Reviewer ID: Tyra Chu, Carlos L. Cano Herrera

Last updated: January 25th, 2024

Research Summary – Donovan SCI Pain Classification – Pain

Author Year Research Design Setting (country)	Demographics and Injury Characteristics of Sample	Validity	Reliability	Responsiveness Interpretability
Putzke et al. 2003 Videotape ratings SCI clinic at the University of Alabama at Birmingham	N=28 (23M, 5F) Mean age 45.5±10.02yrs Recruited from the SCI clinic at the University of Alabama at Birmingham. Traumatic SCI, 21 paraplegic, 7 tetraplegic AIS A: 15 AIS B: 7 AIS C: 4 AIS D: 2 Mean Time since Injury 10.3±7.2yrs Reported chronic (>6mo) pain in 1 or more sites.		**Test-retest, inter-rater, intra-rater:** Patient assessments were videotaped and scored using the Donovan pain scheme on two occasions, separated by a 3 month interval. There were three raters. The overall test-retest reliability was 78%. The percent agreement for each type of pain was as follows: 67% for segmental nerve/cauda equina, 75% for visceral, 80% for mechanical and 84% for spinal cord. No pain data for psychic pain was reported.	

Author Year Research Design Setting (country)	Demographics and Injury Characteristics of Sample	Validity	Reliability	Responsiveness Interpretability
			The percent agreement between the 3 raters (i.e. inter-rater reliability) at the 3 month assessment was 50%. The rate of agreement within each rater (i.e. intra-rater reliability) ranged from 67 to 83%.	
Richards et al. 2002 Videotape ratings Designed to assess interrater reliability of the Donovan classification system as well as the clinician-based usefulness of	N=28 (23M, 5F) Mean age 45.5±10yrs Traumatic SCI 21 paraplegia, 7 tetraplegia 15 AIS A 7 AIS B 4 AIS C 2 AIS D Mean time since injury (SD) = 10.3 (7.2) years		**Test-retest, inter-rater, intra-rater:** Three raters classified 60 pain sites for each participant using the Donovan system. They were given more detailed information incrementally and had to classify the pain after each step. The correlation between each pair of	

Author Year Research Design Setting (country)	Demographics and Injury Characteristics of Sample	Validity	Reliability	Responsiveness Interpretability
each classification criteria used in the Donovan system. Academic Rehab Hospital			raters and at each stage of classification was determined with Kappa coefficients. Overall percentage of agreement (%AG) was calculated between all three raters and Bartholomew's proportion analysis was used to indicate if %AG increased with each stage of additional information. Agreement between pairs of raters at different steps ranged from 62-73% (Kappa range 0.44-0.61) and overall agreement ranged from 50-62% (Kappa=0.55). %AG did not increase significantly (P>0.05) with each additional piece of information.	

Reviewer ID: Tyra Chu, Carlos L. Cano Herrera

Last updated: January 25th, 2024