# Quality of Life after Trauma

Karen J. Brasel, MD, MPH
Professor of Surgery, Program Director
OHSU

## Quality of Life

- That attribute of human existence that is judged in terms of each person's <u>own</u> <u>values</u> and that reflects current functional status and achievement.
- Nothing to do with a surgical value judgement or a surgeon's value judgment

#### Patient-centered

## Important Domains in HRQOL

- Physical symptoms
- Psychological symptoms
- Cognition
- Social relationships
- General health/health change
- Economic demands
- Hopes and expectations
- Spirituality

## Challenges with QOL assessment

- Which instrument?
- When to measure?
- What is "normal"?
- What is modifiable?
- Overall or specific target areas?
- Requires follow-up

### Which instrument?

- General
  - Populations
  - Less responsive to change
  - Better psychometric properties
  - Better comparisons

- Disease-specific
  - Individuals
  - More responsive to change

#### Domains

# SF-36

#### Domains

Physical Function (PF)

Role

Bodily

Pain (BP)

Summary Measures

Physical

Physical Component

Mental Component

Mental Health (MH)

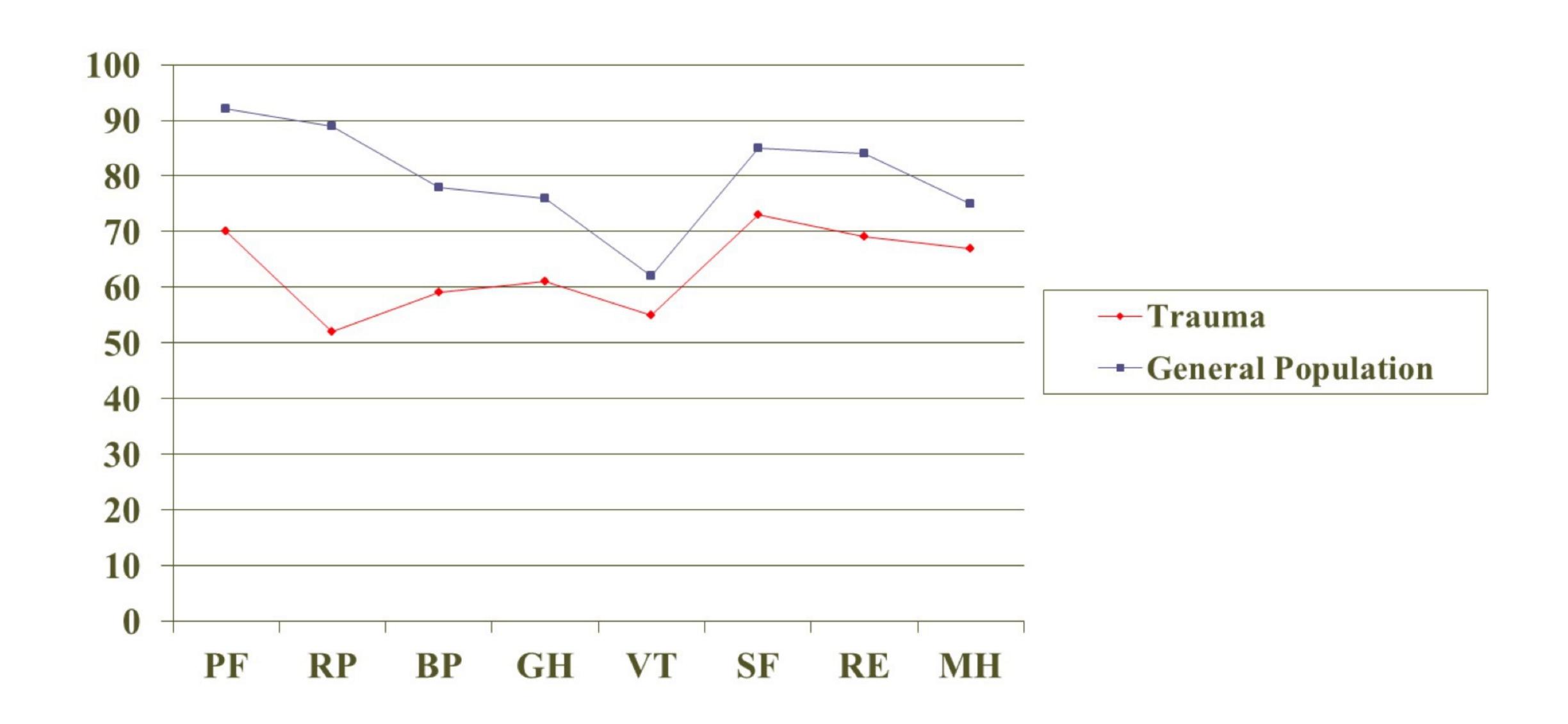
Emotional (RE)

Social

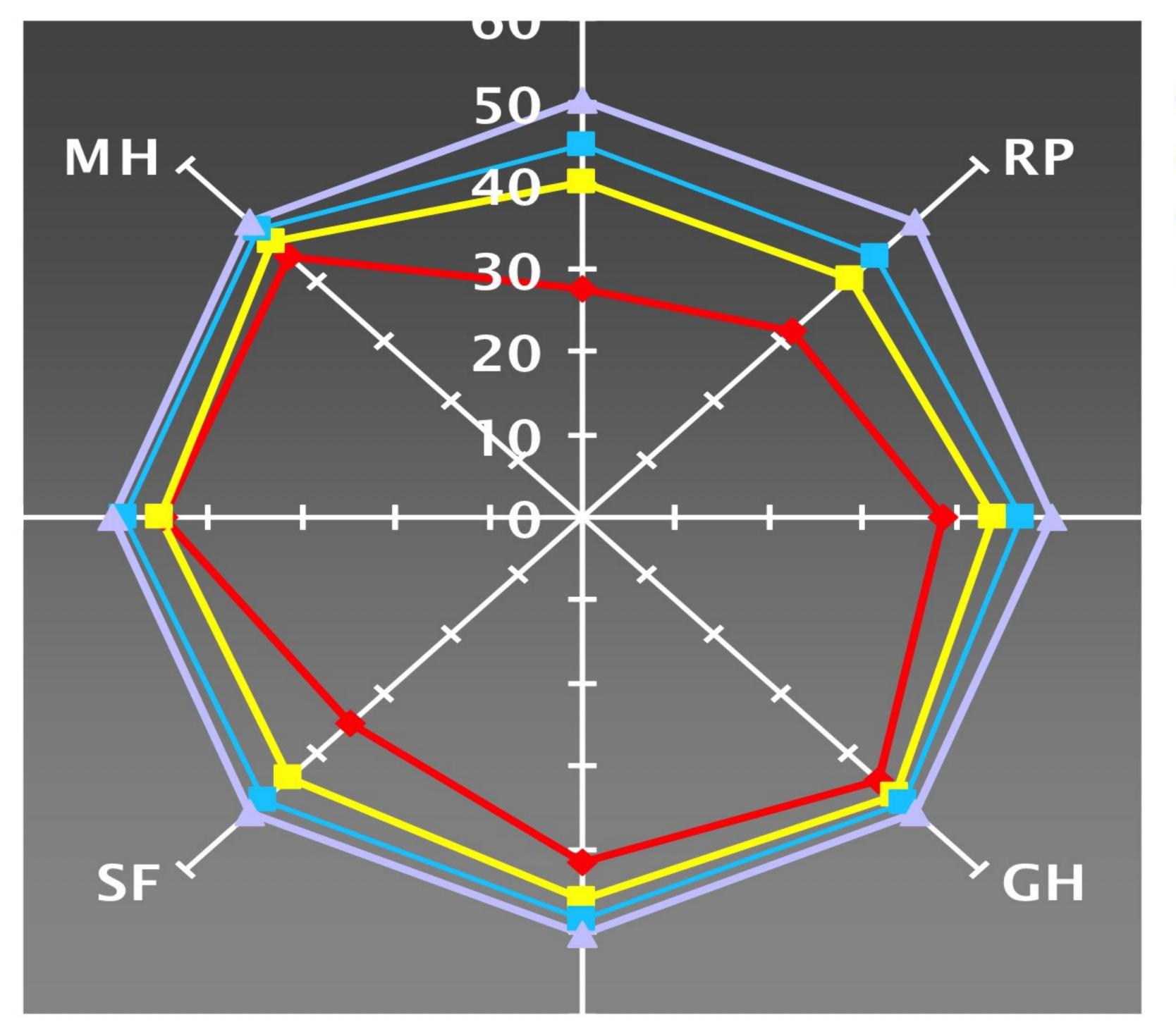
General Health (GH)

Scoring proprietary

## Quality of life after trauma

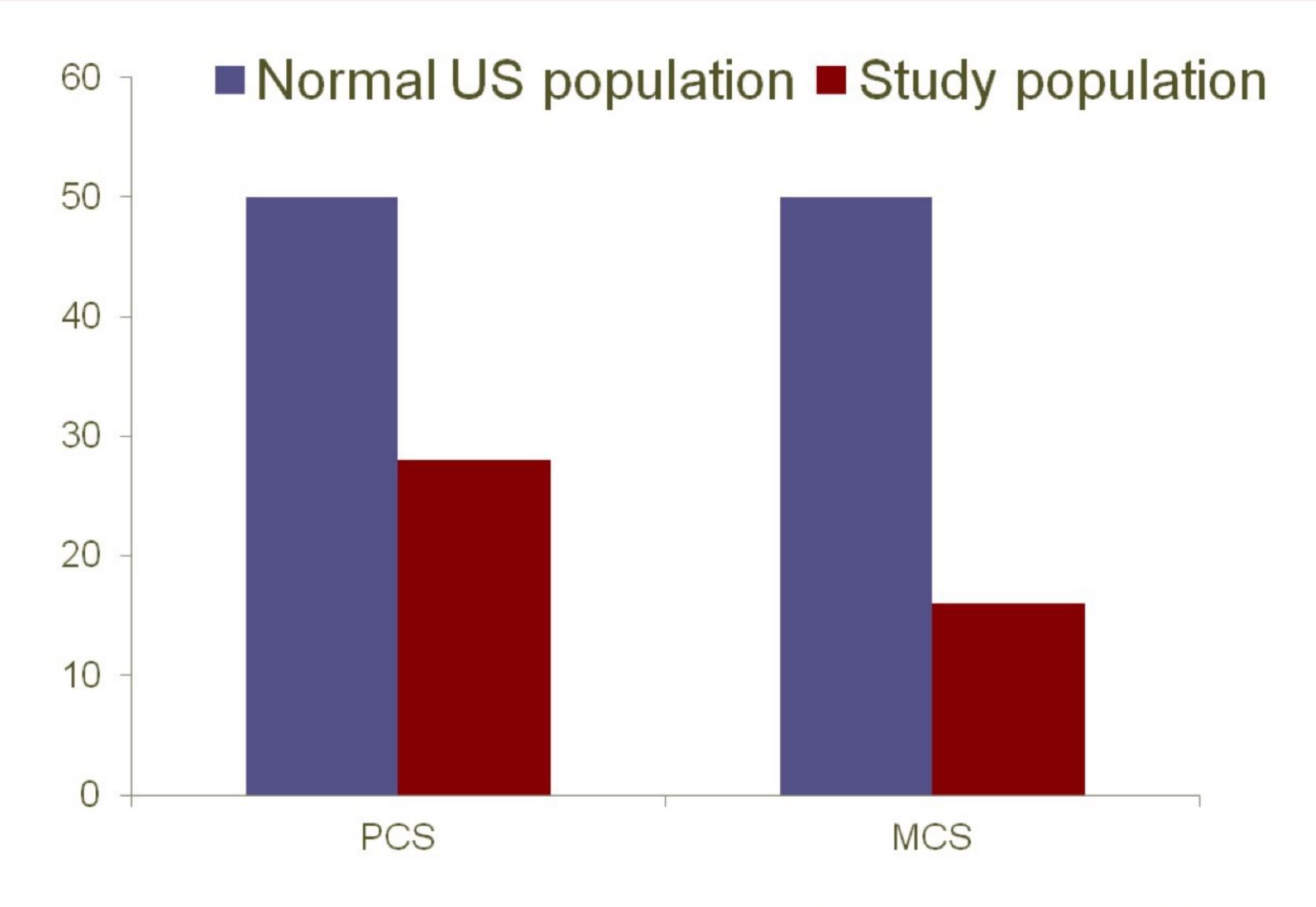


## SF-36 Scores





## Quality of Life



Long-term trauma survivors after prolonged ICU stay.

#### Measurement of correlates

#### PTSD

- PCLC—17 item self-administered questionnaire
  - Dichotomous cut-off (44)
- Depression/Anxiety
  - HADS—Hospital Anxiety and Depression Scale
  - 14 items (7 each)
  - Mild/moderate/severe
- Pain
  - Capturing what is already recorded

## What is modifiable?

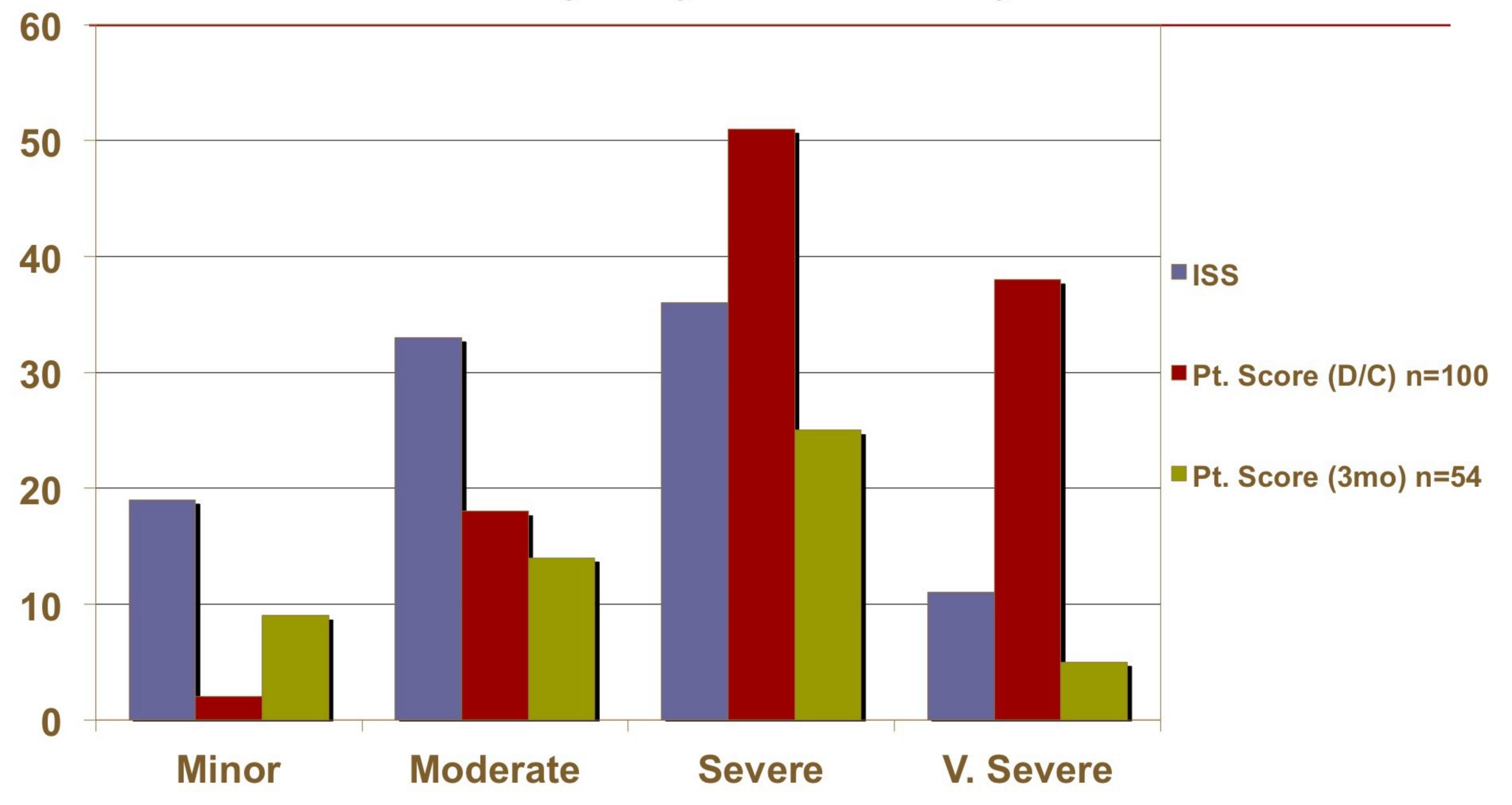
- QOL related to
  - ISS
  - Lower extremity injury
  - PTSD
  - Depression
  - Functional status
  - Social support
  - Gender
  - Age
  - LOS

## QOL and modifiable factors

	В	SE(B)	β	Adj R <sup>2</sup>	F
PCS				0.38	9.92*
PTSD severity	-0.34	0.13	-0.40*		
Perceived severity	-7.00	2.40	-0.44*		
MCS				0.44	12.77*
PTSD severity	-0.46	-0.13	-0.52*		
Perceived severity	-6.25	2.35	-0.38*		

<sup>\*</sup> p < .01

## Perceived injury severity



# Perceived injury severity

	Before discharge	3 months
Underestimated severity, n (%)	14 (14)	19 (35)
Equivalent severity, n (%)	25 (25)	13 (24)
Overestimated severity, n (%)	61 (61)	22 (41)
Spearman correlation, statistic (p value)	0.13 (0.2)	0.15 (0.3)
Kappa, statistic (p value)	-0.0081 (0.6)	0.069 (0.14)

## Non-significant

- Age
- Race
- SES
- ISS
- Complications
- Discharge destination
- Employment status

## Implications

- Biopsychosocial model of disease
  - "Disease can not be accounted for solely by deviations from norm of measurable biological variables"
- ISS an inaccurate reflection of how patient perceives injury
- Those most at risk for poor outcome least able to get help
- Hypothesis-driven research should focus on patient-assessed factors as they influence QoL.

#### Recommendations--Clinical

- Understand it's a multidimensional construct
- Believe in the importance of patient-derived data
- Concentrate on one modifiable area
  - PTSD
  - Pain
  - Depression
- Do as much as you can on a shoestring... build infrastructure for the future

## Summary

- QoL after injury improves over time, never returns to baseline
- Long-term follow-up essential
- As clinicians, modifiable factors important
- Psychological factors EXTREMELY important
  - Early recognition and screening
- Complex, interdisciplinary care and research
- Your perception ≠ your patient's perception