



An Analysis of Factors that Contribute to Falls in Select Outpatient Procedural Settings



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Brandi Rico, MSN, RN-BC

Clinical Program Coordinator, Office of Licensure, Accreditation and Regulation (OLAR)

INTRODUCTION

- Globally, an estimated 424,000 falls occur each year, making falls the second leading cause of death related to unintentional injuries (World Health Organization [WHO], 2012).
- The Centers for Disease Control and Prevention (CDC) reported in 2010, falls among older adults cost the U.S. healthcare \$30 billion in direct medical costs when adjusted for inflation (2014).
- The literature in regards to falls in inpatient settings and community dwellings of individuals who are 65 years and older is abundant. However, the literature pertaining to falls in outpatient procedural settings is deficient.

PURPOSE

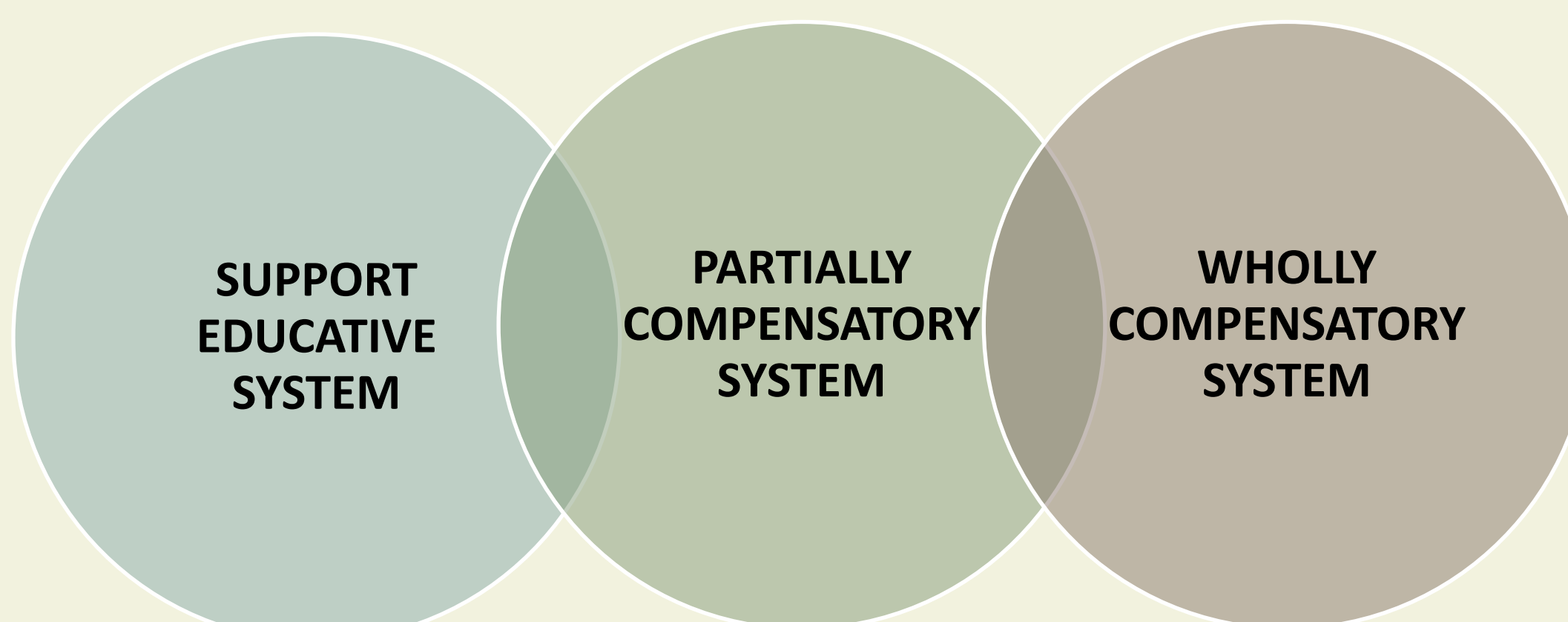
The purpose of this project is to answer the following research question:

What factors contribute to falls in select outpatient procedural settings?

THEORETICAL FRAMEWORK

Dorthea Orem's Self-Care Deficit Theory of Nursing

- The outpatient procedural setting poses a unique situation in that the patients' ability to care for themselves is dynamic and changes throughout the visit.
- The nurse may provide care to patients in all three components of the theory of nursing systems.



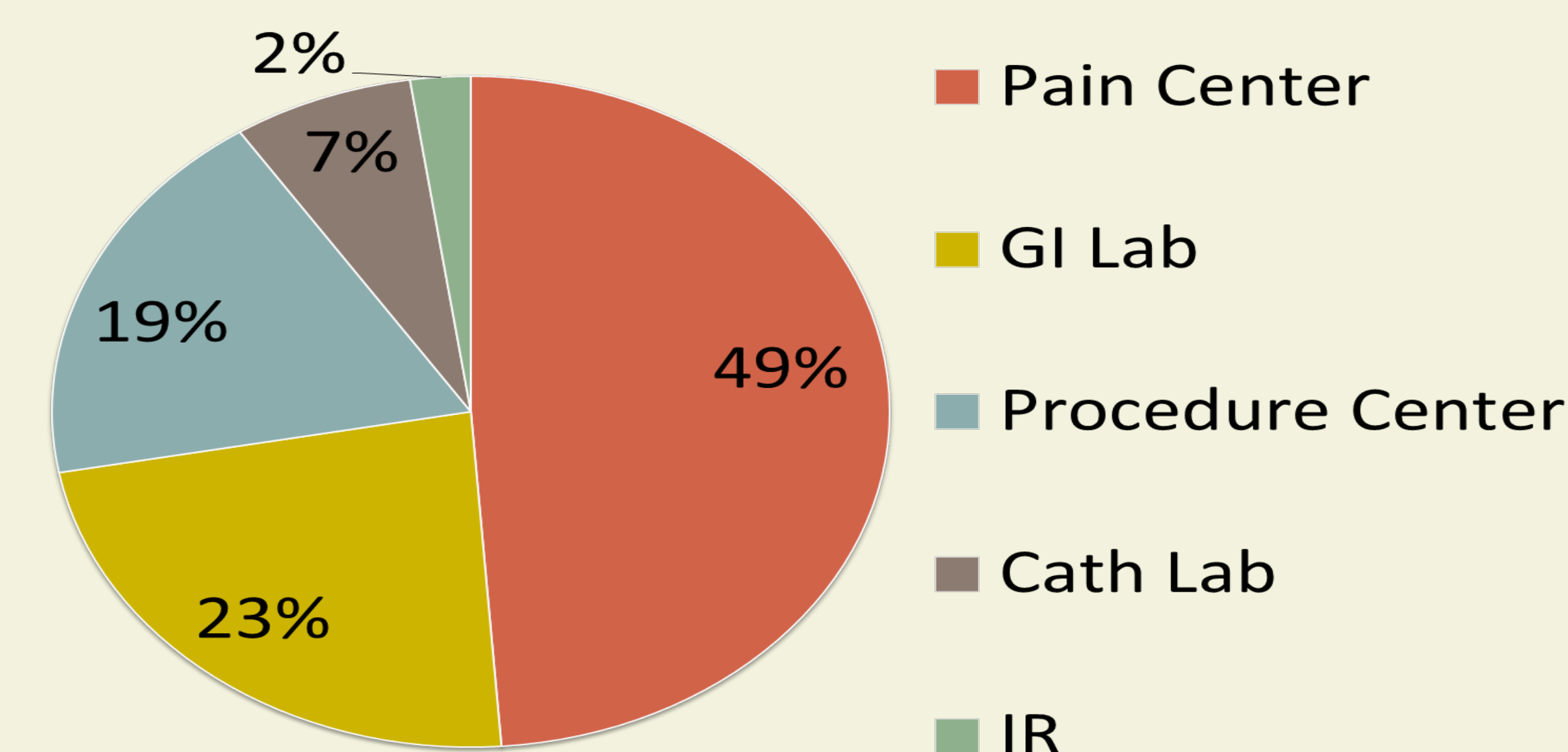
sciencegraphics@sbcglobal.net

METHODOLOGY

- **RESEARCH DESIGN:** A quantitative, descriptive, correlational study was used to analyze five years of retrospective data.
- **SETTING:** This study took place at a large, metropolitan academic hospital in the Los Angeles area and examined six procedural areas: The Procedure Center, Interventional Radiology (IR), The Cardiac Catheterization Laboratory (Cath Lab), The Pain Center, The Gastrointestinal Laboratory (GI Lab), and the Bronchoscopy Laboratory (Bronch Lab).
- **PARTICIPANTS:** All falls document into the Medical Information Data Analysis System (MIDAS) over approximately a five year time frame (May 2009 to August 2014).
- **RESEARCH TOOLS:** The data was received de-identified and was entered into an Microsoft Excel® spreadsheet. The data was analyzed using Statistical Packages for Social Sciences® (SPSS) program.

FINDINGS

- A total of 3,596 falls were reported hospital wide from February 2008 to September 2014.
- Of these 3,596 falls, 43 falls occurred in procedural areas.
- The Bronch Lab did not report falls during this time period and was therefore excluded from this analysis.
- **Figure 1; Percentage of Falls in Five Select Procedural Areas**



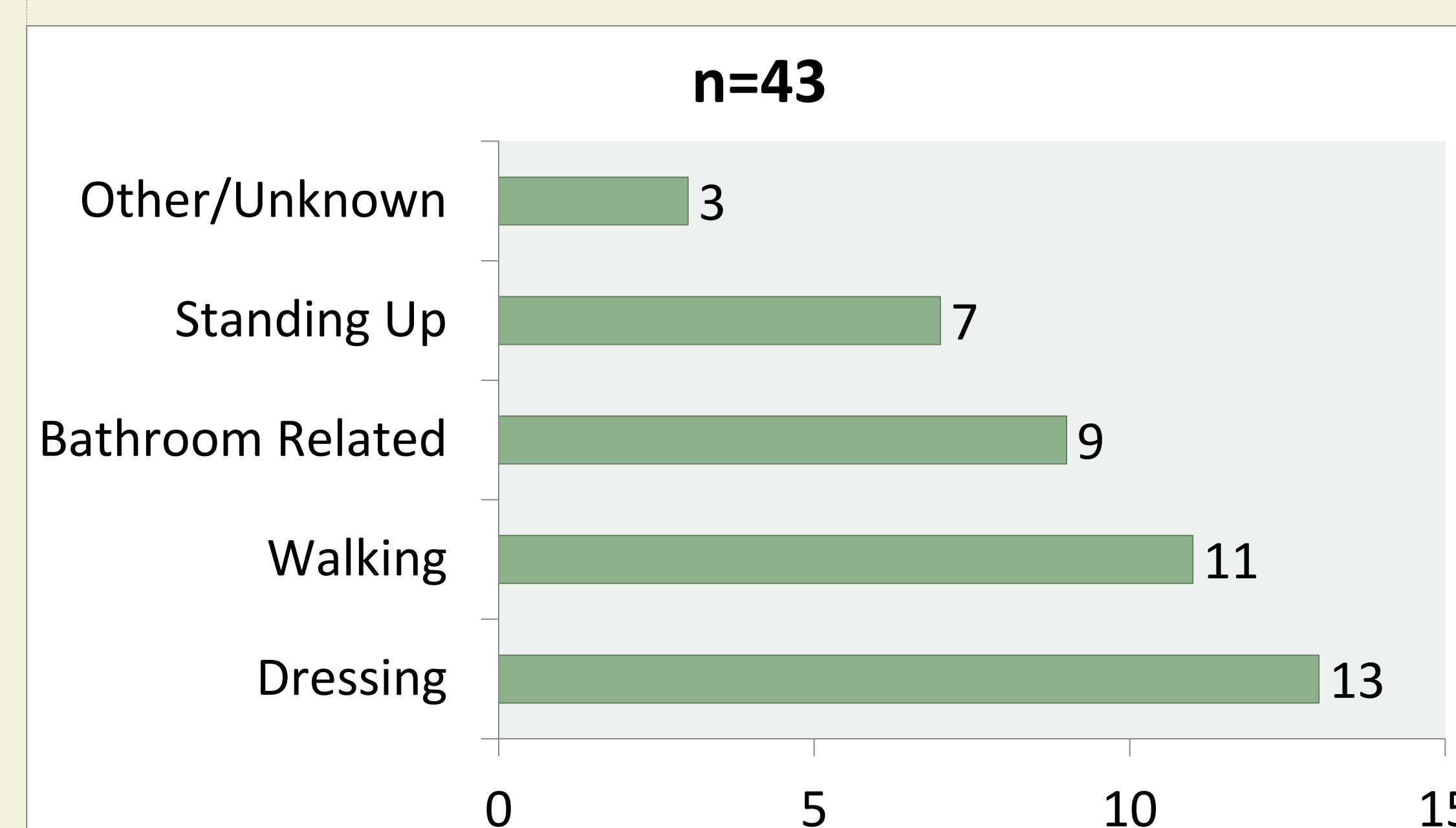
RESULTS

- **Figure 2: The trend for injury is more likely in bathroom related falls and standing up than in the patients getting dressed but this finding is not statistically significant**

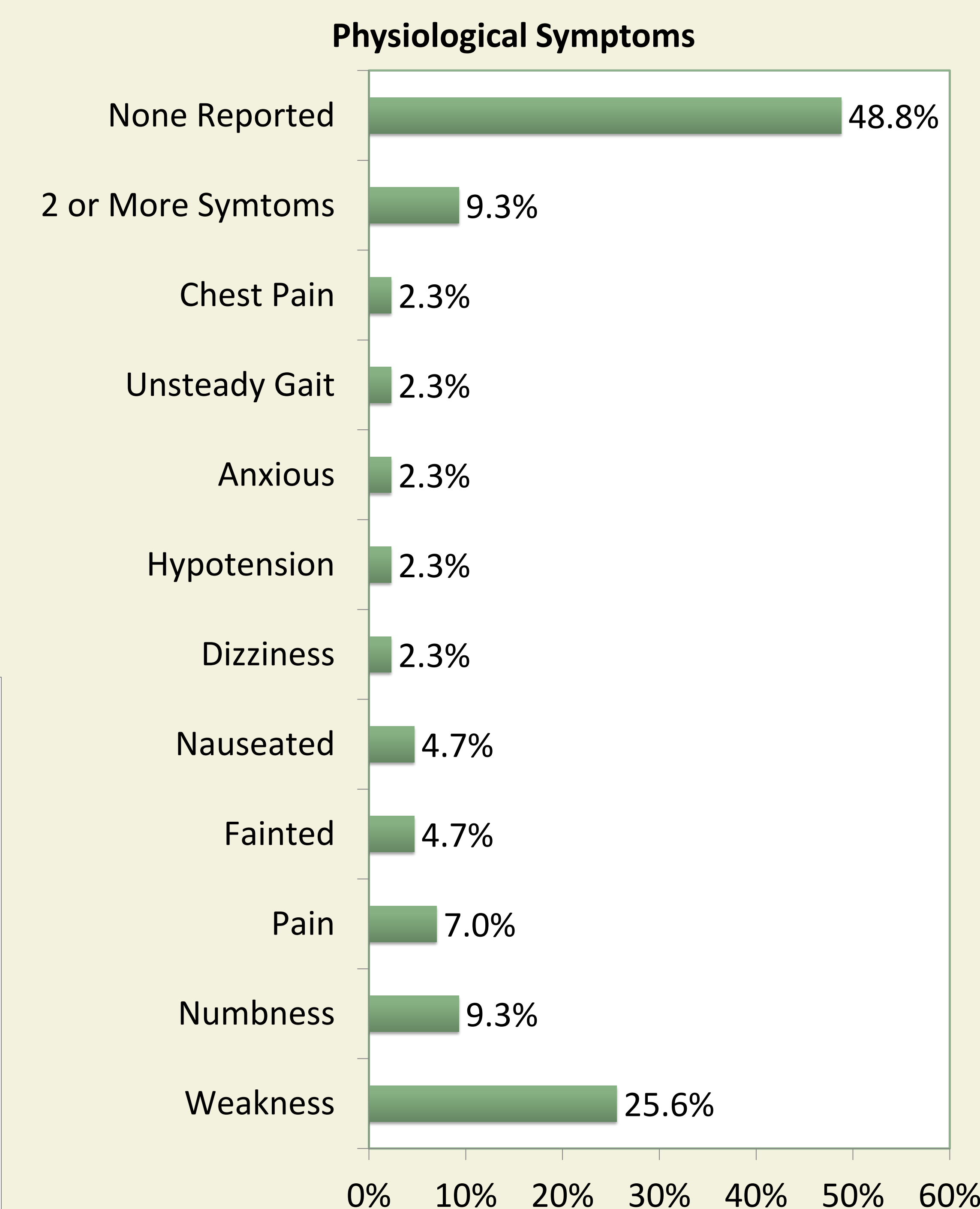
Chi-Square= 6.19, df=4, p=0.18

ACTIVITY	NO INJURY	INJURY OCCURRED
Dressing	n=12 92.3%	n=1 7.7%
Walking	n=7 63.2%	n=4 36.4%
Bathroom Related	n=5 55.6%	n=4 44.4%
Standing Up	n=4 57.1%	n=3 42.9%
Other/Unknown	N= 3 100%	n=0 100%

- **Figure 3: Patient's activity related to the fall**



- **Figure 4: Physiological symptom reported by the patient related to the fall**



DISCUSSION

- Although more falls occurred while the patient was dressing (n= 13, 30.2%), more injuries related to falls occurred when the patient was using the bathroom (n=9, 20.9%) and standing up (n=7, 16.3%).
- Of the patients who reported a physiological symptom associated with the fall, weakness was reported by 11 patients (25.6%).
- Equipment accounted for 11.6% (n=5) of reported falls. Equipment included: crutches (n=1), gurney rail malfunction (n=1), step stool (n=2) and tight space (n=1).
- Although use of ambulatory aids were not consistently reported, 9 patients (20.9%) were using an ambulatory aid at the time of the fall and 6 patients (14%) had ambulatory aids but were not using them at the time of the fall.
- For the majority of patients a history of falls was not reported (n=38, 88.4%). However, 3 patients (7%) had a history of falls and 2 patients (4.7%) had no history of falls.

IMPLICATIONS/RECOMMENDATIONS

- **Practice:** Nurses in procedural areas must continually assess patients for fall risk throughout the continuum of the procedure.
- **Education:** Teach nurses in all areas of practice to assess for fall risk.
- **Research:** Further research is needed to analyze factors that contribute to falls in ambulatory settings.
- **Organization:** Falls in procedural areas may be under-reported and therefore difficult to analyze. The importance of reporting any fall or near-miss should be encouraged for all staff.

ACKNOWLEDGEMENTS AND CONTACT

A heartfelt thank you to Harriet Aronow Ph.D for all of your expertise guidance and support.

For additional information on this project , please contact Brandi.Rico@cshs.org
Cedars Sinai Medical Center
Los Angeles, CA

