

Communication and Activation in Pain to Enhance Relationships and Treat Pain with Equity (CŌOPERATE)

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Disclosures



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**CONFLICTS OF
INTEREST: NONE**

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Background

Chronic pain affects two-thirds of Veterans

Racialized disparities in pain treatment

- Well-documented (in and out of VA)
- Persist despite national priorities focused on health equity
- Black patients experience
 - Greater pain severity
 - Worse pain outcomes
 - Inadequate pain treatment—including being offered fewer options than White patients

Background

- Racialized disparities in patient activation
 - Having the knowledge, confidence, and skill to manage one's health
 - Greater patient activation is associated with positive health behaviors
 - Exercise
 - Self-management
 - Lower healthcare utilization
 - More positive experiences with care
- Black patients (including Veterans) exhibit lower levels of activation than White patients.

Gap in patient activation: meaningful differences in healthcare experiences

- Relative to White patients, Black patients
 - Receive less health information from providers
 - Show reluctance to ask questions, share concerns, and articulate opinions/preferences
 - Have shorter clinic visits
 - Report less positive clinical encounters
 - Are less likely to participate in shared treatment decision-making

Background

Summary

Patient activation is a critical ingredient in **facilitating effective self-care**.

- Especially important as evidence builds for nonpharmacologic pain treatments, which typically require considerable patient commitment.

Patient activation is important for **effective patient-provider communication**.

- Communication is critical for effective pain care.

Targeting **patient activation** represents a novel and important path to **reducing disparities** in chronic pain care.

The COOPERATE Intervention

Delivery

- Delivered by coaches with Master's degrees in clinical psychology
- Via phone
- Individual sessions
- 6 sessions over 12 weeks



COOPERATE targets
patient activation by
focusing on two domains:

- Clarification and
prioritization of goals
 - Coaches help participants
identify goals and connect
goals to their values and
important people in their
lives.
- Communication
 - Agenda setting
 - Formulating specific and
effective questions
 - Role-playing with coaches
to practice skills

The COOPERATE Intervention

Attention Control Group

- Matched for number of contacts but not time
- Control participants received a phone call from a research assistant on the same schedule as the coaching sessions.
- They were asked a series of questions about their current pain, what they're doing now for their pain, and if anything about their pain or pain care has changed since the last call.



Study Design

250 patients randomized to
intervention or attention
control



All participants were Veterans
with chronic MSK pain who
identified as Black or African
American

Outcomes

Patient Activation—Primary Outcome

Secondary Outcomes

- Communication Self-Efficacy (Perceived Efficacy in Patient-Physician Interactions—PEPPI-5)
- Pain Intensity and Interference (Brief Pain Inventory)
- Psychological Functioning
 - Depression (PHQ-8)
 - Anxiety (GAD-7)
 - Coping Strategies (CSQ short form)

Outcomes

Baseline

3 months (Primary Endpoint)

6 months (Sustained Effects)

9 months (Sustained Effects)



Statistical Considerations

- Powered to detect a 0.40 effect size on the primary outcome (patient activation) at 3 months
- Sample size accounted for planned 20% attrition at 3 months
- Intent-to-treat approach
- Linear mixed model for primary and secondary outcomes
- Covariates: baseline working alliance (specified *a priori*) and baseline # of comorbid conditions (due to imbalance between groups)
- Šídák adjustments were made for multiple comparisons at a given time point.



Results

Baseline Characteristics

All participants
were Black
Veterans with
chronic pain

83% Male

Mean age: 61
years

74% at least
some college or
tech/business
school degree

44% Married or
Partnered

43% employed,
33% retired

51%
“comfortable”
income

Retention



Assessment completion rate

89% at 3 months

85% at 6 months

81% at 9 months



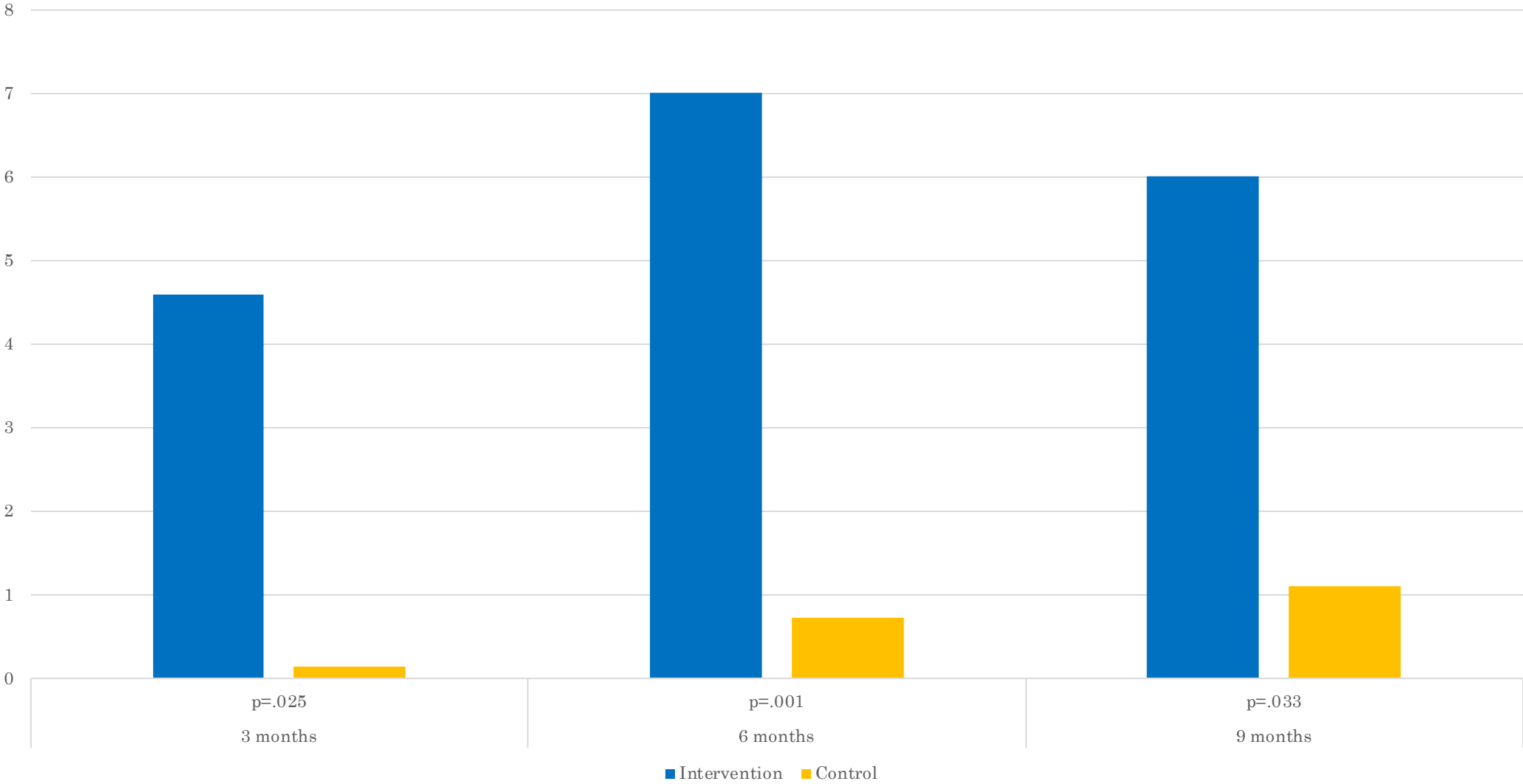
Intervention adherence

72% completed all 6 sessions

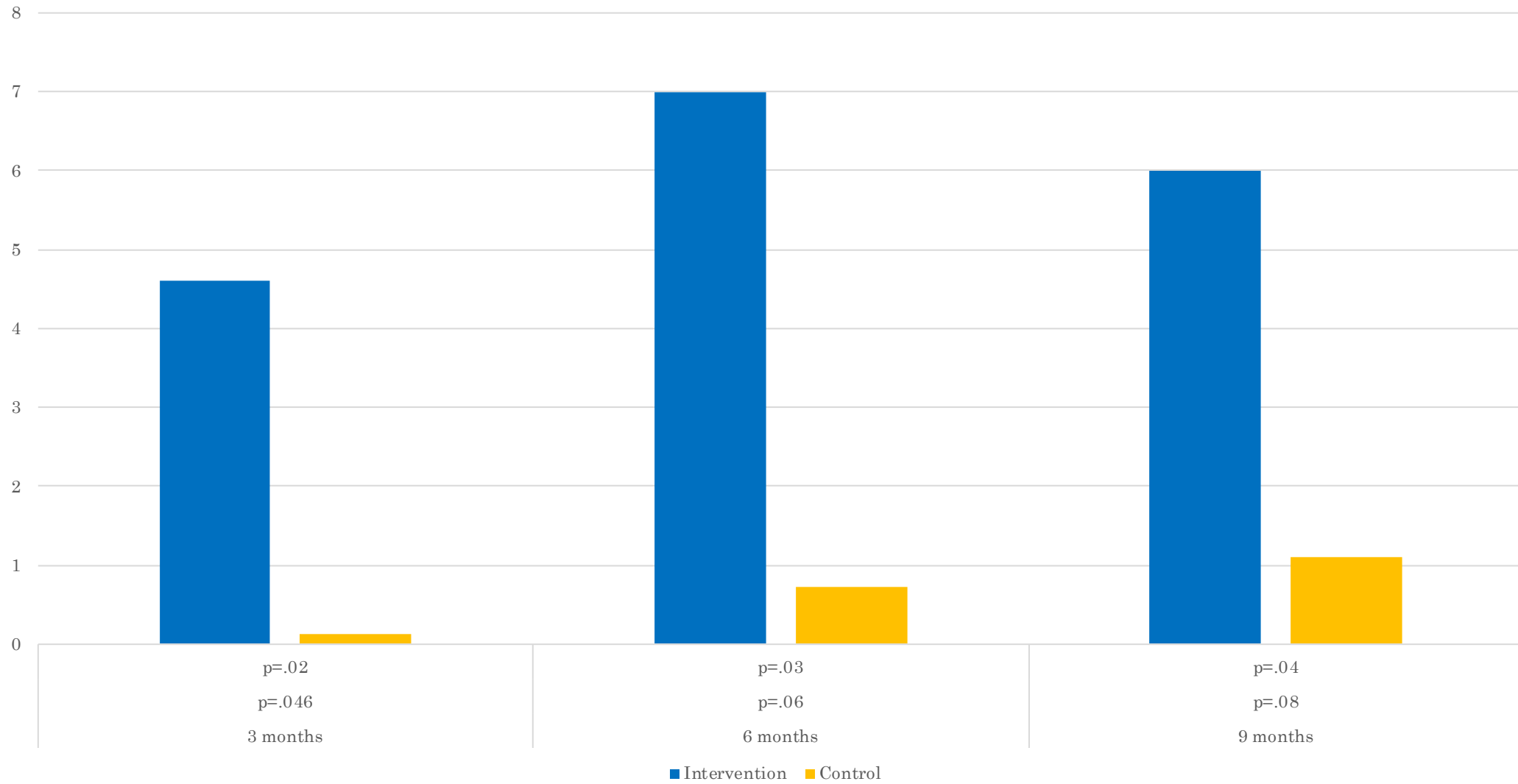
13% completed 4-5 sessions

15% completed ≤ 3 sessions

Change in Patient Activation from Baseline

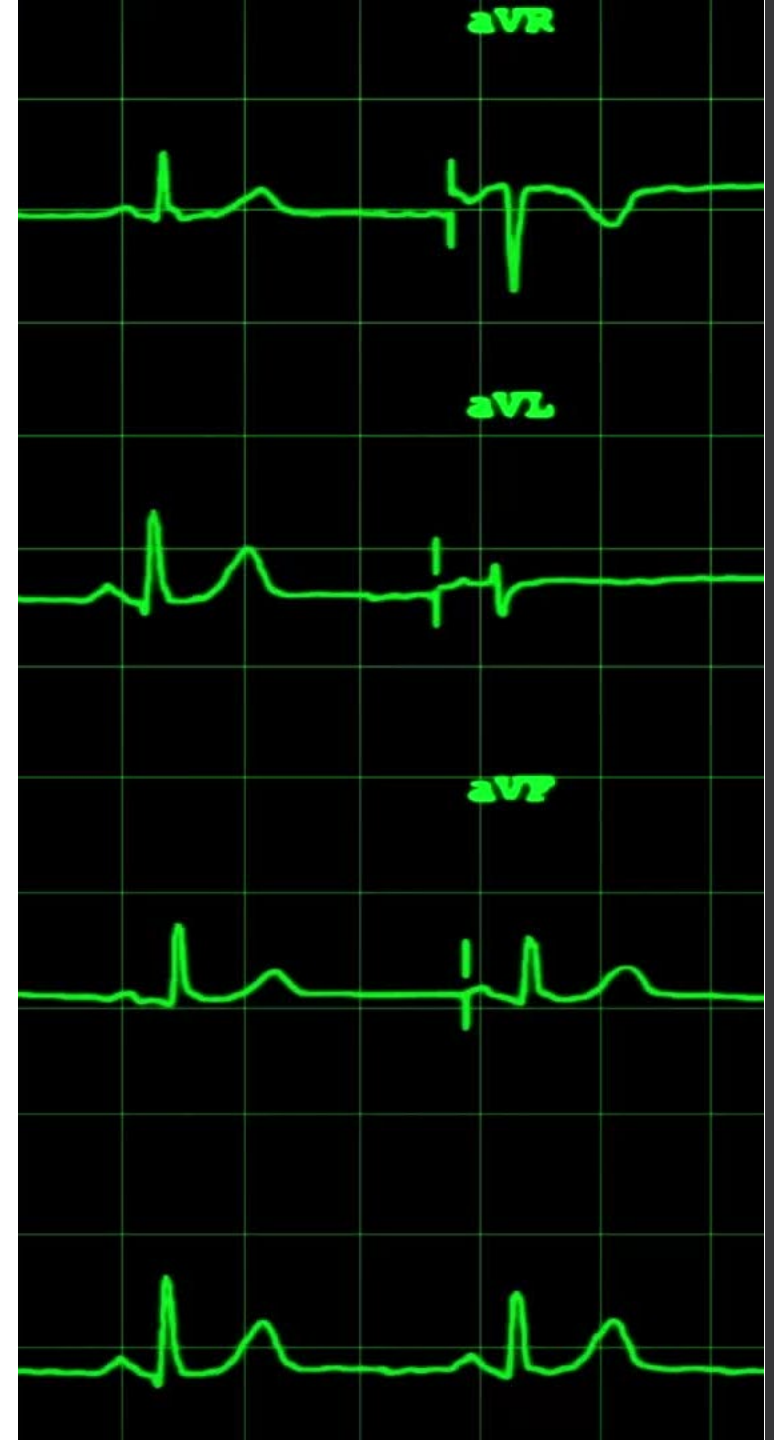


Change in Communication Self-Efficacy from Baseline

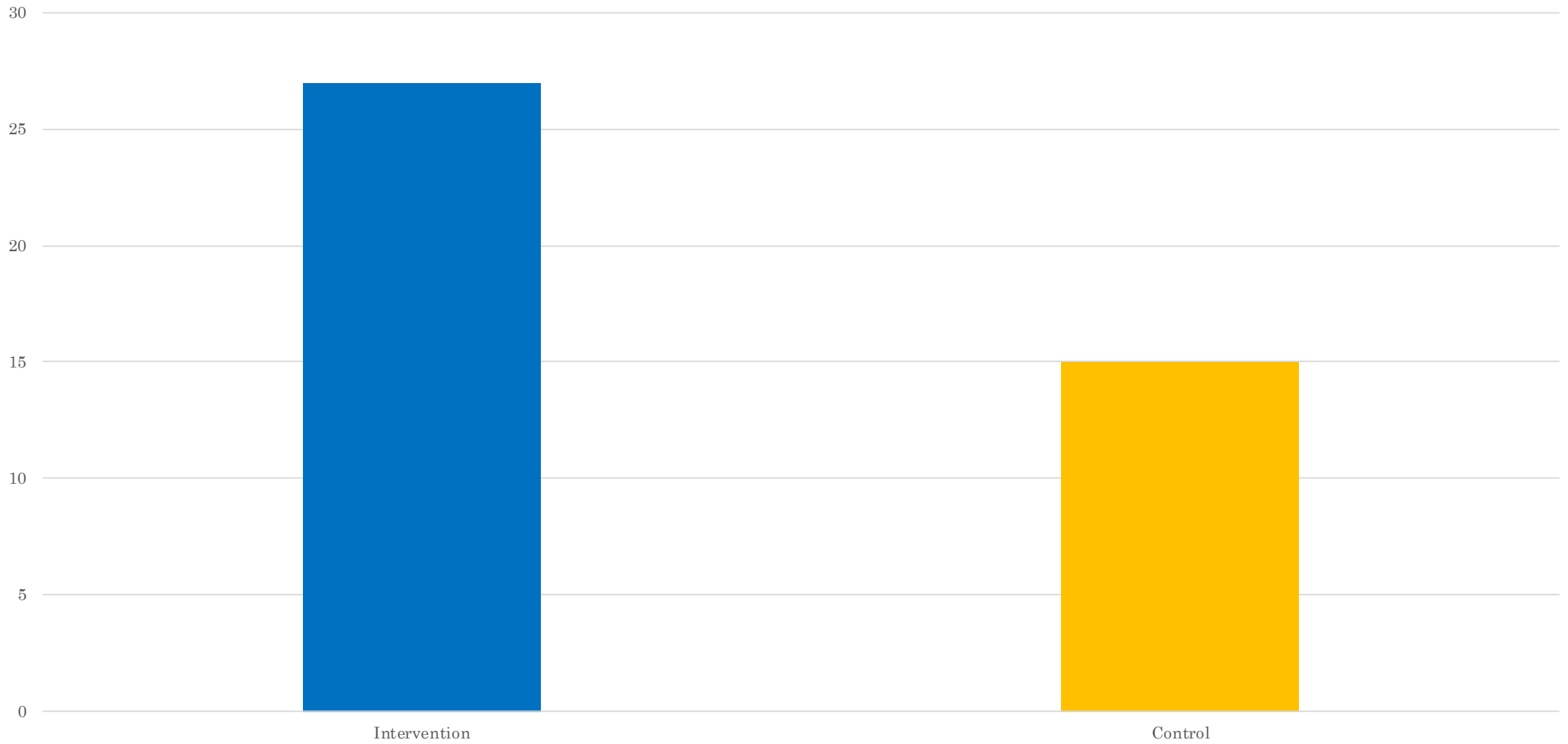


Pain Intensity and Interference

- Decreased in the intervention group at 3 months but differences were not significant after adjustment.
- More intervention participants experienced $\geq 30\%$ reduction in pain at 3 months (27% versus 15%, $p=0.04$).



Percentage with $\geq 30\%$ Reduction in Pain at 3 months



Psychological Functioning

Depression

- Improved in Intervention Group
- Worsened in Control Group

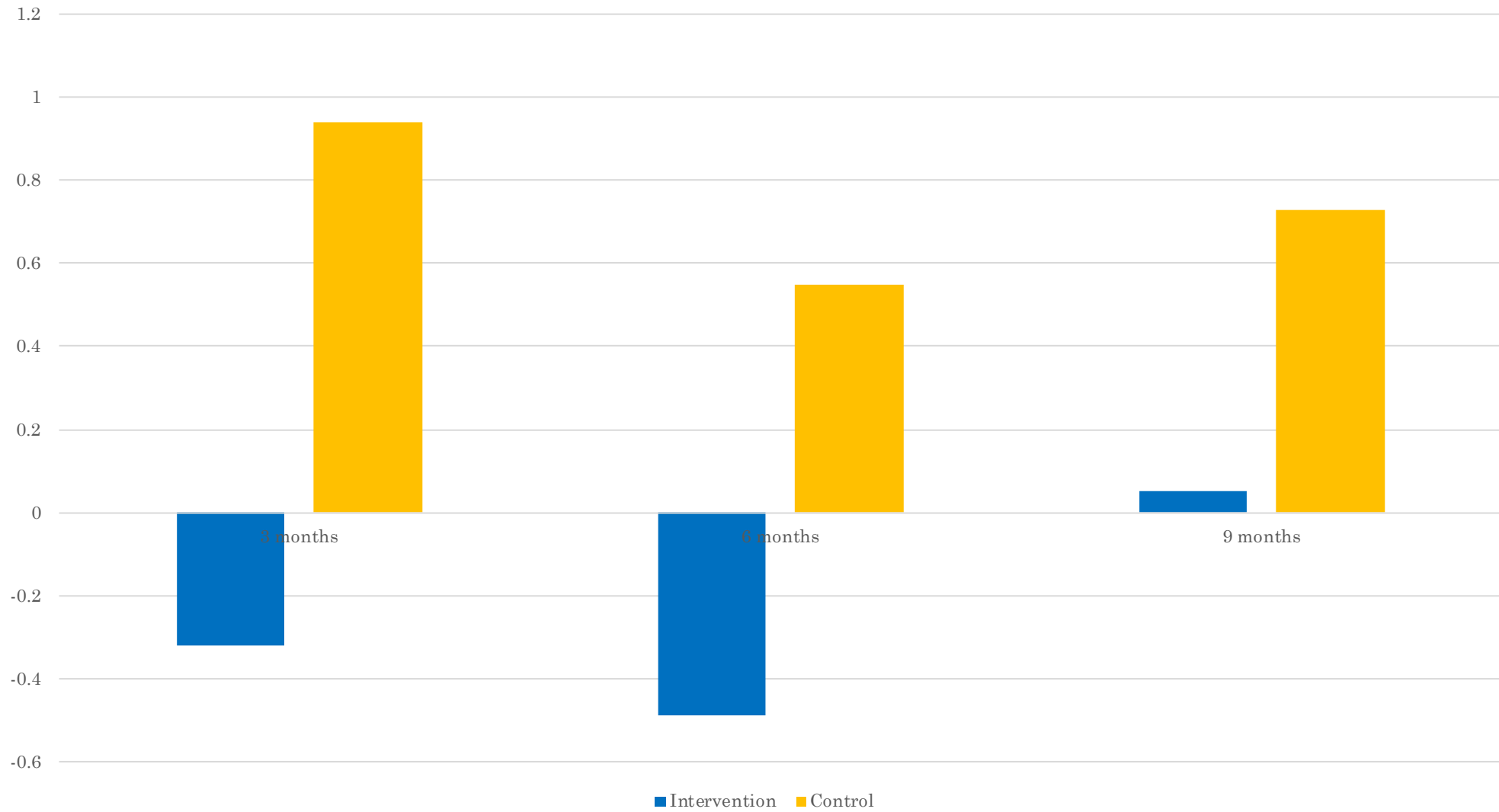
Anxiety

- Improved in Intervention Group
- Worsened in Control Group

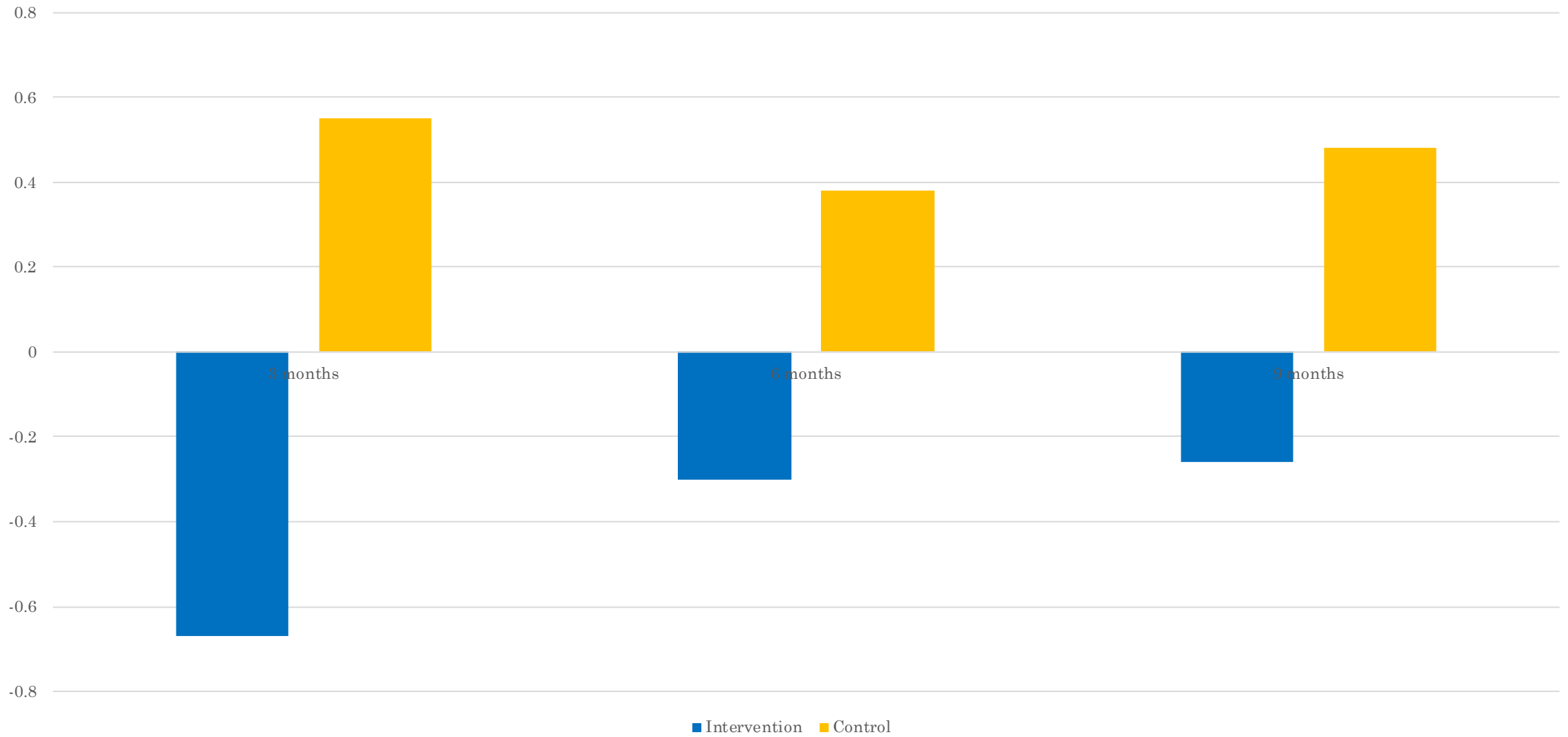
Differences not statistically significant
after adjusting for multiple outcomes

Coping Strategies: No changes

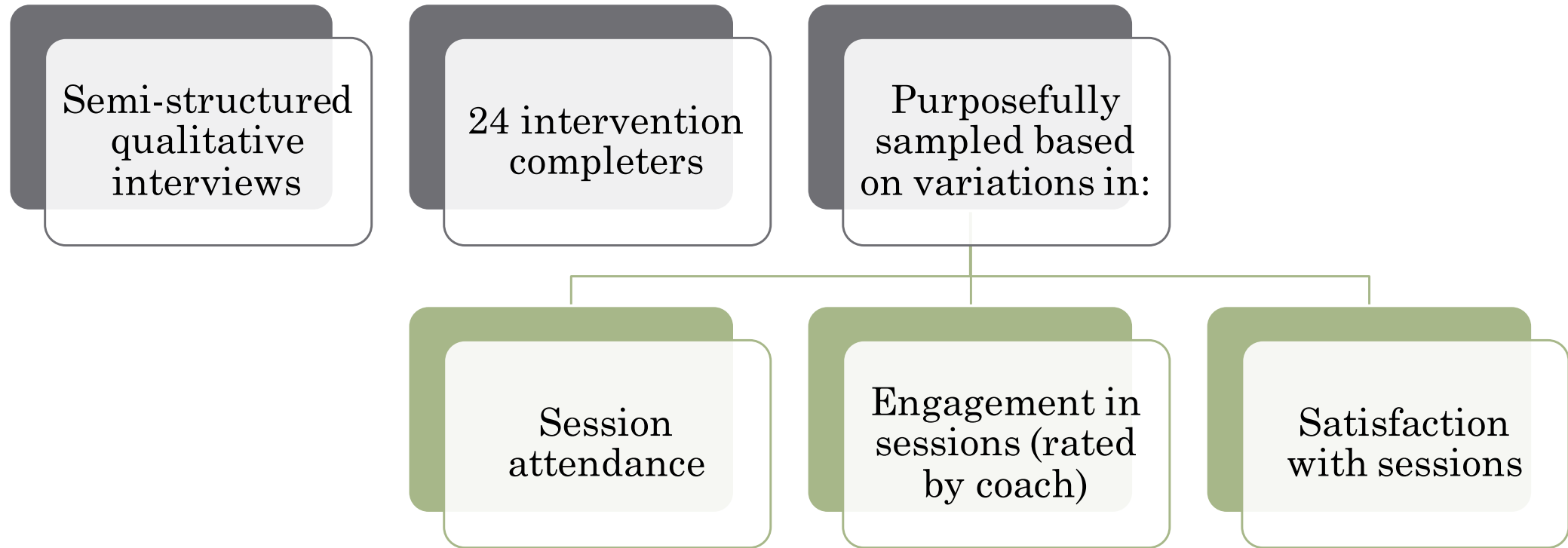
Change in Depression from Baseline



Change in Anxiety from Baseline



Post-Intervention Interviews



The Coaches



He *listened*. He kept me on target and focused...I could feel that he had a *genuine care*...I could tell he genuinely wanted to help, and when I feel that, it's easy to open up, it's easy to talk.



The best thing was she seemed like she was *genuinely concerned about me*.



From the moment he called me, *he was very interested in what it was that I had to say and what was going on with me...This is somebody that cares, because you talk to so many people that don't care. I kept asking him, how long do I get to keep you? So yeah, I enjoyed him, I really did.*



She greeted me, and she talked to me. *She made me use my brain, you know, and that made me feel good.*



I would look forward to [coach] calling me. She'd laugh, and I'd say hey Coach [Name]. So we had a good relationship...*I kind of looked forward to talking to her.*

Tools and Skills

- Visit preparation
- Asking focused, effective questions
- Expressing concerns and communicating goals to providers



Visit Preparation

Writing out an agenda and making lists of questions to ask in advance

“I just never thought about [writing things down before my appointment]...I’m always rushed...and I forget. So now, before my appointment, I’ll start jotting down things I’m concerned about...I think that’s the best thing that I learned: how to communicate better with my doctor.”



Writing down questions and concerns in advance

“helped me be more organized”

made participants “feel better about those appointments rather than it just being a random process.”

“made me more focused and direct in dealing with my provider”

helped participants to be “focused on how I was talking about my pain.”

Question Asking

Participants talked about how they gained the skills and confidence

- to speak up in their PCP visits,
- to ask questions, and
- to seek clarification if they were not satisfied or did not understand something.

Question Asking



“I got more effective at approaching my doctor and learning how to manage pain... [The coach is] trying to make you ask the right questions, and it really works. So, mainly when I go in there, I use less time. I ask what I need, and basically, I get it.”



“If I didn’t understand something, [I’d] have [my doctor] explain it in a different way. Keep asking questions until I get the understanding I needed.”



“[After COOPERATE coaching], it seemed like [my doctor] was taking his time because ...a lot of times he's in a hurry. So I was able to say, no, no, no, let's slow down here because I want to make sure I have clarity on this situation.”

Expressing Concerns and Communicating Goals

Before COOPERATE “I always *let them tell me what the course of action was.*” However, after COOPERATE, “I was able to *take back those doctors’ appointments* and really express what I needed to express...[Now] I think they’re more attentive...[and] I feel a lot better about things.”

I was not that strong of a person before this study... *now I feel like I can speak my chest out and say yeah I need this addressed, I need this taken care of.* And, you know, what can you do for me, you know?... and when I go home, I can sleep with a clear conscience. *I’m not going home [thinking about] what I should have said.*

Greater participation in care

“I presented some ideas and told [my doctor] what I wanted to be able to do... So *I had some kind of input in my treatment.*”

“I had a really good template that I could use from conversations with [my coach]. [My doctor and I] were able to have *a really thorough discussion about medication, what would fit with my lifestyle, my budget, my goals, things like that.*”

Benefits of Acquiring New Skills

Confidence and Self-Efficacy

- “The confidence...being able to take ownership of my own treatment...and understanding that I don’t have to be a PhD to be able to communicate with a doctor.”
- “I feel like I can get more help, more things done...We’re in control now more than we had been.”

Improving Health Equity

“Honestly, I think [COOPERATE] is something that’s needed, because I think there are a lot of African Americans out there who are afraid or intimidated by going to the doctor. So I think this [intervention] is something that gives them the opportunity to get confidence, to be able to know that they can do stuff...It’s hard being a Black man in America. Sometimes it’s just a little rougher.”

“It was a very helpful [study] as a Black man, period. You guys gave us a way to really fight for what we really want and how we feel we should be treated....So it really helped me.”

Benefits of Acquiring New Skills

Discussion

- COOPERATE produced lasting improvements in patient activation and short-term improvements in communication self-efficacy.
- More intervention participants experienced clinically significant decreases in pain at 3 months compared to the control group.
- Depression and anxiety improved for intervention participants while worsening for control group (not significant after adjustment).
- Retention was high.
- Participants described feeling more confident about getting what they want out of their clinic visit, including persevering with question asking and being more involved in treatment decisions.

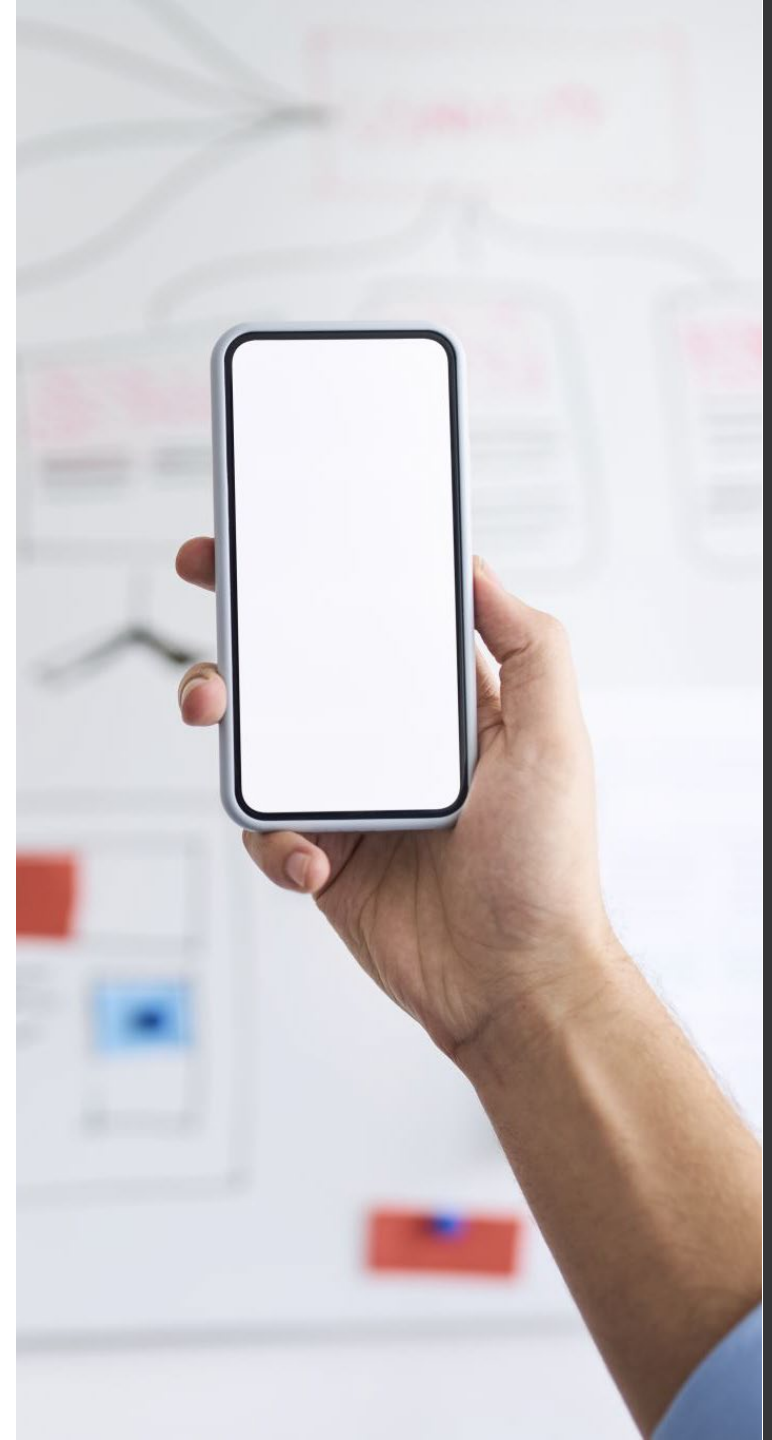
Discussion

Increases in patient activation have clinically important implications.

- COOPERATE produced increases of 4.6 to 7 across timepoints
- Increases of 3-5 points have been shown to be associated with meaningful and lasting improvements in health behaviors.
- Especially important in pain
 - Self-management key part of chronic pain treatment
 - With increased emphasis on multimodal care, including nonpharmacologic treatments—which require regular, active commitment (i.e., patient activation).

A Note on Intervention Delivery

- Via phone intentionally—to increase our reach, especially for people in underserved communities who might not have access to transportation.
- Likely helped with high retention rate (85% completing $\geq 75\%$ of sessions).
- Individual, one-on-one approach maximized patient centeredness and allowed tailoring to meet individuals' needs.
- Allowed for relatively uninterrupted intervention delivery throughout pandemic.
- Facilitates scalability as we plan next steps.



Influence of Pandemic

- About 2/3 of study participants participated after pandemic began
- Communication Self-Efficacy
 - Gains maintained across timepoints, but not statistically significant
 - Pandemic-related clinic closures likely limited opportunities to practice new communication skills and further increase communication self-efficacy
- Depression and Anxiety
 - Improved for intervention participants, worsened for control participants
 - The pandemic was associated with higher rates of depressive symptoms, anxiety, and psychological distress
 - Minoritized groups disproportionately affected early in pandemic
 - Possible that COOPERATE had a protective effect

- A telephone-based coaching intervention led to lasting increases in patient activation and short-term increases in communication self-efficacy for Black Veterans with chronic musculoskeletal pain.
- Targeting patient activation—with its critical role in self-management—is a promising, but underused, path toward improving pain management and achieving equity in pain care.

Conclusions

Conclusions

- COOPERATE focuses on the individual, while racial injustices and inequities occur on multiple levels.
 - Empowering the individual and equipping them with autonomy over their own health is critical—and highly valued, as our participants showed.
 - Individual-level intervention, while necessary, is likely insufficient to fully achieve health equity.
 - Interventions like COOPERATE may be most effective delivered alongside other interventions targeting multiple levels of healthcare disparities (e.g., provider- and system-level interventions).

Study Team

- Matt Bair, M.D., M.S.
- Diana Burgess, Ph.D.
- Joanne Daggy, Ph.D.
- Johanne Eliacin, Ph.D.
- Adam Hirsh, Ph.D.
- Laura Myers, Ph.D.
- Kevin Rand, Ph.D.
- Michelle Salyers, Ph.D.
- Mackenzie Shanahan, Ph.D.
- Phil Procento, M.S.
- Jasma Adams, M.P.H.
- Perla Flores, B.S.
- Tetla Menen
- Tony Perkins, M.S.

References

- **Matthias, M.S.,** Daggy, J.K., Perkins, A.J., Adams, J., Bair, M.J., Burgess, D.J., Eliacin, J., Flores, P., Myers, L.J., Menen, T., Procento, P., Rand, K.L., Salyers, M.P., Shanahan, M.L., & Hirsh, A.T. (2023, in press). Communication and Activation in Pain to Enhance Relationships and Treat Pain with Equity (COOPERATE): A randomized clinical trial. *Pain*.
- **Matthias, M.S.,** Adams, J., Burgess, D.J., Daggy, J., Eliacin, J., Flores, P., Hirsh, A.T., Myers, L.J., Perkins, A.J., Menen, T., Procento, P., Rand, K., Salyers, M.P., Shanahan, M., & Bair, M.J. (2022). Communication and activation in pain to enhance relationships and treat pain with equity (COOPERATE): Rationale, study design, methods, and sample characteristics. *Contemporary Clinical Trials*, *118*, 106790. DOI: 10.1016/j.cct.2022.106790.



Questions?