

# What are the Experiences of Rehabilitation Interventions such as Motivational Interviewing or Therapeutic Alliance?

Doug Gross, PhD, PT



FACULTY OF  
**REHABILITATION  
MEDICINE**  
UNIVERSITY OF ALBERTA

Pursuing **your best**

Department of  
Physical Therapy

# *Olivia*

Pills and imaging

Rest and avoid activity

Stop yoga and power walks

Fear and uncertainty about work

PT/Chiro – passive care and ‘warnings’

THE BODY

# Forget Pills and Surgery for Back Pain

Many physicians are advocating a simpler approach to treating lower back pain:  
exercise

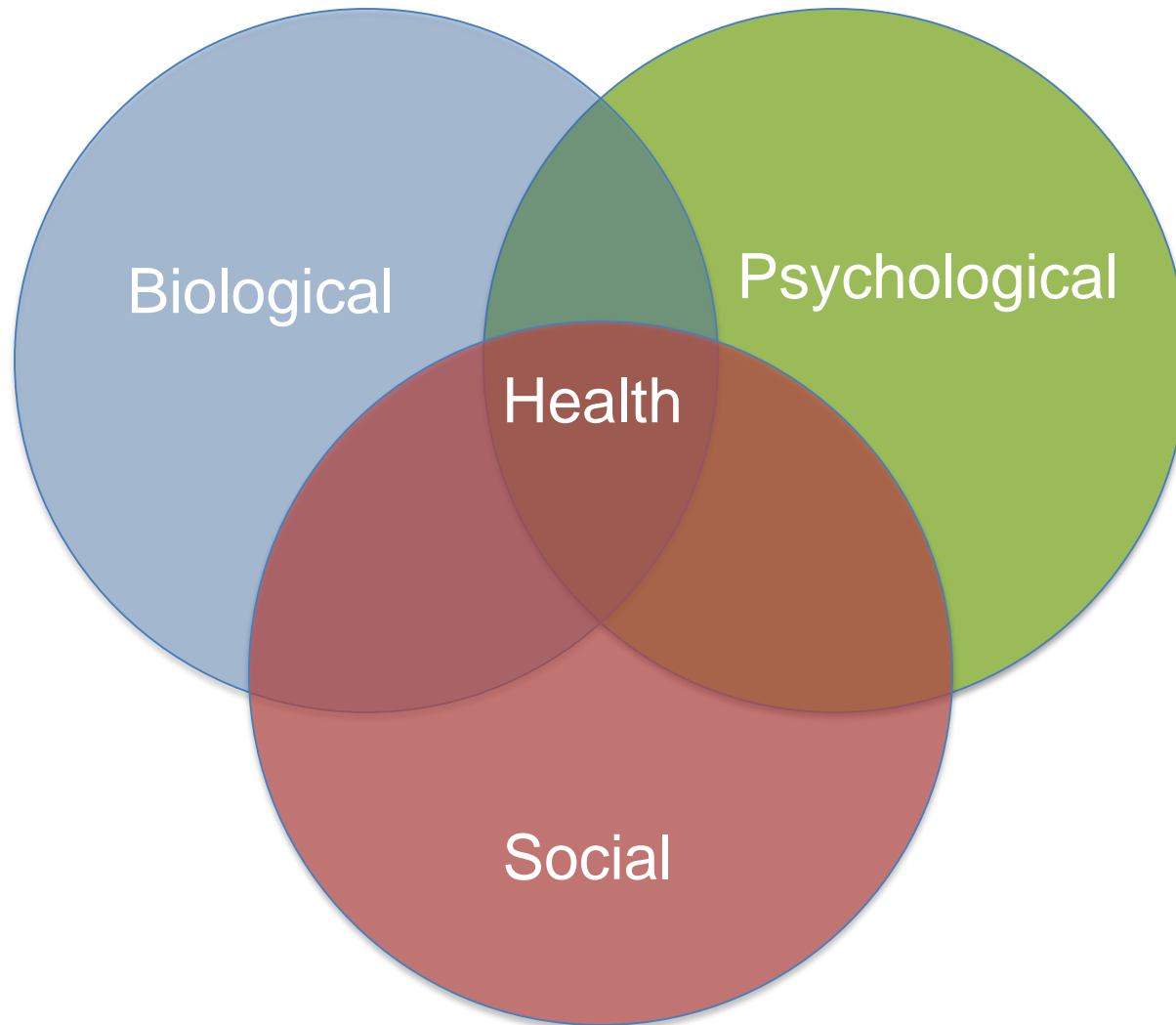
---

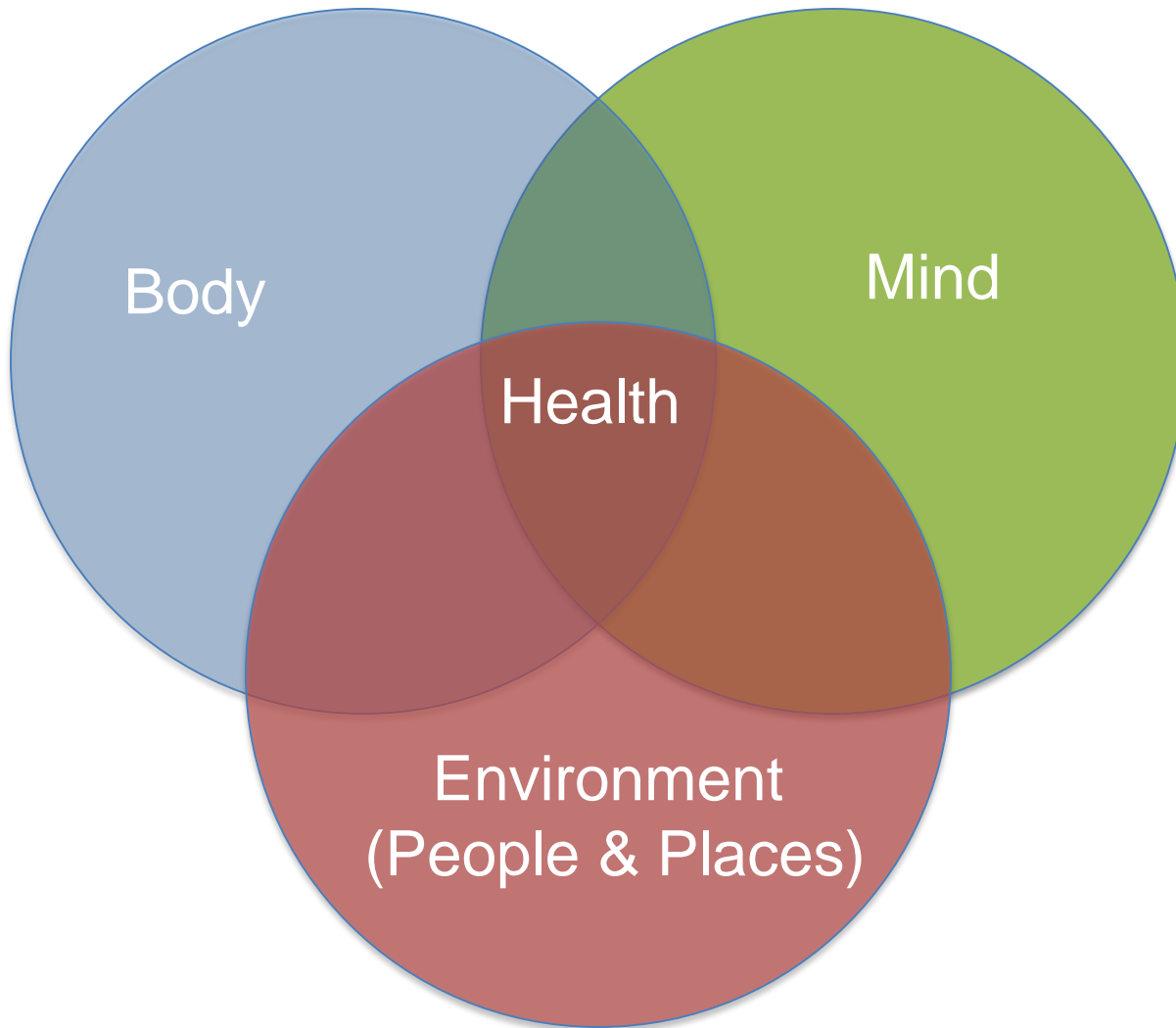
By Daisy Yuhas on October 1, 2017

**SCIENTIFIC  
AMERICAN**



# Biopsychosocial rehab reduces work disability





Body

Mind

Health

Environment  
(People & Places)

# **Body** – Standardized evidence-based models of care and rehab reduce work disability

- Timely assessment and reassurance
- Acute stage pain coping strategies to promote staying active
- ‘Goldilocks’ functional restoration
- Integrated workplace interventions


SPINE Volume 32, Number 25, pp 2898–2904  
©2007, Lippincott Williams & Wilkins, Inc.

■ **The Influence of a Continuum of Care Model on the Rehabilitation of Compensation Claimants With Soft Tissue Disorders**

Brian Stephens, PhD,\* and Douglas P. Gross, PhD†

---

# Multidisciplinary biopsychosocial rehabilitation for chronic low back pain: Cochrane systematic review and meta-analysis

 OPEN ACCESS

Steven J Kamper *senior research fellow*<sup>1,2</sup>, A T Apeldoorn *research fellow*<sup>2</sup>, A Chiarotto *research assistant*<sup>2</sup>, R J E M Smeets *professor of rehabilitation medicine*<sup>3</sup>, R W J G Ostelo *professor of evidence-based physiotherapy*<sup>2,4</sup>, J Guzman *clinical assistant professor of medicine*<sup>5</sup>, M W van Tulder *professor of health technology assessment*<sup>4</sup>

- Increased odds of RTW compared with patients receiving physical treatment
- Patients gain small, long term benefits in pain and disability compared with usual care or physical treatments

*How do we optimize rehabilitation's effectiveness?*



# *Mind* – Integrate ‘Psych-Informed’ Strategies

- Client-centered counseling approach for resolving ambivalence (conflicting opinions)
- Goal is to increase intrinsic motivation to change from ***within*** instead of being forced from ***without***
- More sustainable RTW up to 1 year later

Motivational Interviewing  
administered by OTs and Kins

1-2 sessions of MI (~1 hour)



Archives of Physical Medicine and Rehabilitation

Available online 21 June 2017

In Press, Accepted Manuscript



Motivational Interviewing Improves Sustainable Return to Work  
in Injured Workers After Rehabilitation: A Cluster Randomized  
Controlled Trial

# Confirmed RTW at Discharge

	<b>MI</b>	<b>Control</b>
Unemployed	21.6%	9.5%
<i>MI-Adherent</i>	33.3%	
<i>MI with RTW goal</i>	<b>47.4%</b>	

Odds ratio = **2.64** (95% CI 1.09 – 6.41, p<0.05)

Employed	97.1%	94.1%
<i>MI-Adherent</i>	<b>100%</b>	

# Compensation Outcomes 1 yr Later

	<b>MI</b>	<b>Control</b>
<i>Employed</i>		
Any benefit recurrence	<b>4.5%</b>	9.1%
<i>Unemployed</i>		
Days receiving Partial Benefits (i.e. <i>return to modified duties</i> )	<b>8.2</b>	0.2

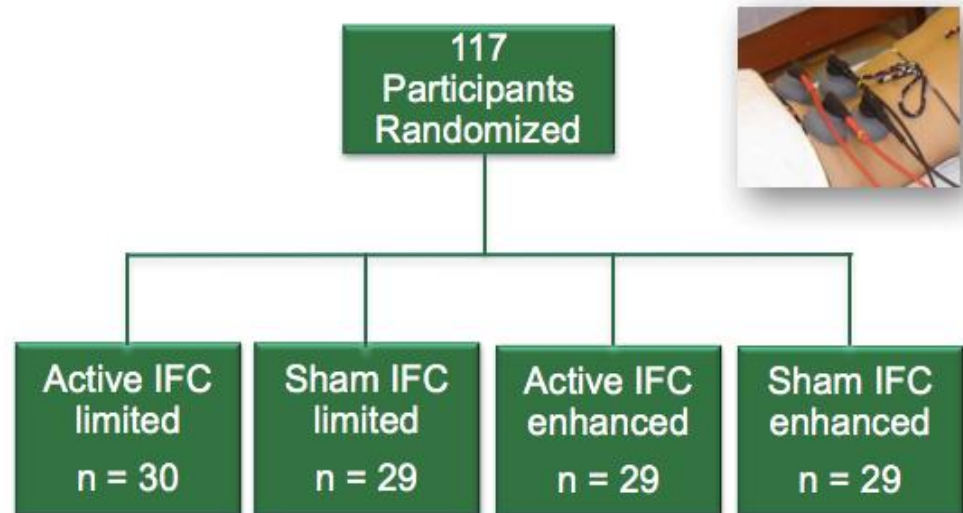
*Statistically significant difference ( $p < 0.05$ ) between groups.*

# **Social** - Context of care can be as important as the treatment itself



## *Enhanced Therapeutic Alliance*

Attentive listening  
Bond  
Connections



### **Enhanced Therapeutic Alliance Modulates Pain Intensity and Muscle Pain Sensitivity in Patients With Chronic Low Back Pain: An Experimental Controlled Study**

Jorge Fuentes, Susan Armijo-Olivo, Martha Funabashi, Maxi Miciak, Bruce Dick, Sharon Warren, Saifee Rashid, David J. Magee and Douglas P. Gross

*PHYS THER.* 2014; 94:477-489.

Originally published online December 5, 2013

doi: 10.2522/ptj.20130118

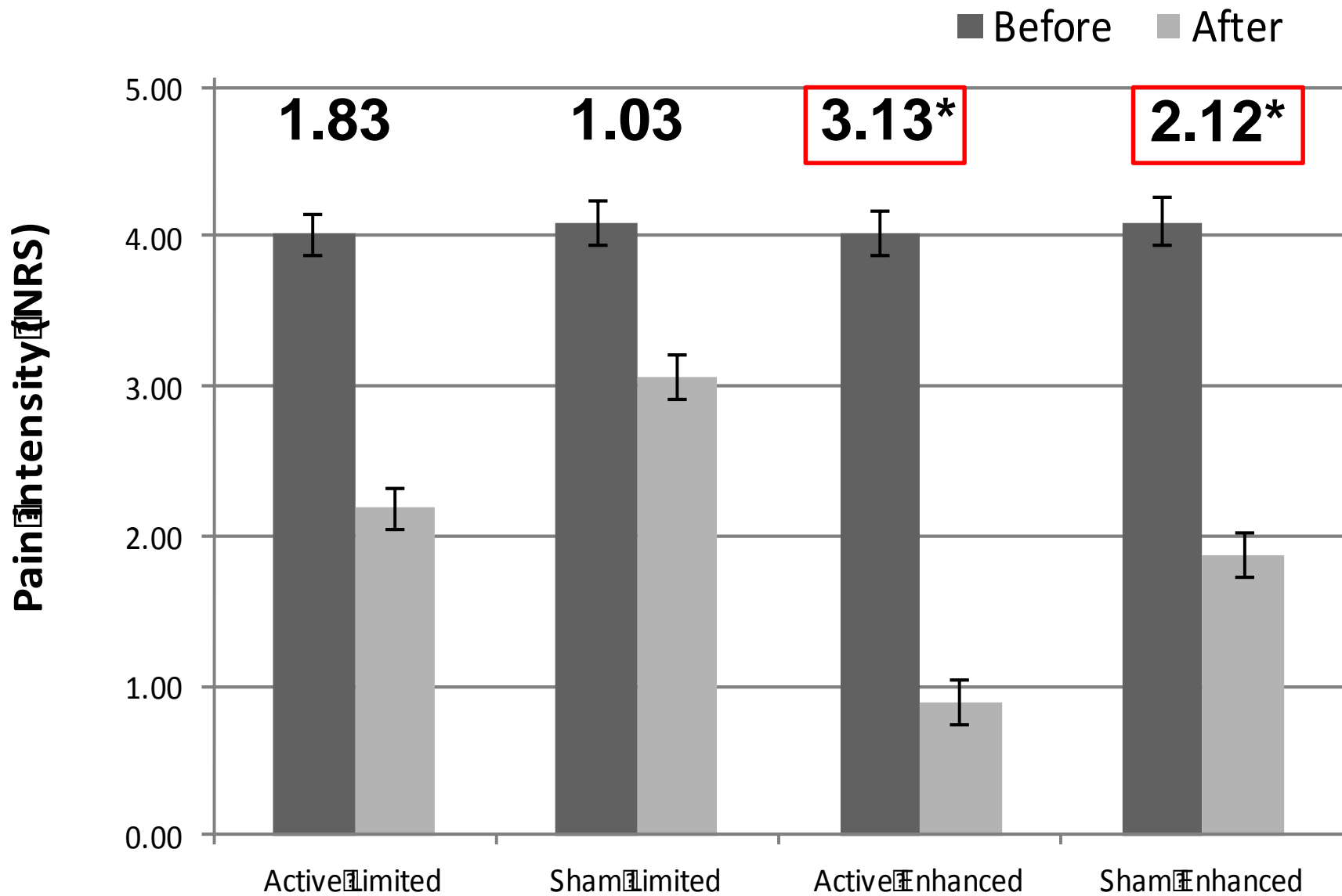


**Limited Therapeutic Alliance**

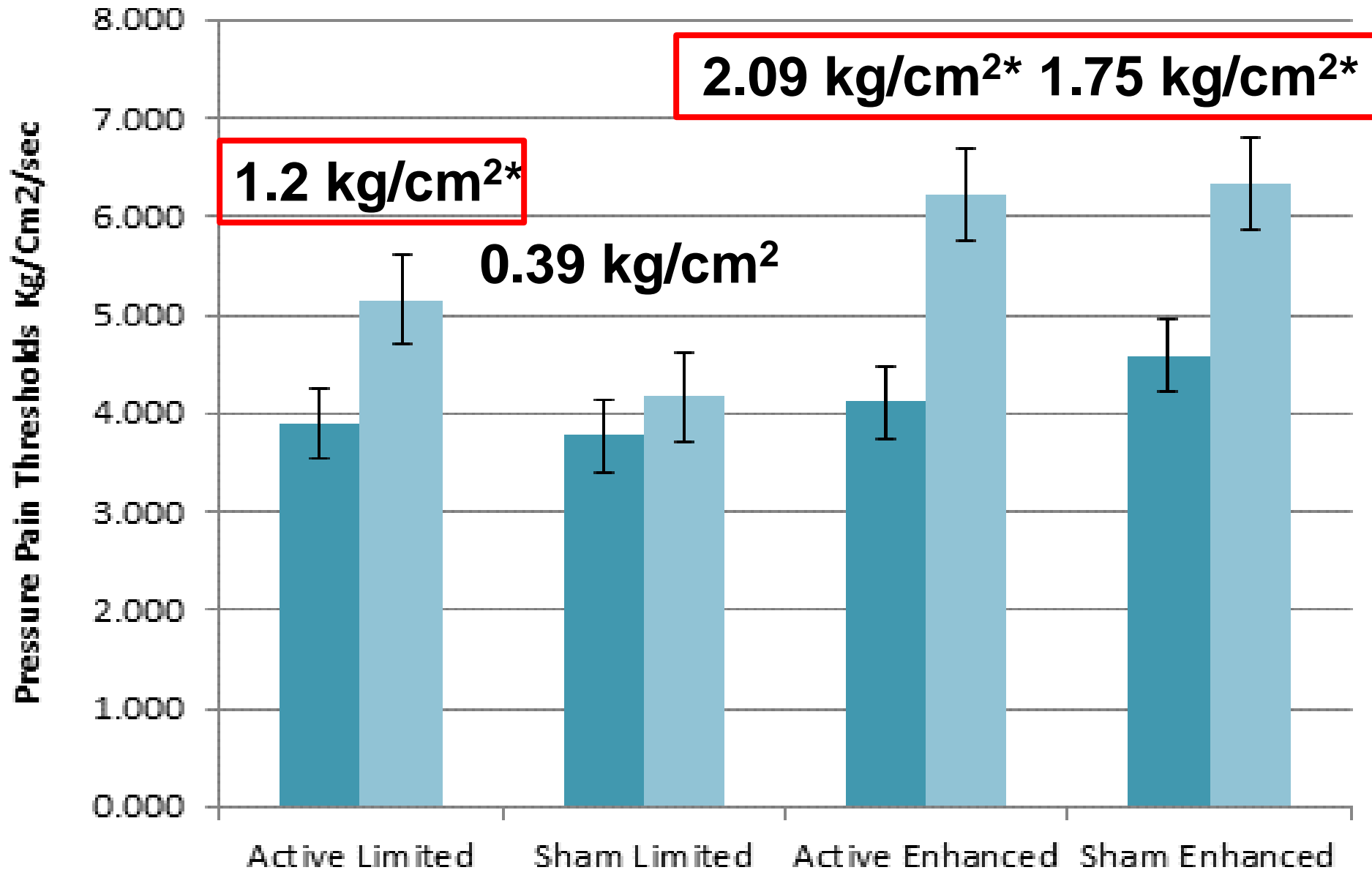


**Enhanced Therapeutic Alliance**

# Changes in Pain Intensity



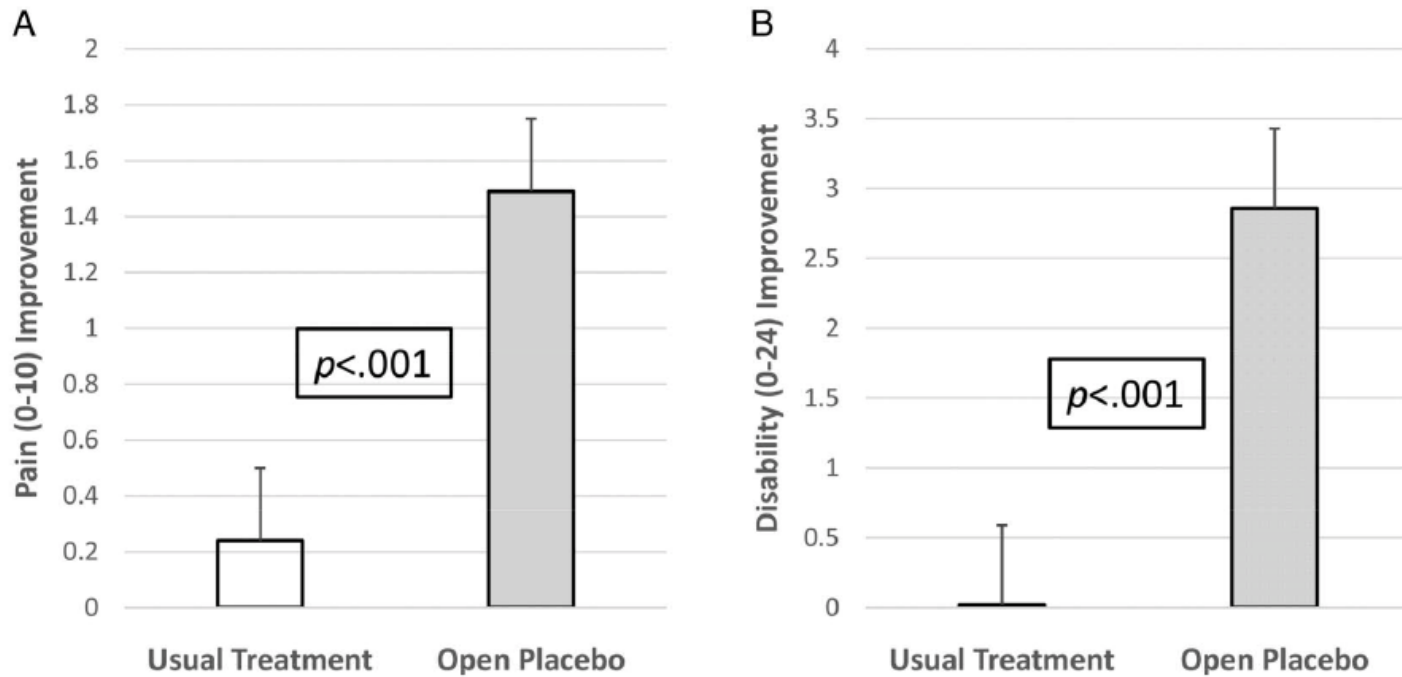
# Changes in Muscle Pain Sensitivity (PPT)





## Open-label placebo treatment in chronic low back pain: a randomized controlled trial

Cláudia Carvalho<sup>a,\*</sup>, Joaquim Machado Caetano<sup>b</sup>, Lidia Cunha<sup>c</sup>, Paula Rebouta<sup>c</sup>, Ted J. Kaptchuk<sup>d</sup>, Irving Kirsch<sup>d</sup>



**Figure 2.** Outcomes by treatment group at 21-day endpoint. (A) Mean adjusted change scores on the composite pain measure. (B) Mean adjusted change scores on the 24-item Roland-Morris Disability Questionnaire. Error bars represent standard errors of the mean.

# *Recommendations for Olivia:*

## Biopsychosocial rehab including:

- Functional restoration/graded activity  
Emphasize importance of activity despite pain
- Integrated workplace interventions  
Re-integrate at the nursery school asap

## Promising strategies to incorporate:

- Motivational interviewing
- Actively build therapeutic alliance

# Collaborators

## Graduate Students

Jorge Fuentes  
Maxi Miciak  
Susan Armijo-Olivo  
Martha Funabashi  
Joanne Park  
Alex Asante  
Arnela Suman  
Ziling Qin

## UAlberta

Geoff Bostick  
Maria Mayan  
Saifee Rashid  
Anthony Joyce  
Bruce Dick  
Sharon Warren  
Cary Brown  
David Magee  
Michele Crites-Battié  
Linda Carroll  
Anthony Russell  
Robert Ferrari  
Donald Schopflocher  
Colleen Norris  
Shaniff Esmail

## Elsewhere

Rachelle Buchbinder  
Gordon Waddell  
Brian Stephens  
Riikka Niemeläinen  
Jim Evans  
Calvin Haws  
Fahreen Rayani  
Richard Hu

# Acknowledgments

