Braden Scale

Assessment Overview

Assessment Area

ICF Domain:
Body Function
Subcategory:
Functions of the Skin
Subscales (domains):
1) Sensory Perception, 2) Moisture, 3) Activity, 4) Mobility, 5) Nutrition, 6) Friction and Shear

You Will Need

Length:
5-10 minutes, 6 items
Scoring:
Each domain scored 1-4 (except for Friction and Shear, which is scored 1-3), total score (6-23) as sum of domains.
Higher scores reflect better prognosis.

Summary

The Braden Scale is a clinician-administered assessment tool for determining a patient's risk level for incurring skin breakdown and is useful for detecting pressure ulcer risk in people with SCI (though it includes two factors less related to risk for people with SCI - sensory perception and mobility). Moisture was found to be the most predictive variable for people with SCI. It has been tested in both acute care and long-term-care settings.

The scale items were developed based on expert consensus, and includes three factors (sensory perception, mobility and nutritional variables) that were not significantly related to pressure ulcer development for individuals with SCI.

Availability

Worksheet: Can be found here; and the scale, scoring information (free) and a videotape manual ($150 US) can be purchased here.

Languages: English, French, Portuguese / Brazilian Portuguese, Spanish. Also available in other languages, but are not formally validated.

Video: https://www.youtube.com/watch?v=zP6p0M5zrLk&t=10s

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Not established in SCI

Typical Values

Mean (95%CI) Scores:

All patients: 11.1 (10.7-11.5)

Patients with ulcers (n=80): 9.9 (9.6-10.3)

Patients without ulcers (n=64): 12.6 (12-13.2)

(Ash 2002; n=144; mean time since injury: 14 days)

Mean (SD) Scores:

13.8 (1.75) (range 10-18)

(Wellard & Lo 2002; n=60; non-acute SCI patients)

Threshold Values:

16 or less indicates risk of pressure ulcer

(Flett et al. 2019; n=754; 510 males, 244 females, mean (SD) age: 53.9 (18.5) years; 43% tetraplegia, 7% paraplegia; 15% complete injury, 77% incomplete injury; mean (SD) injury duration: 84.6 (378.4) days)

Measurement Properties

Validity – Moderate

Moderate correlation with the stage of the first pressure ulcer:

r = -0.353

Moderate correlation with the number of ulcers developed:

r = -0.431

(Salzberg et al. 1999; n=226; 188 males, 38 females; traumatic SCI; injury level: C4-S1; acute)

Moderate predictive validity for pressure ulcer development:

Area Under Curve (AUC) = 0.73-0.81

CI (95%) = 0.74-0.88

(Ash 2002; n=144; mean time since injury: 14 days)

Study findings suggest that a simple measure of mobility, admission FIM bed/chair transfer score of 1 (total assist), can identify at-risk individuals with greater accuracy than both an SCI specific instrument (SCIPUS) and a PI specific instrument (Braden)

(Flett et al. 2019; n=754; 510 males, 244 females, mean (SD) age: 53.9 (18.5) years; 43% tetraplegia, 7% paraplegia; 15% complete injury, 77% incomplete injury; mean (SD) injury duration: 84.6 (378.4) days)

It was found that sensory perception, mobility and nutritional variables were not significantly related to pressure ulcer development. Moisture was the most important predictive variable

(Salzberg et al. 1999; n=226; 188 males, 38 females; traumatic SCI; injury level: C4-S1; acute)

Number of studies reporting validity data: 4

Reliability – Not stablished

Not established in SCI

Responsiveness

Floor/Ceiling Effect:

A ceiling effect was reported in mixed populations (21% of patients attained a 'high risk' score)

(Wellard & Lo 2002; n=60; non-acute SCI patients)

Effect Size:

Not established in SCI

Number of studies reporting responsiveness data: 2