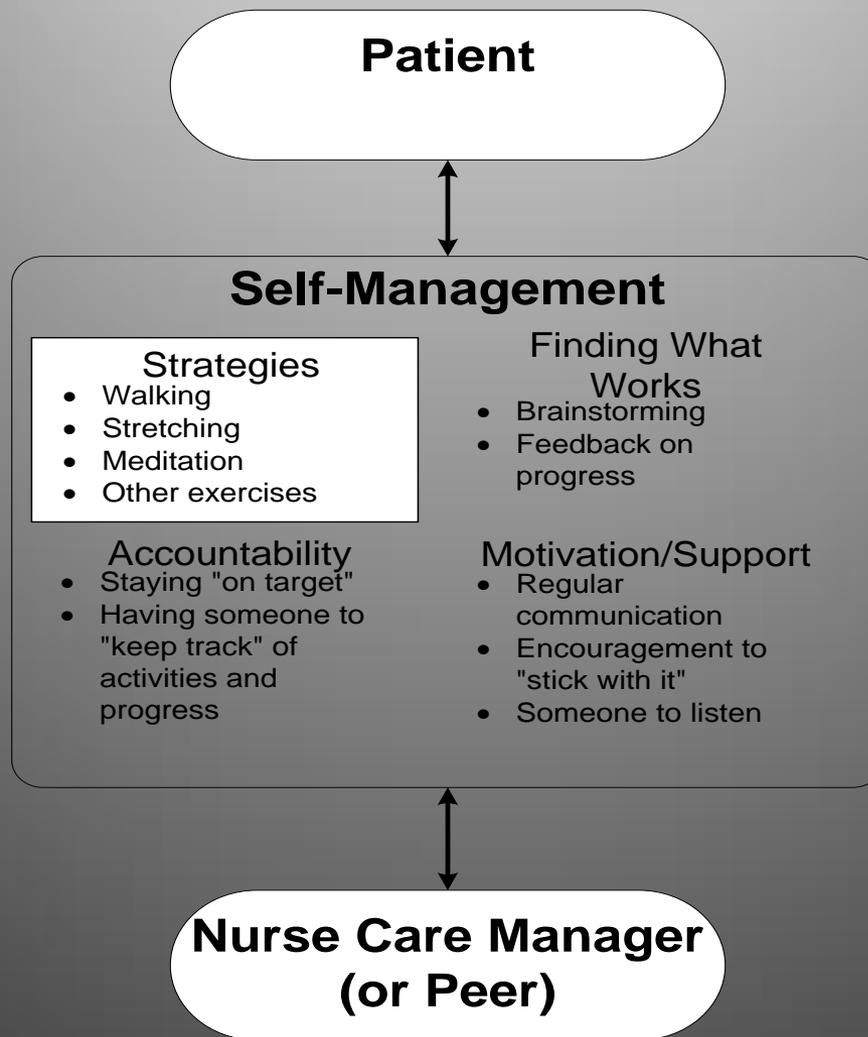


# Improving Pain using Peer- Reinforced Self-Management Strategies (IMPPRESS)

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# Background

- Chronic pain affects at least 100 million Americans and 40-70% of veterans.
- Pain self-management is an effective approach to chronic pain treatment.
- Peer support interventions have been shown to be effective in a variety of conditions, but under-studied in chronic pain.



Matthias et al. (2012) An expanded view of self management: Patients experiences with self management education and support in an intervention for chronic musculoskeletal pain. *Pain Medicine*, 13, 1018-1028.

# Study Objective

- To pilot test a peer support intervention, involving peer delivery of pain self-management strategies, for veterans with chronic pain.

# Methods

- Participants
  - 10 Veteran peer coaches, who had participated in a prior intervention for chronic pain self-management
  - 20 Veterans with chronic musculoskeletal pain (persisting  $\geq 6$  months) who had at least moderate pain severity (pain  $\geq 5$  on 0-10 scale)

# Design and Intervention

- Pre-test/Post-test design
- 4 month intervention period
- Peer coaches attended a 3-hour training session and participated in regular conference calls with the study's clinical psychologist
- Each peer coach was assigned 2 veterans
- Pairs were asked to talk at least 2x/month (8 contacts)
- Contacts could be by telephone or in person
- All participants were given a study manual covering pain self-management strategies

# Intervention

- Peer coaches were asked to do the following:
  - Help their Veterans to set goals
  - Follow up on goals at next meeting
  - Discuss relevant parts of the pain self-management manual
  - Provide encouragement, share personal experiences, engage in social talk where appropriate

# Peer Supervision

- The study psychologist conducted regularly supervision calls with peer coaches:
  - Reviewed motivational strategies
  - Discussed specific problems or questions
  - Peers shared experiences and ideas with each other
- The psychologist also made individual calls to peers periodically during the study.

# Measures

- Primary outcome: pain intensity and interference
  - PROMIS pain and interference measures
  - 3-question version of the Brief Pain Inventory (PEG)
- Secondary outcomes: depression, anxiety, patient activation, self-efficacy, social support, negative pain cognitions (pain catastrophizing and pain centrality)

# Data Analysis

- Linear mixed model with random effect for peer coaches, applied to change scores (pre/post measures)
- Accounts for intra-class correlation (ICC—patients nested within peer coaches)

# Results

- 9/10 peer coaches and 17/20 patients completed study (90% and 85% retention rates)
- All participants were male
- Peer Coach Ages: 50-71 (M=60, SD=7)
- Pain conditions: Low back pain (8), neck (6), knees (1), shoulders (1), “everywhere” (1)

# Demographics

Demographic variable		Peers N(%)	Patients N(%)
Gender	Male	9(100%)	17(100%)
Race	White	7(78%)	9(53%)
	Black	1(11%)	8(47%)
	Hispanic	1(11%)	0(0%)
Marital status	Married	8(89%)	8(47%)
	Divorced	1(11%)	6(35%)
	Never married	0(0%)	2(12%)
	Member of unmarried couple	0(0%)	1(6%)
Education	High School or less	0(0%)	5(29%)
	Some College	4(44%)	8(47%)
	4-year college degree	4(44%)	4(24%)
	post-graduate degree	1(11%)	0(0%)
Employment	full-time	2(22%)	2(12%)
	self-employed	0(0%)	2(12%)
	part-time	1(11%)	0(0%)
	retired	5(56%)	2(12%)
	unable to work	1(11%)	11(65%)
Income	Comfortable	4(44%)	4(24%)
	Just enough	5(56%)	6(35%)
	Not enough	0(0%)	6(35%)
	Refuse to answer	0(0%)	1(6%)
Military service	Peacetime	0(0%)	4(24%)
	Vietnam Era	5(56%)	12(71%)
	Gulf War	2(22%)	1(6%)
	Other	2(22%)	0(0%)
Age	Mean(SD)	59.9(6.7)	58.0(8.1)

# Outcomes for Patients

Measure	N	Baseline		4-Month		r	Effect Size	p-value	ICC
		Mean	SD	Mean	SD				
PROMIS	17	64.04	5.32	61.64	8.20	.54	-.35	.17†	-
PEG	17	22.53	4.03	21.29	5.59	.58	-.25	.33	.28
Depression	17	11.01	8.03	9.82	5.75	.58	-.17	.47†	-
Anxiety	17	7.61	5.98	5.71	4.43	.65	-.36	.11†	-
Self-Efficacy	17	4.35	2.20	5.58	1.86	0	.60	.16	.56
Patient Activation	17	41.22	5.69	44.00	5.58	.44	.49	.12	.40
Social Support	16	59.29	18.87	66.25	18.45	.62	.37	.11†	-
Centrality of Pain	17	34.00	8.03	28.71	8.98	.47	-.62	.06	.32
Pain Catastrophizing	17	29.24	11.13	24.12	13.28	.45	-.42	.12†	-

# Results

- Patients improved on all outcomes, including pain
- Of particular note:
  - Improved self-efficacy (effect size=.60)
  - Improved patient activation (effect size=.49)
  - Decreased pain centrality (effect size=-.62)

# Feasibility

- Pilot study suggests that peers can effectively deliver pain self-management instruction to other Veterans with chronic pain.
- Retention was relatively high over 4-month intervention period.

# Qualitative Data

- Facilitators to Peer Support Intervention:
  - Shared Veteran identity was an important facilitator for both peers and patients
  - Being partnered with someone else who has chronic pain
  - Having regular supervision calls as a group for peers
- Barriers
  - Logistical challenges with meeting
  - Challenges to engagement

# Shared Veteran Status: Peer Coach

“The fact that we had a shared experience in the military is oftentimes enough to at least put you on somewhat common ground. I was an officer, he was an enlisted, there were a lot of differences, but you still feel that bond...Already you're on somewhat of a level playing field, even if you come from completely different socioeconomic backgrounds, even if you're at different levels within the military.”

# Regular Peer Supervision Calls

- “I really liked the conference calls. I thought it was nice because you could share your ideas. It gave me a sense of how well I was doing relative to the other peers.”
- “I think hearing the other peers talk, 'cause you can pick up things that maybe you just hadn't thought of. Like they had different ideas and different ways of dealing with people...there were some ideas thrown out there that I thought hey, I ought to try that .”

# Logistical Challenges with Meeting

- “I told [my peer], I got to ride the bus to get there. I said that's four bucks. I said I have to look at that money because I'm on a fixed income. I said I know it's a lot of gas for you and gas at that time was almost \$4 a gallon, that's why we decided to do the phone calls.”  
(Veteran)
- Most used the phone to overcome this barrier

# Challenges to Engagement

- For patients: “There was times when we had [a meeting] scheduled and I wasn't able to make it...Some days I just didn't feel like it-- especially [with] taking care of my girlfriend. Because she has been sick for months and months, you know. So that took up a lot of time.”

# Challenges to Engagement

- For peers: “The best part was obviously contacting the vets. The bad part was not doing the other follow-up that you guys wanted...I say I'm gonna do it and then I don't do it and I put it off and I, you know, procrastinate about it, or forget about it.”
- “Sometimes I didn't call because I was spaced out. My disabilities were taking over I would just sit in the corner in my chair...and watch TV.”

# Intervention Benefits (Qualitative Results)

- Making interpersonal connections
  - “I guess the really most important part [of the intervention] was the opportunity to you know, kind of engage someone else. I mean, I am not much to look at, but I enjoy meeting other people, you know? And that was cool.” (Peer Coach)

# Benefits

- Providing/receiving encouragement and support
  - Listening
  - Coping (greater acceptance, a more positive attitude, and the ability not to let pain be in control)
    - “One of the things I really learned is that you don't have to let pain decide for you how your day is gonna be and how your life is gonna be.” (Veteran)

# Benefits

- Facilitating Pain Self-Management
  - Helping Veterans to navigate VA resources (e.g., patient advocate, applying for disability, MOVE program)
  - Discussing Exercises/Activity
  - “Getting ideas” (about different pain self-management strategies)
  - Encouraging/Challenging/Motivating (including goal setting)

# Next Steps

- Randomized controlled trial: Evaluation of a Coach-Led Intervention to improve Pain Symptoms (ECLIPSE—IIR 14-070)
- Peer coach arm vs. usual care (plus brief pain self-management class)
- July 2015-June 2019
- 40 peer coaches, 120 intervention Veterans, 95 control veterans

# References

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