

# Evaluating the Efficacy of Graded *In Vivo* Exposure for the Treatment of Fear in Patients with Chronic Back Pain: A Randomized Controlled Clinical Trial

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## Background

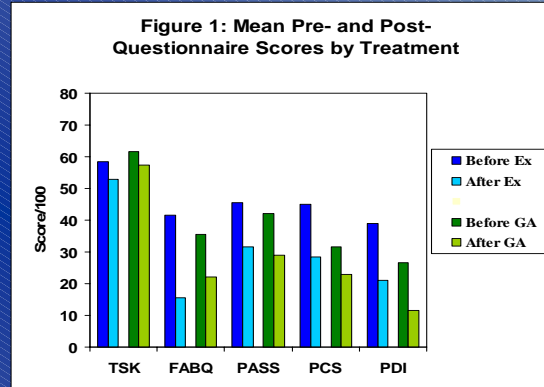
- Psychological treatments for chronic pain, particularly those based upon cognitive behavioural (CB) principles, have generally been shown to be efficacious.
- Recently, a treatment based upon the fear-avoidance model of chronic pain, which suggests that chronic pain can be relieved by exposing the individual to movements and tasks that have been avoided due to fear of pain/(re)injury, has been developed.
- This graded *in vivo* exposure treatment has been found to be efficacious in case studies.
- To date, however, there has been no randomized controlled assessment of the efficacy of graded *in vivo* exposure for the treatment of chronic low back pain.

## Objective

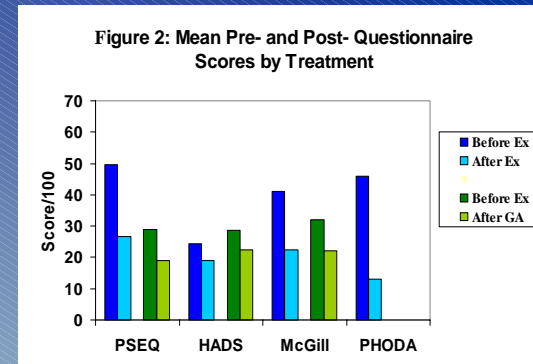
- To compare graded *in vivo* exposure to graded activity and a wait list control condition amongst 60 (20 per group) chronic low back pain patients.

## Methods

- Participants were randomly assigned to one of the 3 treatment conditions.
- All participants received a physiotherapy assessment prior to beginning treatment.
- Participants in all conditions completed questionnaires at baseline, 2 weeks, 4 weeks and 8 weeks.



Note. Ex = Graded *in vivo* Exposure; GA = Graded Activity; TSK = Tampa Scale for Kinesiophobia; FABQ = Fear Avoidance Questionnaire; PCS = Pain Catastrophising Scale; PASS = Pain Anxiety Symptom Scale



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## Results

- Preliminary analysis from 4 participants (two per treatment group) suggests that completion of graded *in vivo* exposure or graded activity treatment programs results in a decrease in measured fear-avoidance beliefs, pain-related anxiety, cognitions and behaviours, severity and symptoms of pain, and perceived level of disability. Pain-related self-esteem showed improvement.
- With the exception of the TSK, PASS, and HADS, the magnitude of improvement seems to be greater on all measures for individuals who were assigned to the graded *in vivo* exposure treatment group.
- Mean ratings on the PHODA by participants in the graded *in vivo* exposure treatment group showed a particularly robust decrease, suggesting that participant's anxiety for performing many daily activities was significantly reduced.

## Discussion

- These findings support the validity of the fear-avoidance model of chronic pain.
- These results also support prior case-study research which suggests that graded *in vivo* exposure is an effective treatment for individuals with chronic back pain.
- This data is preliminary. Additional data from participants who have completed the treatments needs to be gathered and analyzed.

## Acknowledgements

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