

Factors Influencing Registered Nurses and Nursing Assistants Use of Mechanical Lift Devices

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The Use of Mechanical Lifts in Preventing Workplace Injuries in Nursing Staff

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6 Acute Care

Introduction

Nurses are highly susceptible to work place injuries related to lifting and transferring patients. These injuries cause increased costs and decreased nurse satisfaction leading to negative patient outcomes. Evidence shows that mechanical lifts are effective in preventing these injuries, however, multiple barriers have been identified as causes of noncompliance.

PICO

P: Medical-Surgical Nursing staff

I: Use of Mechanical Lifts

C: Nursing Staff Transfers Without a Lift

O: Nursing Staff Injury Rates

Question: Does the use of mechanical lifts when transferring patients affect staff injury rates?

Methods

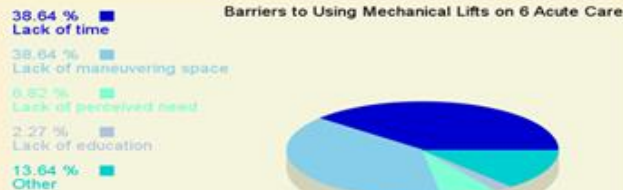
PubMed, EBSCOHost, CINAHL were used to conduct a literature review using the key terms:

- Patient/mechanical lift
- Injury prevention
- Workplace injury

A survey was also conducted on a medical floor with 5 multiple choice questions.

Survey Results

- 44 respondents total: 32 RNs and 12 CNAs
- 20% of respondents have not received lift education in the past year
- 81% have used a lift 2x or less in the past month
- Lack of time and lack of maneuvering space were identified as the greatest barriers on the floor

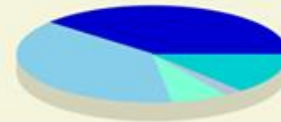


Literature Results

A literature review confirmed the prevalence of high injury rates in nursing related to manual patient transfers and the effects on both increasing hospital costs and decreasing nurse satisfaction. Despite the evidence, several barriers to use of lifts have been found to include:

- Lack of time
- Lack of education
- No formal policy
- Lack of maneuvering space
- Lack of perceived need

Limited use of a lift results in an increase in nurse sick time and need for worker's compensation. Negative patient outcomes such as increases in rates of falls, pressure ulcers and skin tears occur when manually lifting patients.



Recommended Interventions

The review of literature recommended incorporating the following interventions into practice to promote the use of mechanical lifts:

- Implementing a zero lift policy (articles 2, 3, 4, 5)
- Increasing staff education and new hire education (articles 2, 4)
- Yearly competencies for staff (article 2)

Conclusion

This topic is difficult to research since the negative outcomes from manual patient lifting are difficult to measure (staff discomfort, fatigue, and patient comfort). However, there is quantifiable evidence that shows that the use of mechanical lifts helps to maintain the safety of both health care staff and patients. Further research is recommended on how a "zero lift policy" would impact workplace injuries. Incorporating mandatory training during nursing orientation of new hires and yearly competencies that require demonstration may also increase the use of lifts. An increase in compliance will need to come from a raised awareness of this issue and a shift in nursing culture.

References

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Background

2013. ANA published standards with goal of preventing/minimizing healthcare worker and recipient injuries.

2015. OSHA announced new monitoring program for integration of safety practices in healthcare institutions

2016. Reintroduction of the Nurse and Health Care Worker Protection Act, (H.R. 4266/S. 2408).



Purpose

This study explored attitudes, beliefs, and experiences of registered nurses (RNs) and nursing assistants (NAs) related to routine use of mechanical lift devices



Methods

Qualitative study with focus group methodology

- Four 60-minute focus groups
- Two groups with all RNs (n=14)
- Two groups with all NAs (n=11)

Methodology

- Each focus group was audiotaped and transcribed verbatim
- Transcripts coded, repeating concepts identified, and codes collapsed into themes and subthemes

Concepts maps developed to illustrate relationships and guide thematic analysis



Results

Themes

- Barriers to use
- Perceived risk
- Coordination of care



Results: Sub-Themes

Barriers to use

- Physical barriers
- Knowledge and skills
- Unit culture



Physical Barriers

P4: The only way for us to get this into the room is to move the recliner chair all the way to the window, and we get sandwiched in...It's just that tight. It is so tight. Inches. And the lifts are really big. The legs go in and out ... they're long. It's tricky. So you gotta be creative. Trash can goes in the bathroom. Bedside table goes in the bathroom.



Results: Sub-Themes

Perceived risk

- Patient risk
- Perceived risk to self



Patient Risk

Well if (the patient) can go to the chair with a 1 or 2 assist, and then back to bed, they need the lift...now they're so tired and their legs are like jello.

.....(Sometimes they'll say) No. No. No. I'm scared. That's why communication is the important thing. We have to tell them and guide them ... step by step just to calm them down.



Perceived Risk to Self

I've only been a nurse for two years and three months and after a year I hurt myself...So I hurt my shoulder and I let it go for six months but every time I worked on pulling patients up it just kept hurting and I ended up getting therapy physical therapy for three months. And they said it's probably from moving patients and moving them up which is why I joined a gym – to get better mechanics and muscle – all of it together.

Sometimes you're in a hurry. I just had a (patient) and I said "pull on me and let me get the pillow down behind your shoulders" thinking well surely it wouldn't be that much of a strain. And even just that little (bit), and it was more like a gesture, and I didn't hurt it but I felt (I could have) – so yeah I'm afraid. I can't afford a back injury.



Patient Factors

Of our 12 patients, 9 of them are geriatric.., some can walk with their walkers, they can do what they need to do but we have a few of them that are bed bound right now because we're waiting for PT to come (to evaluate) Their level of skill (needs) has changed from when they left their home. There's a lot of different factors that go into getting them up.



Results: Sub-Themes

Coordination of care

- Assessment of patient's needs and abilities
- Interprofessional care coordination



Assessment of patient's needs and abilities

The initial assessment by therapy staff is especially important... *at least the first initial one. And when they come back and say, ok this person really can't bear any weight on these legs, we need to get a lift then that's what we do.*



Interprofessional Care Coordination

I just think they (therapy staff) are more expert at deciding whether that patient can safely stand or not. I don't want that responsibility if the patient falls or collapses on me.



Conclusions

New knowledge about complexity of decision making among RNs and NAs in use of mechanical lift devices.

- Lack of RN confidence in assessment of patient's physical abilities.
- Need for Inter-professional Coordination of Care.



Professional Practice Model

- New knowledge, innovations and improvements

Professional Practice Model and Care Delivery System



Professional Practice Model and Care Delivery System



Professional Practice Model and Care Delivery System



Safe Patient Handling & Mobility Program: Opportunities and Next Steps

Direct Financial Benefits

- Reduced pressure ulcers
- Reduced falls
- Reduced workers compensation
- Reduced lost & restricted days

Indirect Financial Benefits

- Reduced turnover
- Increased staff satisfaction

Program Cost

- Equipment cost
- Training cost



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