Do Telephone-Delivered Self-Management Interventions for Chronic Pain in Persons with Disabilities Promote Pain-Related Acceptance that Contributes to Treatment Gains?

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INTRODUCTION

- Chronic pain is prevalent among persons with disabilities.
- Self-management interventions for chronic pain have the potential to improve important pain-related outcomes in persons with disability-related pain.[1]
- Extant research suggests that acceptance-based interventions are efficacious in persons with non-disability-related pain.[2]
- The extent to which chronic pain self-management interventions in persons with disabilities promote pain-related acceptance, which may in turn contribute to other treatment gains, is unknown.

PURPOSE OF CURRENT STUDY

- Investigate the association between pre-post-treatment changes in pain-related acceptance and depressive symptoms in persons with disability-related chronic pain enrolled in a chronic pain self-management intervention.
- Hypothesis:
  - Pre-post-treatment **increases in pain-related acceptance will be associated with lower depressive symptoms** at post-treatment, after controlling for baseline depressive symptoms and pre-post change in pain intensity.

METHOD

- Participants were recruited from:
  - > 22 US States and Canada
  - Three disability groups
    - Multiple sclerosis
    - Spinal cord injury
    - Acquired amputation
- Key Inclusion Criteria
  - Physician-verified diagnosis of disability
  - Pain >3/10 on at least 50% of days during the previous 6 months
- Data were collected immediately pre- and post-treatment

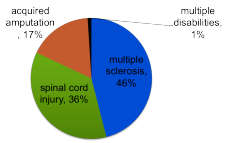
INTERVENTIONS

- Participants completed one of two telephone-delivered self-management interventions for chronic pain.
- Participants in both interventions received 8 individual 45-60 minutes sessions with a therapist over the course of 8-12 weeks, followed by 6 individual 10-20 minute follow-up calls over 6 months.
- Sessions covered a variety of topics including: psychoeducation about pain and its effects on different areas of life, goal setting/increasing activity, and strategies for examining and managing pain-related thoughts/beliefs.

RESULTS

Participants

***N* = 135**



	Pretreatment	Posttreatment
Age	*M* = 54.11, *SD* = 10.42 *range*: 23 - 85	--
Sex	61% female	--
Education	48% received a college or graduate degree	--
Depressive Symptoms[a]	*M* = 8.10, *SD* = 5.72 *range*: 0 - 24	*M* = 5.67, *SD* = 4.69 *range*: 0 - 18
Pain Intensity[b]	*M* = 5.17, *SD* = 1.64 *range*: 1.67 - 9.67	*M* = 4.28, *SD* = 1.96 *range*: 0.00 – 9.67
Pain-related acceptance[c]	*M* = 60.36, *SD* = 16.66 *range*: 12 - 100	*M* = 64.31, *SD* = 13.99 *range*: 26 - 105

[a]Patient Health Questionnaire-8 depression scale (Kroenke, Spitzer, & Williams, 2001)
[b]Participants rated average pain intensity in the past 24 hours on three separate days within one week; mean of three ratings was used to estimate pain intensity.
[c]Chronic Pain Acceptance Questionnaire (McCracken, Vowles, & Eccleston, 2004)

RESULTS

- Using hierarchical linear regression, post-treatment depression scores were regressed on pre-post change in pain-related acceptance, controlling for pre-treatment depression scores and pre-post change in pain intensity.

	B	SE *B*	ΔR^2
Constant	5.67	.25	
Pretreatment PHQ-8	.64	.05	.58***
Δ Pain Intensity (post - pre)	.41	.17	.03**
Δ Acceptance (post - pre)	-.06	.02	.02**

Model: $F(3,131) = 71.41$***; adjusted $R^2 = .61$
*p <.05. **p <.01. ***p <.001

CONCLUSIONS

- As hypothesized, pre-post-treatment increases in pain-related acceptance were associated significantly with lower depression scores at post-treatment, adjusting for baseline depression and pre-post change in pain intensity.
- Further investigation of the extent to which pain-related acceptance mediates effects of various chronic pain self-management interventions is warranted.

REFERENCES

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