

# Scoping Reviews of Rehabilitation Outcomes for Patients with Burn and Spinal Cord Injury



Lynn H. Gerber, MD,<sup>1,2</sup>

Haley Bush, MSPH,<sup>2</sup>

Drasti Patel, MS,<sup>1</sup>

Steven Garfinkel, PhD,<sup>3</sup>

Cindy Cai, PhD<sup>3</sup>



2. Betty and Guy Beatty Center for Integrated Research, Inova Health System, Falls Church, VA, United States.

3. American Institutes for Research, Washington D.C., United States.

### BACKGROUND

- Function, participation and societal integration are critical outcomes for clinical rehabilitation research (CRR).
- Functional outcomes are underreported in CRR.
- Scoping reviews provide a systematic approach for evaluating a broad literature review to determine what has been investigated, how outcomes are measured and where gaps for future research exist.

### AIM

- To assess the frequency with which CRR outcomes include measures of impairment, function, functional limitation, participation or societal integration in patients with either burn injury (BI) or spinal cord injury (SCI).
- Determine the setting where research had been performed.

### METHODS

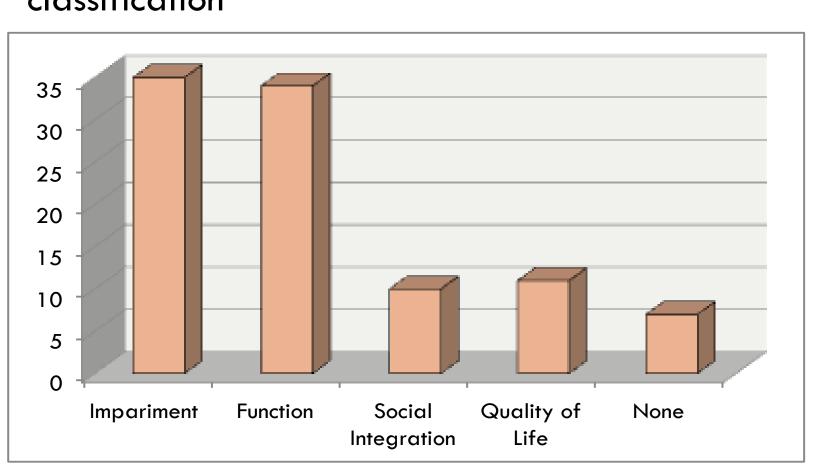
- We followed guidelines for scoping reviews suggested by Arksey and O'Malley.
- We performed a search in both PubMed and Medline during 1990-2016 for BI and SCI using the following search terms: ((traumatic spinal cord injury) AND rehabilitation) AND functional outcomes; ((traumatic spinal cord injury) AND (rehabilitation or physical therapy or occupational therapy)) AND outcomes AND (function or functional or mobility) and similar for burn injury.
- Exclusion criteria: not peer reviewed, foreign language, nonhuman, did not measure function or participation.

#### RESULTS

- BI: 73 met intended criteria of which 31 were intervention and 42 were non-intervention studies.
- SCI: 545 met intended criteria, 235 were intervention and 310 non-intervention studies.

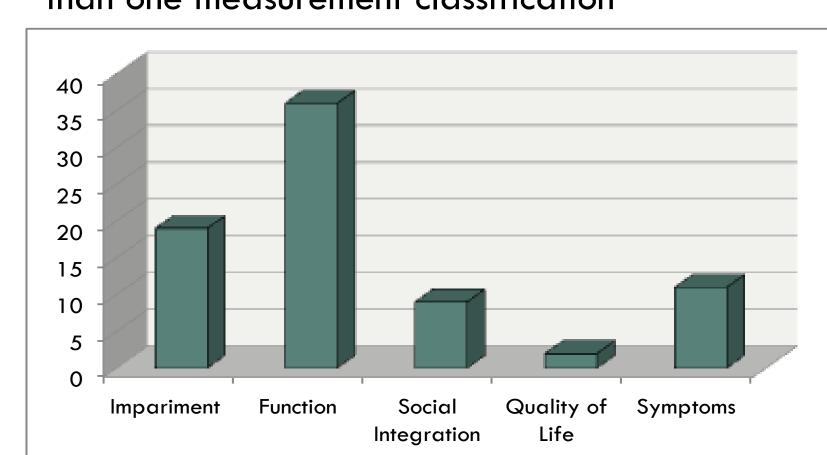
### BURNS MEASUREMENTS USED IN ALL ARTICLES (N=73)

 Articles can include more than one measurement classification



## SCI MEASUREMENTS USED IN STANDARD EVALUATION GROUP (N=144)

□ Total of 59 unique instruments, which can use more than one measurement classification



### FREQUENCY OF SPECIFIC MEASUREMENT CLASSIFICATION

Burns Measurement:
Intervention Group
N=22

Impariment
only

Function only

Social
Integration

SCI Measurement:
Standard Evaluation Group
N=144

Impariment
only
Function only

Social
Integration

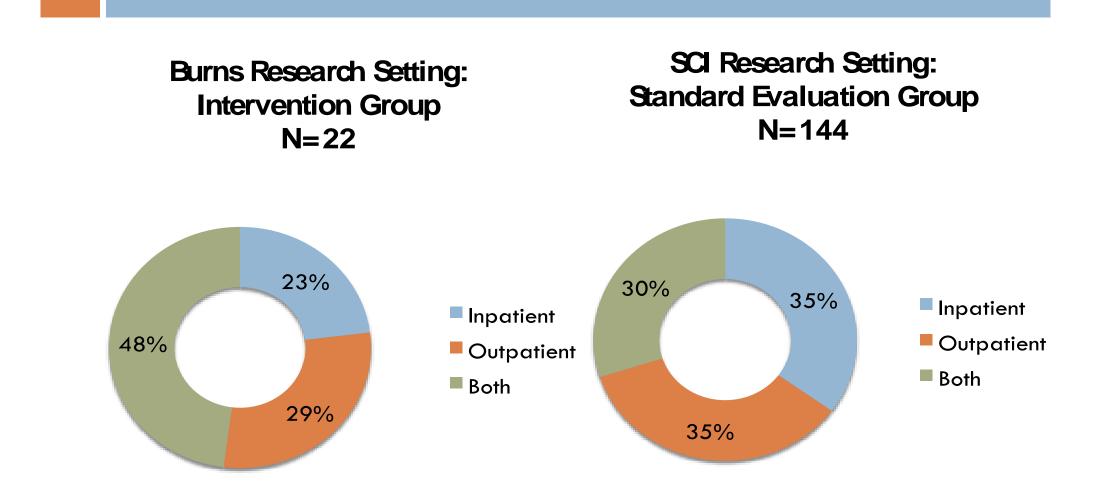
T5%

Quality of Life

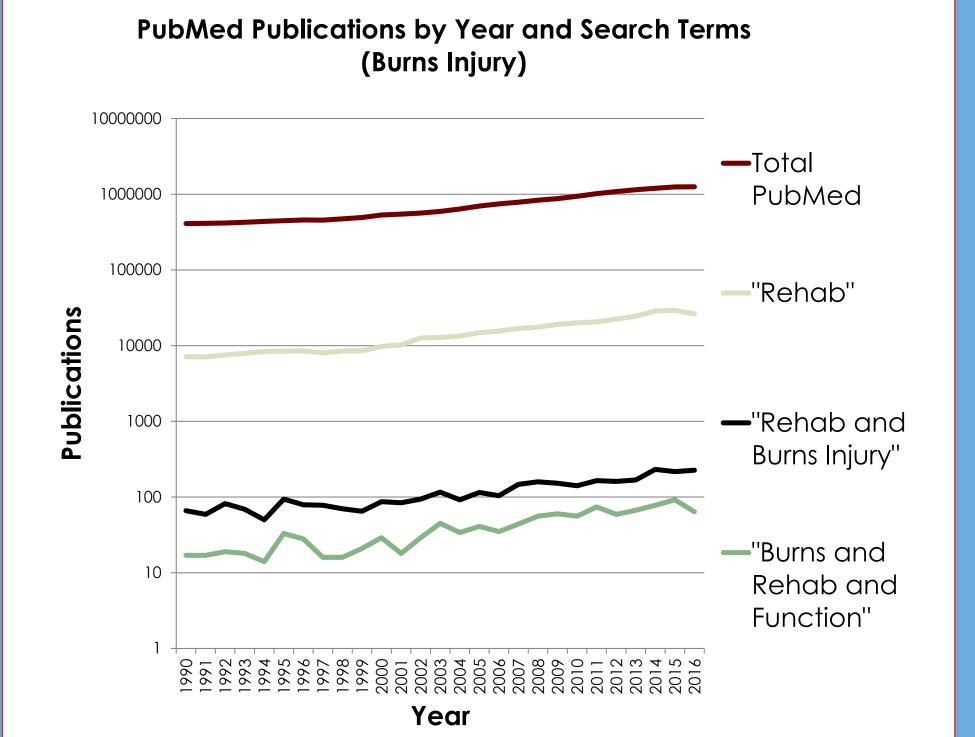
### FREQUENCY OF RESEARCH SETTING ARTICLE PUBLICATION

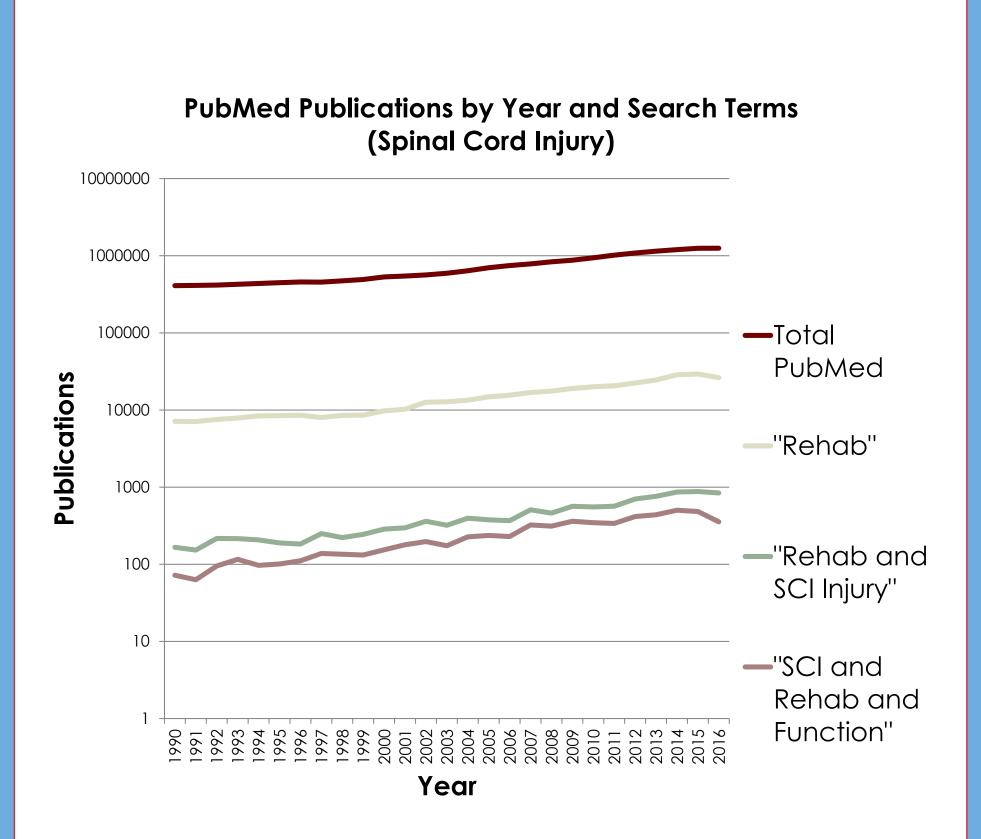
Symptoms

only



#### **PUBLICATION TRENDS: BI VS. SCI**





#### SUMMARY

- Outpatient studies represent 29-35% all published CRR.
- 45% of published studies are intervention trials.
- Fewer than 15% of published intervention studies utilize measures of social integration or participation.
- There is a trend toward an increasing number of functional measures being used.
- No consensus for the use of specific standardized measures in BI.
- FIM most frequently used for studies involving patients with SCI.
- A great majority of studies are inpatient based and 50% are inpatient to outpatient follow-up.