

Peer Support Interventions for Chronic Musculoskeletal Pain: A Meta-Analytic Systematic Review.

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Introduction

Healthcare systems world-wide grapple with the escalating burden of chronic musculoskeletal (MSK) pain. Exploring complementary methods to promote uptake & engagement in self-management may broaden access & alleviate healthcare system strain. People with lived experience of pain (i.e., **peers**) may be well-placed to offer support & guidance for others with chronic MSK pain to promote successful self-management. Peer support refers to “the giving of assistance & encouragement by an individual considered equal” as part of a created social network or intervention [1].

Are peer support interventions more effective than usual care, waitlist control and/or other active interventions, in reducing pain and improving health outcomes in community-dwelling adults with chronic MSK pain?

Methods

Systematic search: MEDLINE, Embase, Emtree, PsycINFO, CINAHL, Cochrane Library, Scopus & grey literature (inception–Jan 2023)

- P** Community-dwelling adults (≥18 years of age) with chronic MSK pain
- I** Peer support interventions: peers mentors have the same condition, and have received training as part of the intervention; all formats
- C** No limit on control type (e.g., usual care, waitlist control, other interventions, sham interventions)
- O** Quantitative outcomes: pain intensity; function; quality of life; self-efficacy; self-management; social support; health service utilisation (all timepoints)
- S** Randomised controlled trials, randomised cross-over trials, quasi-randomised controlled trials, feasibility randomised controlled trials

All stages conducted by 2 independent reviewers. Risk of bias & GRADE assessments were performed. Meta-analyses used a generic inverse-variance random effects model, calculating mean difference (MD; 95% CIs) or standardised mean difference (SMD; 95% CIs).

REF: [1] Dennis CL. Int J Nurs Stud 2003.

Conclusion

- Peer support interventions lead to **small improvements in pain, function & self-efficacy** in **medium- & long-term** relative to usual care.
- Effects were smaller for comparisons to waitlist controls & comparable to active intervention controls.
- Evidence certainty is low-very low and clinical importance unclear.
- **Future work** should: explore diverse peer support formats; refine behaviour change targeting; & confirm noninferiority compared with health professional-led interventions before implementation.

Results

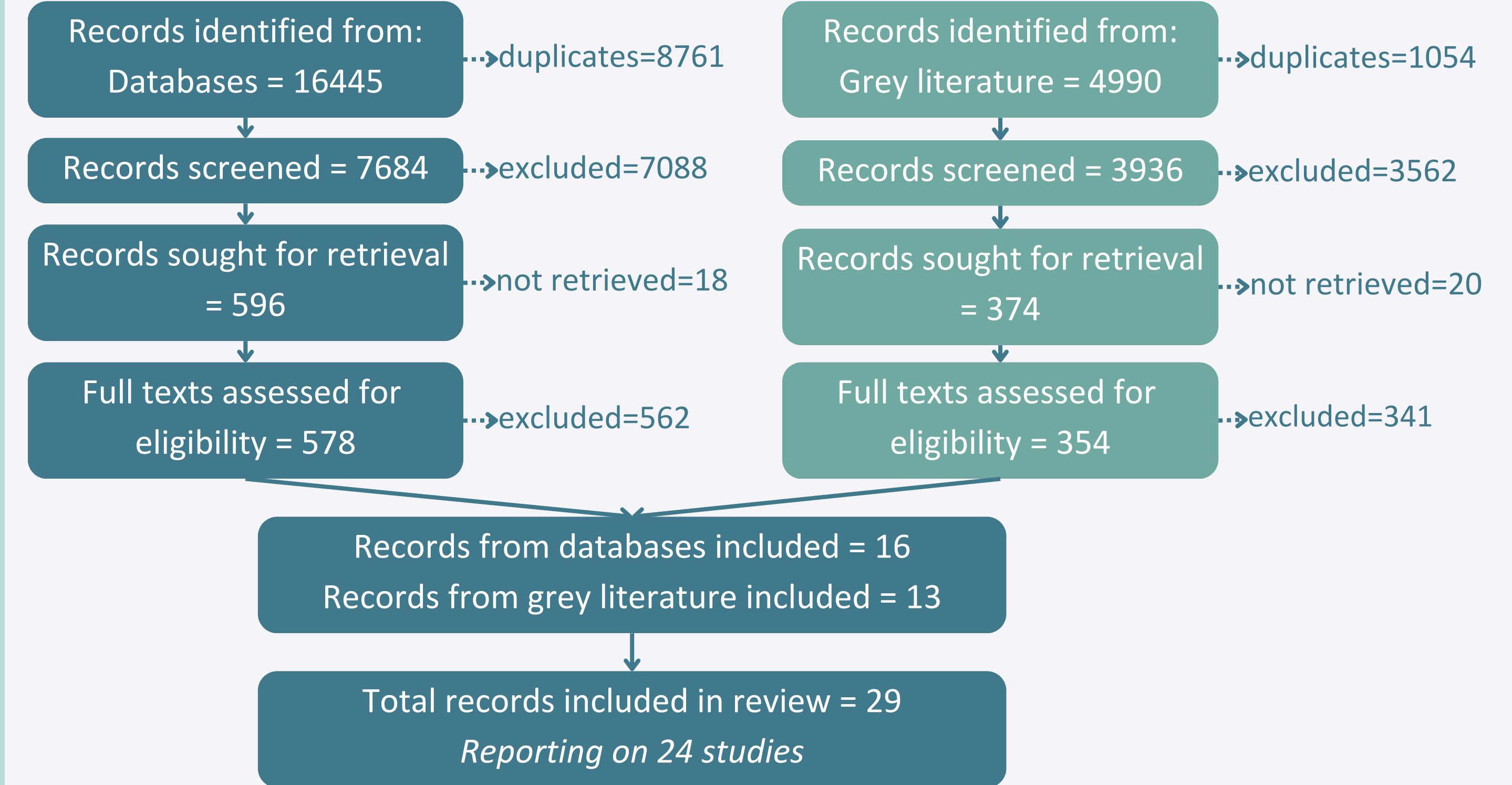


Figure 1. PRISMA flowchart of records through the review.

6202 participants

- Mean 69% women (range 18-91%)
- Mean ages ranging 42-78 yrs
- Studies conducted across 8 countries
- 79% interventions were in-person group sessions
- Intervention duration ranged from 2 wks to 12 months

Table 1. Summary of meta-analysis results. 22 studies (25/29 records) could be pooled

Control	Timepoint	Effect size [95%CI], P-value	Interpretation
Pain intensity meta-analyses			
Usual Care	Short-Term	MD: -1.58 [-4.83, 1.66], P=0.34	
	Medium-Term	MD: -3.48 [-6.61, -0.35], P=0.03	Favours peer support
	Long-Term	MD: -1.97 [-3.53, -0.42], P=0.01	Favours peer support
Waitlist	Short-Term	MD: 2.00 [-5.12, 9.12], P=0.58	
	Medium-Term	MD: -2.90 [-6.62, 0.81], P=0.13	
Active Control	Short-Term	MD: 4.98 [-0.08, 10.04], P=0.05	
	Medium-Term	MD: 1.90 [-1.79, 5.59], P=0.31	
	Long-Term	MD: 2.94 [-0.01, 5.90], P=0.05	
Self-efficacy meta-analyses			
Usual Care	Short-Term	SMD: 0.01 [-0.77, 0.79], P=0.98	
	Medium-Term	SMD: 0.26 [0.16, 0.36], P<0.001	Favours peer support
	Long-Term	SMD: 0.21 [0.07, 0.36], P=0.005	Favours peer support
Waitlist	Medium-Term	SMD: 0.36 [0.20, 0.51], P<0.001	Favours peer support
Active Control	Medium-Term	MD: -0.09 [-0.57, 0.40], P=0.73	
	Long-Term	MD: -0.41 [-0.77, -0.05], P=0.03	Favours control
Function meta-analyses			
Usual Care	Short-Term	SMD: -0.04 [-0.31, 0.23], P=0.77	
	Medium-Term	SMD: -0.12 [-0.25, 0.01], P=0.07	
	Long-Term	SMD: -0.10 [-0.19, -0.00], P=0.04	Favours peer support
Waitlist	Medium-Term	SMD: -0.10 [-0.23, 0.04], P=0.16	
Active Control	Short-Term	SMD: 0.07 [-0.17, 0.30], P=0.57	
	Medium-Term	SMD: -0.10 [-0.30, 0.10], P=0.32	
	Long-Term	SMD: 0.03 [-0.22, 0.29], P=0.80	
Health service utilisation meta-analyses			
Usual Care	Medium-Term	MD: -0.03 [-0.20, 0.15], P=0.78	
	Long-Term	MD: -0.03 [-0.22, 0.15], P=0.73	
Waitlist	Medium-Term	MD: 0.09 [-0.35, 0.53], P=0.69	

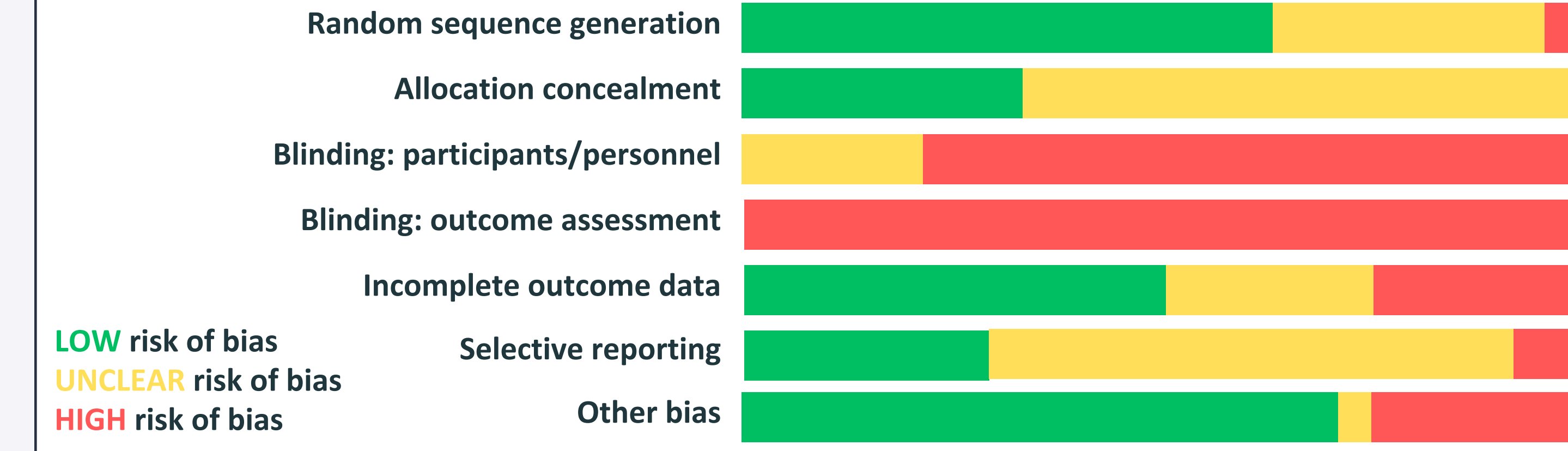


Figure 2. Risk of bias at overall study level.

GRADE evaluation: all outcomes had low to very low certainty evidence.

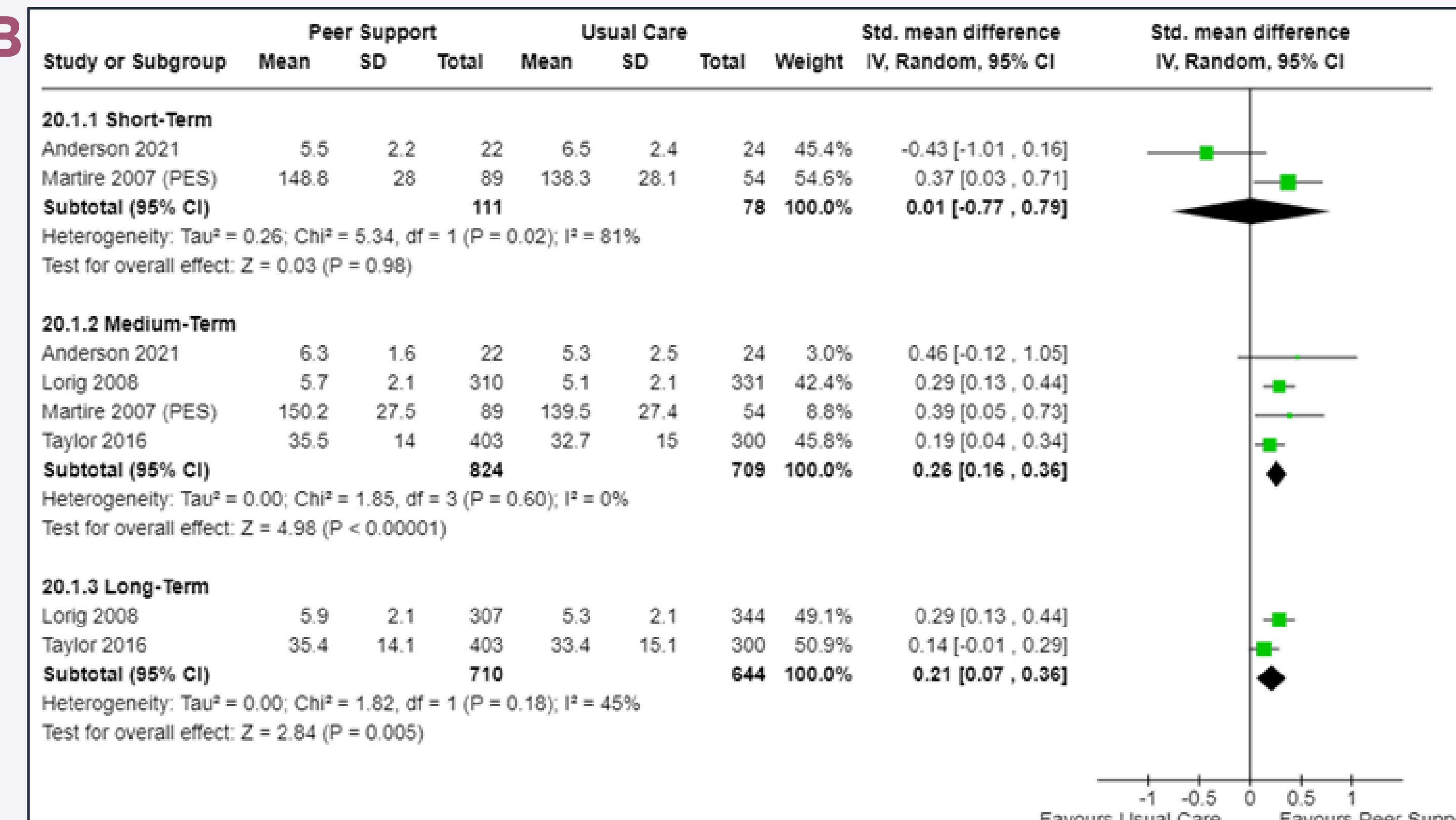
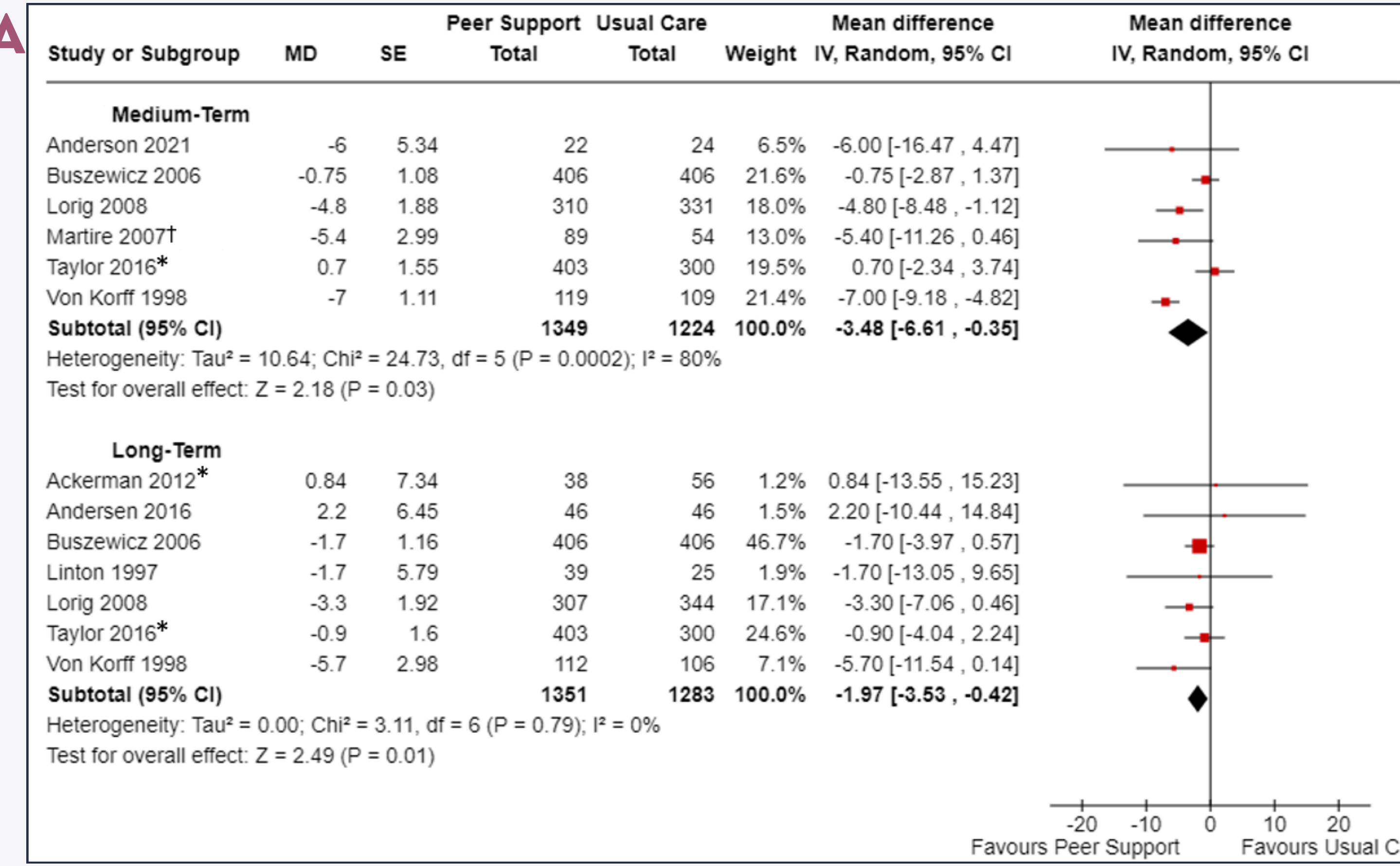


Figure 3. A) Pain intensity (0-100 scale) & B) self-efficacy meta-analyses for peer support intervention compared with usual care.

Self-management, quality of life, and social support outcomes could not be pooled & had mixed evidence.

