

Activities-Specific Balance Confidence (ABC) Scale

Assessment Overview

Assessment Area

ICF Domain:

Activity

Subcategory:

Mobility

You Will Need

Length:

Approximately 5-10 minutes.

Items:

16 items.

Scoring:

- The respondent rates his/her confidence in performing each activity without losing balance by selecting a value between 0% (no confidence) to 100% (completely confident).
- Overall score is calculated by adding item scores and then dividing by the total number of items.

Summary

The Activities-Specific Balance (ABC) Scale rates perceived confidence in performing 16 different standing and walking activities. It provides a subjective measure of balance confidence; so, scores are not based on clinician observation of performance and clinicians should also consider factors such as self-esteem and insight when using this scale.

It has 16 questions that require the patient to rate their confidence that they will not lose balance or become unsteady while performing the following activities:

1. Walking around the house
2. Walking up or down stairs
3. Bending over to pick up a slipper from the front of a closet floor
4. Reaching for a small can off a shelf at eye level
5. Standing on tiptoes and reaching for something above his/her head
6. Standing on a chair to reach for something
7. Sweeping the floor
8. Walking outside the house to a car parked in the driveway
9. Getting into or out of a car
10. Walking across a parking lot to the mall
11. Walking up or down a ramp
12. Walking in a crowded mall where people rapidly walk past
13. Being bumped into people as they walk through the mall
14. Stepping on to or off an escalator while holding onto a railing
15. Stepping onto or off an escalator while holding onto parcels (so that they are not able to hold the railing)
16. Walking outside on icy sidewalks

Compared with the Falls Efficacy Scale, the ABC scale includes more challenging mobility tasks, such as negotiating escalators, which may make it better suited for ambulatory individuals (Shah et al. 2017).

Availability

Worksheet: The [print version](#) of the scale may be freely reproduced for student training, research and clinical practices in which therapists and assistants use the scale to assess fewer than 1000 patients per year. Contact primary developer and copyright holder, Dr. Anita Myers at amyers@uwaterloo.ca

Languages: English, French Canadian, Chinese, Dutch, German, Hindi, Korean, Portuguese, Swedish, and Turkish.

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Standard Error of Measurement:
5.37%

(Shah et al. 2017; n=26; 20 males, 6 females; mean (SD) age: 59.7 (18.9) years; 5 AIS C and 21 AIS D; level of injury: C1-L4; chronic SCI)

Minimal Detectable Change:
14.87%

(Shah et al. 2017; n=26; 20 males, 6 females; mean (SD) age: 59.7 (18.9) years; 5 AIS C and 21 AIS D; level of injury: C1-L4; chronic SCI)

Typical Values

Not established in SCI

Measurement Properties

Validity – Low to High

High correlation with MiniBESTest:

$\rho = 0.76$

Moderate to High correlation with 10-MWT:

Fast 10-MWT: $r = 0.80$

Self-selected 10-MWT: $r = 0.706$

Moderate correlation with Lower extremity strength:

$\rho = 0.60$

Low correlation with sensory function (non-significant):

Proprioception: $\rho = 0.26$

Cutaneous pressure: $\rho = 0.08$

Moderate to High correlation with SCI-FAP scores:

$\rho = -0.67$ to -0.76

Moderate to High correlation with two biomechanical measures:

Total center of pressure velocity: $\rho = -0.69$

Center of pressure in the anterior-posterior direction:
 $\rho = -0.71$

*As ABC scale score increased, the velocity of the center of pressure decreased.

(Shah et al. 2017; n=26; 20 males, 6 females; mean (SD) age: 59.7 (18.9) years; 5 AIS C and 21 AIS D; level of injury: C1-L4; chronic SCI)

Reliability – High

High Test-retest Reliability:

ICC = 0.93, 95% CI = 0.85-0.97

(Shah et al. 2017; n=26; 20 males, 6 females; mean (SD) age: 59.7 (18.9) years; 5 AIS C and 21 AIS D; level of injury: C1-L4; chronic SCI)

Number of studies reporting reliability data: 1

High correlation with Composite Activity-related Risk of Falls Scale (CARFS):

$r=-0.601$ (SCI subgroup)

(Jiang et al. 2002; $n=136$, for the 18 with SCI → mean age: 48.5 years, 13 males, 5 females, 10 quadriplegia, 8 paraplegia)

Discriminative validity: On average, participants with incomplete SCI scored significantly lower on the ABC scale than their age- and sex-matched peers without SCI ($67.5 \pm 20.3\%$ (range 21.3–95.3%) versus $94.5 \pm 7.3\%$ (range 65.6–100%), $Z=-4.381$, $P<0.001$). The ROC analysis showed an AUC of 0.95 (95% CI = 0.89–1.00).

(Shah et al. 2017; $n=26$; 20 males, 6 females; mean (SD) age: 59.7 (18.9) years; 5 AIS C and 21 AIS D; level of injury: C1-L4; chronic SCI)

Number of studies reporting validity data: 2

Responsiveness

Floor/Ceiling Effect:

Not established in SCI

Effect Size:

Not established in SCI

**Number of studies reporting
responsiveness data: 0**