling Operations Regulations, 1992 (as amended)’

Avoid ➔ Wherever possible, avoiding a hazardous manual handling situation is always preferable.

Assess ➔ If avoidance is not possible, making a ‘suitable and sufficient’ assessment of the hazards is the next step.

Reduce ➔ By following the Risk Assessment you are reducing the risk of injury to all persons involved.

Training of staff in safer handling techniques, introducing appropriate handling aids and changing work patterns will all help reduce the risk.

Review ➔ Risk Assessments should be reviewed when changes occur.
What is Ergonomics?

- The way we interact with our environment at work, play and rest
- Adapting tasks to fit the employee
- One size does not fit all
- Maximizing your health and comfort by using your body in efficient ways
- Self-evaluation of behaviors and postures
- Recognizing signs and symptoms associated with musculoskeletal disorders
‘Controversial Techniques’

Each of the following moves are deemed to be high risk to both the client and the carer. This is supported by the following evidence:

- Research findings in studies which examine named manual lifting or transfer techniques;

- Published professional opinion in ‘The Guide to the Handling of Patients (4th Edition)’ (NBPA, 1998) and ‘Safe Handling in the Community’ (Back care, 1999);

**Figure 2.6** Underarm or ‘drag’ lift: this can damage the patient’s shoulders and the nurses’ backs
Figure 2.7 ‘Cradle’ or ‘orthodox’ lift: (a) the patient’s head and neck are unsupported; (b) the nurses are carrying the weight on their hands and wrists.
Figure 2.8 ‘Australian’ or shoulder lift: this can damage the patient’s chest wall and the nurses’ backs
Figure 2.9 Through-arm lift: this can damage the patient’s underarms and the nurses’ backs.
Figure 2.10 Three-person lift: the patient could fall, or if a nurse stumbles, uneven loads would be transferred.
Figure 2.12  Front assisted transfer: this could damage the nurses’ neck or either person could fall.
Aim

The aim of this study was to survey the patient moving and handling experiences of pre-registered student nurses and assess episodes of self-reported back pain experienced during their exposure to clinical practice.

Study Sample: 230

Response rate: 89%

Study design: Cross sectional descriptive study
Table 1 Number of student nurses experiencing episodes of back pain during their clinical practicum placement. Ratios between groups were compared using Chi-squared analysis.

<table>
<thead>
<tr>
<th></th>
<th>Reporting of pain during clinical placement</th>
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<tbody>
<tr>
<td></td>
<td>Pain (n=119)</td>
</tr>
<tr>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
</tr>
<tr>
<td>Female</td>
<td>109</td>
</tr>
<tr>
<td>Year of study</td>
<td></td>
</tr>
<tr>
<td>2(^{nd})</td>
<td>18</td>
</tr>
<tr>
<td>3(^{rd})</td>
<td>46</td>
</tr>
<tr>
<td>4(^{th})</td>
<td>55</td>
</tr>
<tr>
<td>Have you ever been asked to physically lift / move a patient without equipment?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>81</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
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<tr>
<td>Was equipment available?</td>
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<tr>
<td>Yes</td>
<td>32</td>
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<tr>
<td>No</td>
<td>60</td>
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<tr>
<td>Unsure</td>
<td>24</td>
</tr>
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**Figure 2:** Site of musculoskeletal pain experienced by participants whilst working in clinic experience. Percentage of participants who reported pain while in the clinical practice as part of their nursing training.

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**Figure 3:** Frequency of reported usage of un-safe techniques for patient transfer used in the clinical practice of student nurses.
Figure 4: Frequency of reasons considered by participants to be the main barriers to addressing safe patient handling in the hospital facilities they were exposed to.
Responsibility

Reduction of musculoskeletal injuries lies within our hands.
Nursing strategic plan

A comprehensive approach

Nursing leadership

Nursing education

Nursing services

Nursing regulations

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Recommendations: What should we do?

1. Review organizational and educational policies and procedures. Written safe patient handling policy/No lift.


3. Make the right choice and standardize the risk assessment and assess whether all areas of risk are addressed within the care plan.

4. Implement educational programmes in the clinical areas for specialized training of safe moving and handling patient/objects that are structured, organized, comprehensive, and directed at all levels of nurses, health care providers and consider time for Staff to attend In-Services.
Recommendations: What should we do?

5. Review equipment in place to ensure the product type has demonstrated effectiveness in reducing an individual’s risks.

6. Collaboration of nurses in implementing a safe moving and handling training programme in the clinical area

7. Regular monitoring and evaluation of the intervention.

8. Provide adequate staffing. Staffing level/ratio to patient

9. Rewards and recognition to nursing for achieving goal.
References


