

Research Summary – Activities-Specific Balance Confidence (ABC) Scale – Balance

Author Year Country Research Design Setting	Demographics and Injury Characteristics of Sample	Validity	Reliability	Responsiveness Interpretability
Shah et al. 2017 Prospective, cross-sectional study to evaluate the test-retest reliability, convergent validity, and discriminative validity of the Activities-specific Balance Confidence (ABC) scale in individuals with incomplete SCI Laboratory; Saskatchewan, Canada	N = 26 participants with SCI 20M, 6F Mean (SD) age 59.7 (18.9) years AIS C (n = 5), AIS D (n = 21) Level of injury: C1-L4 N = 26 participants without SCI 20M, 6F Mean (SD) age 58.9 (18.1) years	Convergent validity: The correlation between ABC scale scores and: - MiniBESTest: - Total MiniBESTest score: $\rho=0.76$, $P<0.001$ - MiniBESTest subscores: $\rho=0.60-0.69$, $P\leq 0.001$ 10-MWT: - Fast 10-MWT: $r=0.80$, $P<0.001$ - Self-selected 10-MWT: $r=0.706$, $P<0.001$ - Lower extremity strength: $\rho=0.60$, $P=0.001$ - Sensory function: - Proprioception: $\rho=0.26$, $P=0.199$ - Cutaneous pressure: $\rho=0.08$, $P=0.704$	Test-retest reliability (n = 23): ICC = 0.93, 95% CI = 0.85–0.97.	The SEM of the ABC scale was calculated to be 5.37% (using $s_x=20.28\%$ and $r_x=0.93$). The MDC₉₅ was calculated to be 14.87%.

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		- All SCI-FAP task scores: $\rho=-0.67$ to -0.76, $P\leq 0.001$). - Two biomechanical measures showed a significant correlation with the ABC scale: Total center of pressure velocity ($\rho=-0.69$, $P<0.001$) and center of pressure in the anterior-posterior direction ($\rho=-0.71$, $P<0.001$). As ABC scale score increased, the velocity of the center of pressure decreased. 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%), $Z=-4.381$, $P<0.001$).		

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		The ROC analysis showed an AUC of 0.95 (95% CI = 0.89–1.00).		
Jiang et al. 2022 Psychometric study to test the reliability and validity of the Composite Activity-related Risk of Falls Scale (CARFS) China	N = 136 70 older adults (mean age: 68.0 years; 35M, 35F) 38 persons with stroke 18 persons with SCI (Mean age: 48.5 years; 13M, 5F; 10 quadriplegia and 8 paraplegia).	Convergent validity: - Overall CARF score was significantly correlated with the average ABC score in each participant group: - Elderly: $\rho = -0.824, p < 0.01$ - Stroke: $\rho = -0.761, p < 0.01$ - SCI: $\rho = -0.601, p < 0.01$ - The average ABC score showed weak to moderate correlation with the walking independence levels (Functional Assessment Measure) in each group [$\rho = 0.603, 0.331$, and 0.325 for elderly ($p < 0.01$), stroke ($p < 0.05$), and SCI groups,		

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		respectively ($p > 0.05$)]. • The average ABC showed moderate correlation with number of previous falls only in the group with stroke ($\rho = 0.430$, $p < 0.05$)		