

Group-Mediated Activity Counseling and Self-Reported Physical Activity in Older, Knee Osteoarthritis Patients: Evidence from the IMPACT-Pilot Trial

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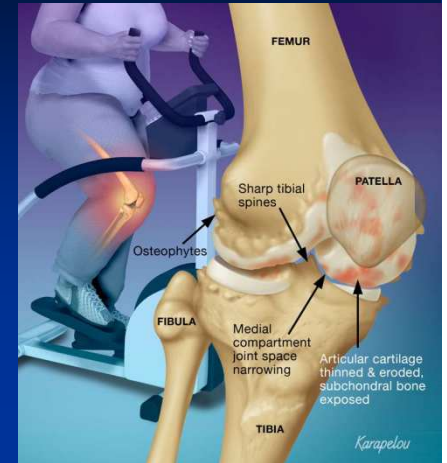
Knee Osteoarthritis (OA)



- Degenerative joint disease characterized by loss of cartilage and joint space narrowing
- Pain, stiffness, and fatigue accompanying knee OA is linked with reduced quality of life
- Knee OA is a leading cause of activity restriction, functional limitations, and disability

Physical Activity (PA) and Knee OA

- PA consistently results in modest, yet meaningful, improvements in clinically-relevant OA outcomes
- Poor post-intervention PA adherence and erosion of treatment effects undermine the efficacy of PA interventions for knee OA patients



Applying the Group-Mediated Cognitive Behavioral (GMCB) Intervention to Knee OA Patients

- **Determining the efficacy of innovative PA promotion interventions is integral to enhancing lifestyle approaches to managing knee OA**
- **The GMCB is one innovative intervention that has produced meaningful increases in PA among older adults with chronic disease**

Brawley et al., 2000; Rejeski et al., 2003; Focht et al., 2004; Rejeski et al., 2011

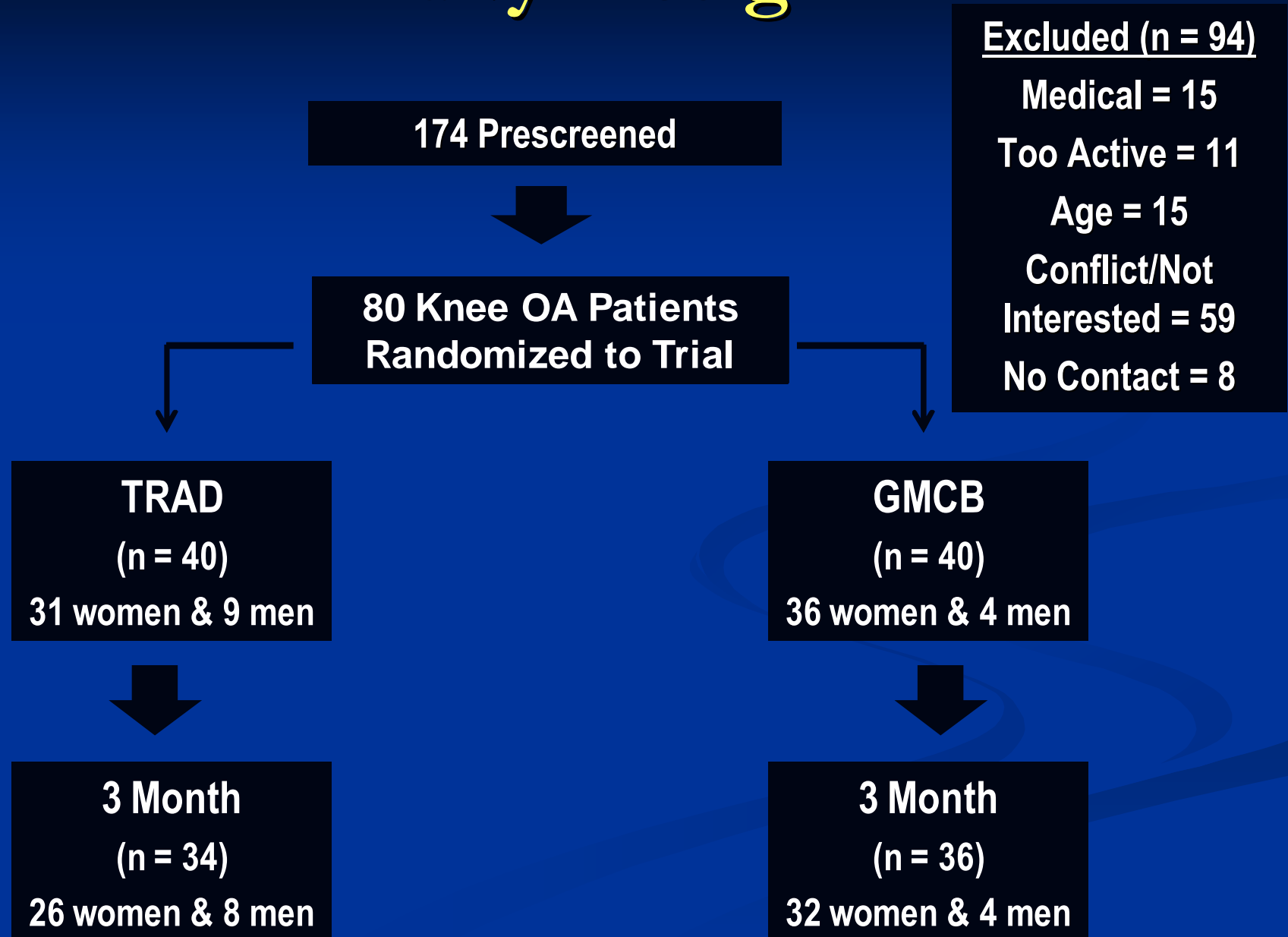
Improving Maintenance of Physical ACtivity in OA Trial Pilot (IMPACT-P)

- IMPACT-P is a single blind, 2 arm randomized controlled pilot trial
- Determine the comparable efficacy of traditional exercise therapy (TRAD) and GMCB PA intervention approaches for improving PA and select OA outcomes in sedentary, older knee OA patients

Participants

- 80 sedentary, knee OA patients
- *M* age = 63 years; *SD* = 6.52
- 67% Caucasian, 26% AA, 4% Latino, 2% Asian
- Self-reported pain and functional limitations

Study Design



Procedures

- ***TRAD Intervention.*** Participants received a traditional supervised center-based exercise intervention and education.
- ***GMCB Intervention.*** GMCB participants received the same exercise prescription coupled with 20-min of group-based self-regulatory skills counseling
- 36 contact hours provided to each arm
- Differential timing, structure, and goals of the intervention delivery

Procedures

Intervention Criteria	GMCB	TRAD
Exercise Prescription	60 Minutes/Session - 30-40 Min Moderate Intensity Walking and Progressive Lower Body Strength Training 8-12 Reps of 4 Lower Body Exercises	60 Minutes/Session - 30-40 Min Moderate Intensity Walking and Progressive Lower Body Strength Training 8-12 Reps of 4 Lower Body Exercises
Supervised Ex Month 1	2 Sessions/Week	3 Sessions/Week
Supervised Ex Month 2-4	1 Sessions/Week	3 Sessions/Week
Supervised Ex Month 5-6	2 Sessions/Month	N/A
Supervised Ex Month 7-9	1 Session/Month	N/A

GMCB Intervention Goals

- Identical exercise prescription as TRAD arm
- Systematically phased: (a) decrease in center-based exercise and (b) increase in independent exercise and PA across the trial
- Practice of self-regulatory skills via behavioral homework assignments

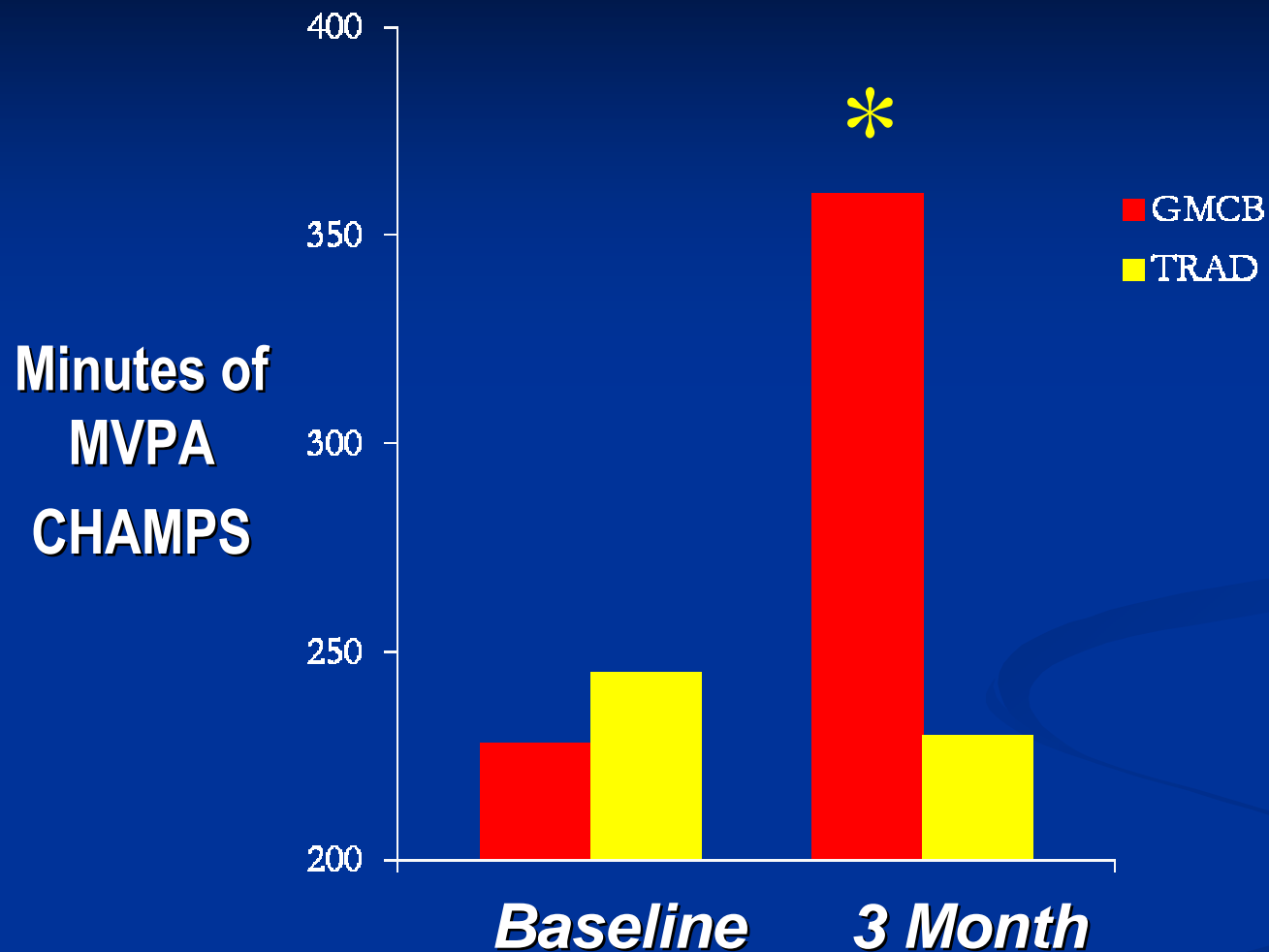
GMCB Counseling Targets

- **Self-monitoring of activity, effort, and symptoms**
- **Individual and group goal-setting**
- **Social problem-solving to overcome barriers to increasing physical activity**
- **Mindfulness-based approaches pain management**
- **Independent activity planning and relapse prevention strategies**

Measures/Analysis

- **≥ Moderate Intensity PA (MVPA)**: Self-reported MVPA was assessed via the CHAMPS PA questionnaire (Stewart et al. 2001)
- ***Cohen's d effect sizes***: calculated via mean difference/pooled SD
- Assessments were obtained by study staff blinded to intervention assignment at baseline and 3 months
- 2 (Intervention: GMCB & TRAD) X 2 (Time: Baseline & 3 Month) ANCOVA controlling for age & BMI – Intention to treat

Results



*Treatment x Time
Interaction $p < .01$*

*GMCB $d = .42$
TRAD $d = -.14$*

Conclusions

- Findings from the IMPACT-P trial provide evidence supporting the feasibility and preliminary efficacy of the GMCB approach for promoting short-term changes in PA among older knee OA patients
- Results suggest that integrating self-regulatory skill counseling in PA interventions result in superior short-term increases in MVPA relative to traditional center-based exercise approaches
- GMCB intervention represents a valuable approach to be implemented in the design and delivery of future PA interventions targeting older knee OA patients

Thank You !