

Quality of Life in Adults with Spinal Cord Injury: Comparisons with Stroke populations.

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OBJECTIVE

To assess the quality of life (QoL) of adults with spinal cord injury (SCI) and those with stroke.

METHODS

Data was collected using the WHOQOL-bref and a questionnaire of sociodemographic variables. Eighty-seven adults with SCI (65 men, 22 women; mean age 51.8±12.0 years) and 69 adults with stroke (49 men, 20 women; mean age 53.7±12.1 years) were included in this study. Adults with complete injury (AIS A) were 29 (33.3%), and incomplete injuries (AIS B, C, D) were 58 (66.7%). Forty-seven of the adults with SCI were tetraplegia (54.0%), 40 adults with SCI were paraplegia (46.0%). The subjects with stroke in this study were ambulatory hemiplegics with normal cognition. The domains of QoL were compared between the groups of stroke and SCI and between the groups of tetraplegia and paraplegia.

RESULTS

Most Participants (73.7%) are unsatisfied with their QoL, and the physical, psychological and environmental domains showed a higher correlation with QoL. There was no significant difference in QoL total score and subdomains between the SCI and the stroke group. Within the SCI group, tetraplegia group experienced a lower satisfaction in physical and environmental domains compared to the paraplegic group ($P<0.05$). Educational level had the highest correlation with QoL ($P<0.01$), and duration of disease showed no significant correlation. When participants divided into four groups based on education level and disease (low-educated SCI; high-educated SCI; low-educated stroke; high-educated stroke), low-educated SCI group showed lower satisfaction of psychological domain compared to the other three groups.

CONCLUSIONS

Spinal cord injury and stroke were negatively associated with QoL and there was no significant difference in QoL according to the diseases. The development of a QoL instrument specifically targeted to SCI would be required for more effective analysis and evaluation of QoL deficit in adults with SCI. Further longitudinal studies to assess the impact of injury level, injury completeness as well as socioeconomic status on SCI QoL are also needed.

Table 1. Demographic data of the subjects

	SCI (n=87)	Stroke (n=69)	P
Sex ratio (M / F)	65 / 22	49 / 20	0.61
Married / Single	61 / 26	51 / 18	0.05
Age	51.83(11.96)	53.71(13.08)	0.35
Education (years)	11.63(3.17)	12.30(3.88)	0.24
Duration (months)	63.68(93.0)	4.06(6.57)	0.00**

NOTE: SCI, spinal cord injury

* $p < .05$, ** $p < .01$

Table 2. QOL, SCI vs. Stroke

	SCI (n=7)	Stroke (n=69)	P
QOL total score	68.77(15.84)	71.23(13.22)	0.18
Physical domain	16.85(4.82)	17.20(4.41)	0.20
Psychological domain	16.61(4.67)	17.70(3.73)	0.13
Social domain	8.27(2.23)	8.87(2.25)	0.12
Environmental domain	21.75(5.22)	22.16(4.75)	0.51

NOTE: QOL, quality of life; SCI, spinal cord injury

* $p < .05$, ** $p < .01$

Table 3. QOL, T-SCI vs. P-SCI vs. Stroke group

	T-SCI (n=47)	P-SCI (n=40)	Stroke (n=69)	P	Tukey
QOL total score	64.77(12.86)	73.48(17.78)	71.23(13.22)	0.01*	P-SCI, Stroke>T-SCI
Physical domain	15.55(3.91)	18.38(5.38)	17.20(4.41)	0.02*	P-SCI>T-SCI
Psychological domain	15.83(4.09)	17.53(5.16)	17.70(3.73)	0.05	
Social domain	8.21(2.22)	8.38(2.26)	8.87(2.25)	0.26	
Environmental domain	20.17(4.34)	23.60(5.61)	22.16(4.75)	0.01**	P-SCI>T-SCI

NOTE: QOL, quality of life; SCI, spinal cord injury; T-SCI, Tetraplegic SCI; P-SCI, Paraplegic SCI

* $p < .05$, ** $p < .01$, *** $p < .001$