

# Enhancing Compliance to the Seated Portion of a Hospital Mobility Bundle:

## A Mixed Method Case Study

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### Purpose

- To characterize nursing perceptions and attitudes through description of consistent themes following the pilot of a new type of Seated Positioning System (SPS) device in care of the out of bed (OOB), seated patient

### Background

- Use of seating and mobility equipment aid in diminishing patient and employee injury risk and improve safe patient handling and movement (SPHM)
- Seated patients become a safety risk for personal injury due to: (a) risk for falls from transferring, slouching, or upright sitting compliance; (b) chair-slouching that could lead to difficulties in breathing and swallowing; and (c) noncompliance in following safety protocols when sitting OOB
- The literature is sparse with research devoted exclusively to mobilizing and repositioning seated patients for purposes of outcome improvement. Caregivers can apply variable one- and two-person techniques, and they rely upon whatever equipment or whomever is available to help slide the slouched patient up: chair linen, patient extremities, other lift devices, etc. These movements are familiar to nurses, however, they infer an associated degree of injury risk due to variability in process, inconsistencies in practice, and incidents of “work-arounds”
- It is suggested that utilization of SPS devices promotes less caregiver exertion to properly position the seated patient and keep them upright, while promoting safety and use of proper body mechanics in a consistent and standardized manner, when repositioning the seated patient
- Bundling care practices helps to ensure compliance in procedure and ensures better patient outcomes through the use of fewer steps or combined approaches; these are more enticing to the caregiver and promotes better care compliance

### Seated Positioning System (SPS) Device

- A SPS device is a standard seating and repositioning system promoting SPHM for caregivers and maximal upright (90-degree) sitting of patients in straight-back chairs
- It aids in reducing the risk of difficulty breathing, aspiration, and falls in patients as it has a one-way, fabric-adhesive component that works to keep patients from slouching
- The SPS device also has an air-inflated cushion providing support, comfort, and a pressure-reducing, skin-healthy microclimate for seated patients

### Setting and Study Design

- Two clinical nursing units were chosen for study in a 431-bed, acute care Magnet hospital in Central NY, USA:
  - a post-cardiothoracic surgery step-down care/telemetry unit and
  - a medical-surgical unit specializing in care of the tracheostomy patient requiring ventilator support
- A mixed method, case study: pre- and post-interventional design was conducted
  - Qualitative data: pre- and post-SPS implementation focus group interviews
  - Quantitative data: survey questions with Likert-type response categories administered in real time to nurses during pilot of the SPS device over a four week period in third quarter 2013

### Method

- QUALITATIVE:** A series of standardized, open- and closed-ended questions were asked of nursing focus groups pre- and post-SPS use

#### Pre-intervention Interview Questions:

- What is it like to get a patient OOB to the chair?
- How do you keep a patient safe from harm when they are up in a chair?
- Do you find patients sit upright by themselves when they are in a chair?
- How often do you have to pull a patient up into a seated position in the chair?
- Do patients ever fall out of a chair?
- Tell me about a time when you ever injured yourself pulling a patient up in the chair.

#### Post-intervention Interview Questions:

- When you first heard about the SPS device, what was your reaction?
- What was it like for you when you used the SPS device?
- What benefits exist by using a SPS device?
- What barriers or challenges exist when using the SPS device?
- Can you describe how using the SPS device will be viewed by healthcare?
- If you were talking to another co-worker about using a SPS device, what would you tell them?

- QUANTITATIVE:** A Likert scale survey was administered to nurses to better understand the impact of the SPS device on their practice and attitude

#### Likert Questionnaire Items:

##### The Seated Positioning System (SPS) device:

- .....prevents patients from sliding out of the chair position
- .....reduces strain on my wrists, shoulders, and back while repositioning a patient in their chair
- .....promotes fall-prevention
- .....gives patients a sense of feeling more comfortable
- .....promotes a pressure ulcer-reducing environment
- .....reduces the need for frequent boosting of patients up in their chairs
- .....reduces the physical effort required to reposition my patient back in the chair
- .....increases the ease in following my facility's patient transfer and mobility protocol



### Data Analysis

- Narratives from pre- (N = 38) and post-intervention interviews (N = 36) were collected using digital, audio recording with manual transcription along with researcher field note documentation and narrative reflection as applicable. Content analysis was applied to the interview dialogue to track for code repetition, thematic emergence, dominant patterns, and categorical relationships
- Descriptive and inferential statistics (correlation) were applied to survey data (N = 39) with significant findings

### Results

Several dominant, categorical themes and significant relationships emerged from the mixed method analysis. The research evidence exposed the following:

#### Pre-Intervention Focus Group Interviews

Theme	Exemplars
Chronic risk of injury with [regular] patient handling	"We saw him sliding out of the chair and onto the floor. We got him to stop sliding, but he was willfully being resistant because he would not let us [physically] help him up]... Whatever is underneath them is what is used to boost [and that is not always helpful nor safe]."
Effect of personal injury on caring practice	"Oh, I won't [lift] anymore after hurting myself... Nope. I will never boost someone in their bed from now on, unless their head: it is pointed down to the ground [(Trendelenburg)] so I do not hurt myself.... My back is my job."
Counter-productive care and the OOB experience	"Yeah, it is easier to get them back to bed rather than pull them around and try to keep them safe."
Caring for the non-compliant and combative patient	"Restrain them...[If they are] agitated, trying to move, or get out [of bed on their own], I try to put them back [lounging in a recliner] where they are not going to slouch forward."

#### Post-Intervention Focus Group Interviews

Theme	Exemplars
Better SPHM as a result of using a SPS device in nursing practice	"It was easy to slide patients [up in their chair, and they] could not slide out of the seat...I think it will be good...for patients...Makes your job easier....We have more leverage so we are not going to get hurt....It is better for us as well....It saves your back [from injury]."

#### Pearson Correlations

Item A	Item B	r(37); p = .00
The more patients did not slouch in their chair from using the SPS device...	the greater the nurse's comfort level: likelihood to not strain or injure themselves using the product increased	.80
	the more fall prevention increased	.84
	the more nurses felt the SPS device was easy to use	.82
The greater the nurse's comfort level: likelihood to not strain or injure themselves when using the SPS device increased...	the less they needed to reposition patients in their chair	.89
	the greater their compliance in following facility transfer protocols	.86
	the easier it was to reposition a patient back in their chair	.82
As fall prevention increased ...	the more nurses felt the SPS device was easy to use	.84
The more nurses did not have to reposition the seated patient...	the greater their compliance in following facility transfer protocols	.88
	the more nurses felt the SPS device was easy to use	.81
The more compliant nurses were in following facility mobility and transfer protocols...	the more nurses felt the SPS device was easy to use	.82

### Discussion

- Repositioning the seated (and especially non-compliant) patient without a mobility device puts the employee at more risk for injury and is viewed as counterproductive to nursing's perception of better practice
- Repositioning seated patients with a SPS device is physically easier: it provides nurses with a more consistent, standardized, reproducible, and dependable way to promote compliance in care, practice, mobility, SPHM, and outcomes—with less risk for injury to nurses
- Triangulation of converging data (All eight survey items scored favorably with at least 68% of respondents) suggests the following: nurses prefer the use of a SPS device over traditional efforts of lifting and pulling patients up in their chairs because less effort is required and many times, fewer staff are needed to reposition the slouching patients
- Nurses felt greater compliance in following organizational SPHM and patient mobility policies because the SPS device was easier to use
- When using the SPS device, nurses felt it contributed to aiding in falls and pressure ulcer prevention as well, due to its safety-bundled approach

### Conclusion

- This study suggests nurses are more likely to use a SPS device in practice, because it is easier to use, and it promotes SPHM in a bundled or “trifecta” approach in safety for both patients and staff: falls prevention, pressure ulcer prevention, and employee injury prevention
- As an adjunct to better nursing practice for many, using an SPS device can improve SPHM, ease and efficiency of patient care, and compliance with organizational policy and procedure: focusing on injury reduction and outcome improvement for every party involved