

Associations between self-care self-efficacy and somatic secondary health conditions in individuals with spinal cord injury

D.J. Reijmer, MSc; C.M.C. van Leeuwen, PhD; E.W.M. Scholten, PhD; J.M. Stolwijk-Swüste, MD, PhD; E.H. Roels, MD; W.X.M. Faber, MD; T. van Diemen, PhD; M.W.M. Post, PhD.

Introduction

- Spinal cord injury (SCI) could lead to somatic secondary health conditions (SHCs).
- The role of self-care self-efficacy (SCSE) in the prevention of somatic SHCs is unclear.

Aims

- To describe the determinants of SCSE.
- To describe the course of SCSE and somatic SHCs.
- To investigate the inter-relationship of SCSE and somatic SHCs.

Methods

- Multicenter prospective cohort study.
- Adult SCI patients admitted for first inpatient rehabilitation in a specialized rehabilitation center in the Netherlands were included.
- Participants completed the Self-care Self-efficacy Scale and the Spinal Cord Injury Secondary Conditions Scale at discharge, 6 months, 1 year and 3-5 years post-discharge.
- Demographic-, lesion-, and psychosocial characteristics (resilience and illness cognitions) were investigated as determinants of SCSE.

Results

1] Psychosocial characteristics explained 13.6% of the variance in SCSE at discharge and 5.2% at 3-5 years post-discharge, next to demographic and lesion characteristics, of which resilience was the only significant independent determinant.

	SCSE at discharge (n = 234)			SCSE three to five years after discharge (n = 144)		
	β	t-value	p-value Explained variance (ΔR^2)	β	t-value	p-value Explained variance (ΔR^2)
Model 1: Demographic characteristics			11.7%			7.1%
Gender (female)	-.03	-.54	.588	.25	2.80	.006
Age	-.23	-3.42	.001	-.06	-.54	.593
Having a partner (yes)	-.18	-2.90	.004	-.15	-1.49	.139
Education (high)	-.07	-1.16	.247	-.03	-.37	.714
Model 2: Lesion characteristics			1.7%			0.9%
Cause of injury (traumatic)	.17	2.35	.019	.02	.14	.889
Completeness of injury (motor complete)	-.10	-1.51	.134	.05	.40	.689
Level of injury (tetraplegia)	-.01	-.13	.900	.00	.03	.974
Model 3: Psychosocial characteristics			13.6%			5.2%
Resilience	.37	5.74	< .001	.20	2.19	.030
Total illness cognitions	.05	.68	.497	.11	1.15	.253
Total variance (R^2)			27.0%			13.2%

2] Levels of SCSE and somatic SHCs did not change significantly between test occasions.

Variable (range of scores)	Discharge	Three months after	Six months after	One year after	Three to five years after
SCSE (0-50)	40.0; 36.8-44.0	-	41.0; 37.0-45.0	39.0; 34.0-45.0	40.0; 35.0-44.0
n	234	-	114	189	144
Somatic SHCs (0-36)	8.0; 6.0-12.0	8.0; 5.0-12.0	8.0; 5.0-12.0	9.0; 5.0-12.0	8.0; 5.0-11.0
n	235	211	203	189	144

3] Somatic SHCs and SCSE were significantly and negatively associated during the first year post-discharge.

	SCSE							
	Discharge		Six months after		One year after		Three to five years after	
	r_s	p-value	r_s	p-value	r_s	p-value	r_s	p-value
Somatic SHCs	-.34	< .001	-.25	.008	-.37	< .001	-.10	.248

Conclusions

- Resilience significantly contributed to the level of SCSE, both at discharge and 3-5 years after discharge.
- SCSE is negatively associated with somatic SHCs during the first year post-discharge.
- Screening of individuals with SCI on both SCSE and somatic SHCs is advised to detect individuals at risk early.