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Type of Outcome Measure: Wheelchair User's Shoulder Pain Index (WUSPI)			**Total articles:** 4

Author ID Year	Study Design	Setting	Population (sample size, age) and Group
Curtis et al. 1995b (Reliability and validity of…)	Test-retest (same day)	Not specified	Reliability: N=16 (15M, 1F) Mean age=38 years (range 21-59) Average time of wheelchair use is 15 years. 69% were SCI with remaining subjects reporting polio, lower extremity amputation, spina bifida, and other neurological disorders. Validity: N=64 (62M, 2F) Mean age=43 years (range 23-68) Average time of wheelchair use 14 years. 90% were SCI with remaining subjects reporting polio, amputation, cerebrovascular accidents, and multiple sclerosis.
Curtis et al. 1995a (Development of…)	Cross-sectional	Not specified	N=64 (62M, 2F) Mean age 42.9±11yrs (range 23-68yrs). 89% had SCI as primary disability (of which 23% were cervical, 67% were thoracic, and 10% were lumbar). Others reported poliomyelitis, amputation, CV accidents and MS. Average wheelchair use 14.3±8.5yrs (range 1.5-45yrs)
Samuelsson et al. 2004	Cross-sectional	Two spinal cord injury (SCI) centres in Sweden	N=56 (44M, 12F) Mean age 48.9 All paraplegia >1 year post-SCI Mean (SD) wheelchair experience: 13.9 (10.8) years
Salisbury et al. 2006	Longitudinal Study	Spinal Injuries Unit, Australia	N = 27 with tetraplegia (20M, 7F) Mean age = 42.5 +- 10.0 Between 2 and 4 years post-injury

1. RELIABILITY

Author ID	Internal Consistency	Test-retest, Inter-rater, Intra-rater
Curtis et al. 1995b	No data available	Test-retest reliability ICCs:

WUSPI Index item scores	ICC
Transfers	--
Bed-wheelchair	0.98
Car-wheelchair	0.99
Tub/shower-wheelchair	0.97
Load wheelchair in car	0.99
Wheelchair mobility	--
>10-min duration	0.87
Ramp/uneven	0.84
Self-care	--
Lift object from overhead	0.95
Put on pants	0.95
Put on T-shirt	0.92
Put on button-down shirt	0.99
Wash back	0.89
General activities	--
Work/school activities	0.98
Driving	0.99
Household chores	0.88

		Sleeping	0.99
		Total score	**0.99**

Curtis et al. 1995a	**Cronbach's Alpha for each of the 19-item pain and difficulty dimensions and for the complete 38-item questionnaire.** Pain α=0.98, complete α=0.97. **Pearson's correlation coefficient for inter-item correlations.** High correlations between several of the pain and difficulty items (r=0.633 to 0.891). All correlations were significant at P<.0001.	No data available

2. VALIDITY

Author ID	Validity
Curtis et al. 1995b	Correlation of total score with various range of motion measures: Abduction: r = -0.49 (P=0.0001) Flexion: r = -0.48 (P=0.0001) Extension: r = -0.30 (P=0.0147) External rotation: r = -0.24 (P=0.0616) Internal rotation: r =-0.20 (P=0.1064)
Samuelsson et al. 2004	Spearman's correlation between: WUSPI & Klein-Bell ADL Scale: 0.10 (Not significant; p>0.05)
Salisbury et al. 2006	Convergent Validity: WUSPI scores were positively correlated with Numerical Rating Scale 101 (NRS-101) pain intensity on a numeric rating scale (*r* = 0.723, *p* = 0.000)

3. RESPONSIVENESS – no data available

4. FLOOR/CEILING EFFECT – no data available

5. INTERPRETABILITY

Author ID	Interpretability
Curtis et al. 1995b	WUSPI index item scores and SEM and MDC values (calculated from data in Curtis et al. 1995b):

WUSPI Index item scores	Time 1 score	Time 2 score	SEM	MDC
Transfers	---	---	--	--
Bed-wheelchair	0.71 (1.48)	0.89 (1.73)	0.21	0.58
Car-wheelchair	0.82 (1.63)	0.88 (1.66)	0.16	0.45
Tub/shower-wheelchair	0.98 (1.97)	0.85 (1.66)	0.34	0.95
Load wheelchair in car	1.46 (2.04)	1.34 (1.76)	0.20	0.57
Wheelchair mobility	---	---	--	--
>10-min duration	0.90 (1.33)	0.79 (1.13)	0.48	1.33
Ramp/uneven	1.14 (1.32)	0.93 (1.16)	0.53	1.46
Self-care	---	---	--	--
Lift object from overhead	1.71 (2.65)	1.40 (2.13)	0.59	1.64
Put on pants	0.38 (0.72)	0.439 (0.81)	0.16	0.45
Put on T-shirt	0.88 (1.32)	0.84 (1.68)	0.37	1.03
Put on button-down shirt	0.67 (1.53)	0.59 (1.382)	0.15	0.42
Wash back	1.02 (1.12)	1.00 (1.37)	0.37	1.03
General activities	---	---	--	--

	Work/school activities	1.09 (1.28)	1.17 (1.49)	0.18	0.50
	Driving	0.57 (1.54)	0.58 (1.66)	0.15	0.43
	Household chores	0.63 (1.35)	0.42 (0.76)	0.47	1.30
	Sleeping	1.49 (2.35)	1.47 (2.39)	0.24	0.65
	Total score	14.17 (18.4)	13.51 (17.85)	1.84	5.10
Curtis et al. 1995a	**WUSPI Index item scores**	**Difficulty**	**Pain**		
	Transfers	---	---		
	Bed-wheelchair	1.15 (2.07)	1.56 (1.98)		
	Car-wheelchair	1.87 (2.31)	2.03 (2.15)		
	Tub/shower-wheelchair	1.88 (2.43)	2.11 (2.19)		
	Load wheelchair in car	1.80 (2.28)	2.06 (2.2)		
	Wheelchair mobility	---	---		
	>10-min duration	1.23 (1.82)	1.59 (2.06)		
	Ramp/uneven	1.93 (2.28)	2.30 (2.48)		
	Self-care	---	---		
	Lift object from overhead	2.48 (2.65)	2.32 (2.55)		
	Put on pants	1.37 (1.99)	1.19 (1.80)		
	Put on T-shirt	1.25 (1.77)	1.51 (1.96)		
	Put on button-down shirt	1.22 (1.91)	1.24 (1.72)		
	Wash back	2.76 (2.91)	2.09 (2.57)		
	General activities	---	---		
	Work/school activities	1.47 (1.90)	1.64 (1.96)		
	Driving	0.99 (1.57)	1.40 (1.82)		
	Household chores	1.58 (1.89)	1.60 (1.94)		
	Sleeping	2.02 (2.32)	2.31 (2.64)		
	Total score	33.94 (28.65)	36.12 (31.50)		