

Reviewer ID: Christy Chan & Gita Manhas			
Type of Outcome Measure: Frenchay Activities Index (FAI)			Total articles: 2
Author ID Year	Study Design	Setting	Population (sample size, age) and Group
Hsieh et al. 2007	Prospective interview; convenience sample	Taiwan, community setting	N = 233 (193M, 40F) Mean (SD) age = 41.1 (12.6) Mean (SD) years post-injury = 9.4 (9.2) Complete tetraplegia = 33 Incomplete tetraplegia = 57 Complete paraplegia = 151 Incomplete paraplegia = 48
Chern et al. 2013	Secondary data analysis; purpose to examine the properties of FAI (including score distribution, internal consistency, construct validity, predictive validity, and responsiveness)	Teaching hospital in southern Taiwan	N = 342 (3 months post injury); 213 male Age (SD) = 43.7 (18.5) N = 1,010 (6 months post injury); 630 male Age (SD) = 45.3 (18.6) N = 987 (12 months post injury); 611 male Age (SD) = 45.7 (18.5) <u>Traumatic limb injuries</u> All musculoskeletal or neurovascular injuries involving upper or lower extremities.
1. RELIABILITY			
Author ID	Internal Consistency	Test-retest, Inter-rater, Intra-rater	
Hsieh et al. 2007	No data available	Rasch analysis reliability coefficient = 0.78	
Chern et al. 2013	High level of internal consistency ($\alpha > 0.90$)	No data available	
2. VALIDITY			
Author ID	Validity		
Hsieh et al. 2007	<p>Rasch analysis was used to determine whether items of the FAI measure a unidimensional construct.</p> <p>2 (reading books, and going outside) of the 15 items were found to be poorly fitting. After removal of these items, the 13 remaining items fit the model's expectations.</p> <p>The original 4 category response of the FAI was not appropriate because the items exhibited disordering of the step difficulties. After reorganizing the response categories with 4 items using a dichotomous scale and 9 using a trichotomous scale, there was no disordering and therefore appropriate.</p> <p>After making revisions, the 13-item FAI constituted a unidimensional construct</p>		

Chern et al. 2013	<u>Pearson's r</u> Relationships between the R-FAI administered at 3, 6, and 12 months after injury and the 4 domains of the WHOQOL- BREF administered at 12 months after injury:			
	WHOQOL-BREF 12 months post injury	FAI 3 months post injury	FAI 6 months post injury	FAI 12 months post injury
	Physical	0.39	0.41	0.50
	Psychology	0.38	0.28	0.37
	Social relations	0.20	0.28	0.35
	Environment	0.39	0.31	0.37

3. RESPONSIVENESS

Author ID	Responsiveness		
Chern et al. 2013		Effect size	Standardized Response Mean
	3 months post injury	0.10	0.20
	6 months post injury	0.35	0.52
	12 months post injury	0.15	0.23
NOTE: all paired-t values (p) were <0.001			

4. FLOOR/CEILING EFFECT

Author ID	Floor/ceiling effect		
Hsieh et al. 2007	Floor = 9.9% Ceiling = 0%		
Chern et al. 2013	# months post injury	% Ceiling	% Floor
	3	0.3	7.3
	6	3.5	4.3
	12	2.5	2.4

5. INTERPRETABILITY

Author ID	Interpretability
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Hsieh et al. 2007	<p>FAI score: mean (SD), range 15-item FAI raw score: 15.4 (10.2), range: 0-44 Revised 13-item FAI raw score: 8.0 (5.0), range: 0-22</p> <p>Standard Error (SE) of the items:</p> <table border="1" data-bbox="199 342 561 789"> <thead> <tr> <th>Item:</th> <th>SE Logit:</th> </tr> </thead> <tbody> <tr><td>1.</td><td>0.17</td></tr> <tr><td>2.</td><td>0.13</td></tr> <tr><td>3.</td><td>0.17</td></tr> <tr><td>4.</td><td>0.17</td></tr> <tr><td>5.</td><td>0.11</td></tr> <tr><td>6.</td><td>0.12</td></tr> <tr><td>7.</td><td>0.11</td></tr> <tr><td>8.</td><td>0.13</td></tr> <tr><td>9.</td><td>0.12</td></tr> <tr><td>10.</td><td>0.16</td></tr> <tr><td>11.</td><td>0.15</td></tr> <tr><td>12.</td><td>0.15</td></tr> <tr><td>13.</td><td>0.15</td></tr> </tbody> </table>	Item:	SE Logit:	1.	0.17	2.	0.13	3.	0.17	4.	0.17	5.	0.11	6.	0.12	7.	0.11	8.	0.13	9.	0.12	10.	0.16	11.	0.15	12.	0.15	13.	0.15																
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Chern et al. 2013	<p>R-FAI: revised Frenchay Activities Index (travel outings, gardening, household/car maintenance, reading books, and gainful work) were deleted because of low Hi values (<0.30)</p> <p>Mean values associated with each item in R-FAI:</p> <table border="1" data-bbox="199 911 1347 1260"> <thead> <tr> <th>Item:</th> <th>3 months post injury</th> <th>6 months post injury</th> <th>12 months post injury</th> </tr> </thead> <tbody> <tr><td>1.</td><td>1.9</td><td>2.1</td><td>2.2</td></tr> <tr><td>2.</td><td>2.0</td><td>2.2</td><td>2.4</td></tr> <tr><td>3.</td><td>2.0</td><td>2.3</td><td>2.5</td></tr> <tr><td>4.</td><td>2.2</td><td>2.5</td><td>2.6</td></tr> <tr><td>5.</td><td>2.1</td><td>2.4</td><td>2.6</td></tr> <tr><td>6.</td><td>2.5</td><td>2.8</td><td>2.8</td></tr> <tr><td>7.</td><td>2.6</td><td>2.8</td><td>2.9</td></tr> <tr><td>8.</td><td>2.6</td><td>2.8</td><td>2.9</td></tr> <tr><td>9.</td><td>2.5</td><td>2.8</td><td>3.0</td></tr> <tr><td>10.</td><td>2.7</td><td>3.0</td><td>3.2</td></tr> </tbody> </table>	Item:	3 months post injury	6 months post injury	12 months post injury	1.	1.9	2.1	2.2	2.	2.0	2.2	2.4	3.	2.0	2.3	2.5	4.	2.2	2.5	2.6	5.	2.1	2.4	2.6	6.	2.5	2.8	2.8	7.	2.6	2.8	2.9	8.	2.6	2.8	2.9	9.	2.5	2.8	3.0	10.	2.7	3.0	3.2
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