Reviewer ID: Emily Procter, Matthew Querée, Risa Fox						
Type of Outcome Measure: Multidimensional Pain Readiness to Change Questionnaire (MPRCQ) & MPRCQ2						
Author ID Year		Setting	Population (sample size, age) and	Group		
Nielson et 2003	validation of an assessment tool (MPRCQ)	Not specified	N=88, 43 of which were SCI patients (and 65% of these wer male).  Mean age 47.84±12.08yrs (range 22-79yrs)  Must have had some chronic pain (≥1 on a 10-point scale).  No details given for injury level or duration.			
Nielson et 2008	i al. Postal survey (MPRCQ2)	Research program on pain in persons with disabilities in the Department of Rehabilitation Medicine, University of Washington (UW), Seattle	127 SCI participants (29.6% female) mean age: 44.82±14.48  88.8% Caucasian, 1.6% African-Ame 2.4% Asian, 4.0% Native American, 2			
1. RELIA	1. RELIABILITY					
Author ID	Internal Consistency		Test-retest, Inter-rater, Intra-rater			
Nielson et al. 2003	Cronbach's alpha levels were sufficiently high on all scales (Exercise, 0.84; Task persistence, 0.82; Cognitive control, 0.91; Avoid asking for assistance, 0.73; Assertive communication, 0.82); however, they were only marginal for Pacing (0.64) and Relaxation (0.68).		No data available			
Nielson et al. 2008	Cronbach's alpha for MPRCQ2 subscales  Exercise: 0.83 Task persistence: 0.75 Relaxation: 0.81 Pacing: 0.88 Avoid rest: 0.77 Avoid asking for assistance: 0.83 Assertive communication: 0.83 Body mechanics: 0.76 Cognitive control: 0.91 Divert attention: 0.77 Self-statement: 0.80 Reinterpret sensations: 0.84 Avoid catastrophizing: 0.83 Ignore pain: 0.91		No data available			
2. VALIDI			<u>I</u>			
Author ID						

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Nielson et al. 2003

### Factor analysis with varimax rotation.

Two factors were derived – active coping (relaxation, cognitive control, pacing and assertive communication), which accounted for 32.1% of the variance, and perseverance (task persistence, avoid asking for assistance and exercise), which accounted for 23.5% of the variance.

MPRCQ responses were compared to those of the Pain Stages of Change Questionnaire (PSOCQ) and Survey of Pain Attitudes (SOPA).

### PSOCQ:

MPRCQ total scores correlated significantly with the PSOCQ subscales of contemplation (r=0.29, P<.006), action (r=0.60, P<.0001), and maintenance (r=0.66, P<.0001).

MPRCQ perseverance scores correlated significantly with the contemplation (r=0.39, P<.0001), action (r=0.59, P<.0001) and maintenance (r=0.61, P<.0001) scales.

MPRCQ active coping scores correlated significantly with the precontemplation (r=-0.28, P<.01), action (r=0.26, P<.02) and maintenance (r=0.33, P<.002) scales.

MPRCQ total scores correlated significantly with the SOPA subscales of control (r=0.51, P=.0001) and harm (r=-0.24, P=.03).

MPRCQ active coping scores correlated significantly with the control scale (r=0.46, P<.0001), and the perseverance scores correlated significantly with all subscales (control, r=0.26, P<.02; harm, r=-0.42, P<.0001; disability, r=-0.43, P<.0001).

Nielson et al. 2008

The validity of the MPRCQ2 was evaluated by correlating the MPRCQ2 scales with the questionnaires measuring the use of related coping behaviors (Chronic Pain Coping Inventory (CPCI), Catastrophizing and Ignoring Sensations scales of the Coping Strategies Questionnaire (CSQ) and Pain Stages of Change Questionnaire (PSOCQ))

Moderate correlations were generally found between the MPRCQ2 scales and the corresponding CPCI scales. Readiness to Avoid Guarding was not significantly correlated with the CPCI Guarding scale.

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Significant correlations (p<0.001):
       MPRCQ2 Exercise and:
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CPCI Relaxation = 0.29

CPCI Pacing = 0.28 MPRCQ2 Task Persistence and:

CPCI Persistence = 0.38

CPCI Ask Assistance = -0.35

CPCI Resting = -0.29

CPCI Support = -0.28

CSQ Catastrophizing = -0.34

CSQ Ignore Sensations = 0.45

MPRCQ2 Relaxation and:

CPCI Relaxation = 0.54

CPCI Self-Statements = 0.40

CPCI Pacing = 0.42

CPCI Resting = 0.28

CPCI Support = 0.28

MPRCQ2 Cognitive Control and:

CPCI Self-Statements = 0.31

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CPCI Pacing = 0.36 CSQ Catastrophizing = -0.26 CSQ Ignore Sensations = 0.43 MPRCQ2 Avoid Ask Assistance and: CPCI Persistence = 0.28 CPCI Ask Assistance = -0.41 MPRCQ2 Pacing & CPCI Pacing = 0.59 MPRCQ2 Avoid Rest & CPCI Rest = -0.40 MPRCQ2 Assertive and: CPCI Ask Assistance = 0.23 CPCI Support = 0.28 MPRCQ2 Body Mechanics & CPCI Pacing = -0.26

Significant correlations were obtained between 6 of the 9 MPRCQ2 scales and the same 3 PSOCQ scales. No

significant correlations were found between MPRCQ2 scales and the PSOCQ Contemplation scale.

Interscale variability significant correlations:

SCI: F (8,119) = 37.37, P < .0001

Comentado [RL1]: https://www.ncbi.nlm.nih.gov/pmc/articles/P check this study and put in SCI specific numbers from Tables 5/6

Comentado [JZ2]: Although not explicitly stated, it may be implied in Table 5 that this analysis is not done on a SCI sample Comentado [RF3]: Did we want to put in mean/SD values from

## 3. RESPONSIVENESS -no data available

MPRCQ2 Total

# 4. FLOOR/CEILING EFFECT - no data available

5. INTERPRETABILITY

3. INTERFRETABLETT						
Author ID	Interpretability					
Nielson et	Mean (SD) scores for the MPRCQ2:					
al. 2008	MPRCQ2 scale:	Mean (SD) score:				
	Exercise	4.53 (1.62)				
	Task persistence	5.38 (1.59)				
	Relaxation	3.12 (1.58)				
	Cognitive control	5.03 (1.41)				
	- Divert Attention	5.16 (1.86)				
	<ul> <li>Self-statement</li> </ul>	5.01 (1.84)				
	- Reinterpret	4.54 (2.06)				
	sensations					
	- Avoid	4.92 (1.76)				
	catastrophizing					
	<ul> <li>Ignore sensations</li> </ul>	5.52 (1.82)				
	Pacing	5.10 (1.89)				
	Avoid Contingent Rest	3.23 (2.07)				
	Avoid Asking for	3.61 (2.20)				
	Assistance					
	Assertive	4.53 (2.10)				
	Communication					
	Proper Body	4.49 (1.81)				
	Mechanics					

38.82 (7.87)