

PMSIG Research: Abstracts, Articles and Reviews

Every other month, the Pain Management Special Interest Group will be providing with some updates on new topics, new information and research related topics. Please feel free to submit a topic, research question to dana-dailey@uiowa.edu. If you would like to help in preparing the information, please let me know as well.

Thank you so much for all those who responded to the request for volunteers for the PMSIG Research Committee. A questionnaire should be coming shortly to all those interested.

May 2018 Topic: Pain and Self Efficacy

Osteoarthritis and Aquatic Exercise¹

Fibromyalgia and Rheumatoid Arthritis²

Osteoarthritis and Pain Catastrophizing³

Chronic Neck Pain and Alexander Technique⁴

Bibliography

1. Kars Fertelli Tp, Mollaoglu Mp, Sahin Op. Aquatic Exercise Program for Individuals With Osteoarthritis: Pain, Stiffness, Physical Function, Self-Efficacy. *Rehabilitation nursing : the official journal of the Association of Rehabilitation Nurses* 2018
2. Moyano S, Scolnik M, Vergara F, Garcia MV, Sabelli MR, Rosa JEp, Catoggio LJ, Soriano ERp. Evaluation of Learned Helplessness, Perceived Self-efficacy, and Functional Capacity in Patients With Fibromyalgia and Rheumatoid Arthritis. *Journal of clinical rheumatology : practical reports on rheumatic & musculoskeletal diseases*. 2018
3. Van Denburg ANp, Shelby RAp, Caldwell DSp, O'Sullivan MLp, Keefe FJp. Self-Efficacy for Pain Communication Moderates the Relation between Ambivalence over Emotional Expression and Pain Catastrophizing among Patients with Osteoarthritis. *The journal of pain : official journal of the American Pain Society*. 2018
4. Woodman Jp, Ballard Kp, Hewitt Cp, MacPherson Hp. Self-efficacy and self-care-related outcomes following Alexander Technique lessons for people with chronic neck pain in the ATLAS randomised, controlled trial. *European journal of integrative medicine*. 17:64-71, 2018

Aquatic Exercise Program for Individuals with Osteoarthritis: Pain, Stiffness, Physical Function, Self-Efficacy.

Kars Fertelli T, Mollaoglu M, Sahin O.

Abstract

PURPOSE:

This research was conducted to determine the effects of an aquatic exercise program on pain, stiffness, physical function, and self-efficacy in individuals with osteoarthritis.

DESIGN:

A randomized controlled trial.

METHODS:

Participants in the experimental group participated in the aquatic exercise program three times a week for 8 weeks; participants in the control group did not.

FINDINGS:

The mean scores of the experimental group on the pain, stiffness, and difficulty in carrying out physical functions subscales of the Western Ontario and McMaster Universities Osteoarthritis Index decreased significantly, whereas those of the control group decreased very little. The mean scores of the experimental group on the Arthritis Self-Efficacy Scale and the isokinetic muscle strength measurements increased, but those of the control group did not change in the final measurements. The difference between the groups was statistically significant.

CONCLUSIONS:

Through the study, it was determined that the aquatic exercise program decreased pain, stiffness, and difficulty in carrying out physical functions and increased self-efficacy and muscle strength of individuals with osteoarthritis.

CLINICAL RELEVANCE:

The aquatic exercise program can be used by nurses as a reference in the management of osteoarthritic patients' health status.

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Evaluation of Learned Helplessness, Perceived Self-efficacy, and Functional Capacity in Patients with Fibromyalgia and Rheumatoid Arthritis.

Moyano S, Scolnik M, Vergara F, García MV, Sabelli MR, Rosa JE, Catoggio LJ, Soriano ER.

Abstract

OBJECTIVES:

The aims of this study were to compare learned helplessness (LH) and perceived self-efficacy (SE) in patients with fibromyalgia (FM) and rheumatoid arthritis (RA) and to assess their correlation with functional disability, level of perceived pain, and fatigue.

METHODS:

This multicenter, cross-sectional study included consecutive patients (aged ≥ 18 years) with RA, according to the 2010 American College of Rheumatology/European League Against Rheumatism criteria, and FM, according to 2010 American College of Rheumatology criteria. Learned helplessness was measured by the Rheumatology Attitude Index, Spanish version; SE with the Arthritis Self-efficacy Scale, Spanish version; functional capacity with the Health Assessment Questionnaire (HAQ), Argentine version; depression with Center for Epidemiological Studies-Depression Scale 7-item version and perceived pain and fatigue by the visual analog scale. Disease activity was measured by the Clinical Disease Activity Index (CDAI) and disease impact with the Fibromyalgia Impact Questionnaire (FIQ).

RESULTS:

A total of 215 patients, 100 with FM and 115 with RA, were included. Mean age was 59 (SD, 14) years and 58 (SD, 13) years for FM and RA, patients respectively. Whereas LH and depression were significantly higher, SE was significantly lower in FM patients. We found a positive correlation between LH and HAQ, pain, depression, fatigue, FIQ, and CDAI in FM and RA patients. We observed a negative correlation between SE and HAQ, pain, depression, fatigue, FIQ (FM), and CDAI (RA) in both groups.

CONCLUSIONS:

Both LH and SE correlate significantly with functional capacity, perceived pain, disease activity, and disease impact in RA and FM patients. Learned helplessness was higher in patients with active disease or high disease impact, as opposed to those in remission or with low disease impact, and the reverse was true for SE. Patients with FM had significantly more LH, pain, fatigue, and depression and less SE compared with those with RA.

Self-Efficacy for Pain Communication Moderates the Relation between Ambivalence over Emotional Expression and Pain Catastrophizing among Patients with Osteoarthritis.

Van Denburg AN, Shelby RA, Caldwell DS, O'Sullivan ML, Keefe FJ.

Abstract

Pain catastrophizing (i.e., the tendency to focus on and magnify pain sensations and feel helpless in the face of pain) is one of the most important and consistent psychological predictors of the pain experience. The present study examined, in 60 patients with osteoarthritis pain who were married or partnered: 1) the degree to which ambivalence over emotional expression and negative network orientation were associated with pain catastrophizing and 2) whether self-efficacy for pain communication moderated these relations. Hierarchical multiple linear regression analyses revealed a significant main effect for the association between ambivalence over emotional expression and pain catastrophizing; as ambivalence over emotional expression increased, the degree of pain catastrophizing increased. In addition, the interaction between ambivalence over emotional expression and self-efficacy for pain communication was significant, such that as self-efficacy for pain communication increased, the association between ambivalence over emotional expression and pain catastrophizing became weaker. Negative network orientation was not significantly associated with pain catastrophizing. Findings suggest that higher levels of self-efficacy for pain communication may help weaken the effects of ambivalence over emotional expression on pain catastrophizing. Given these results, patients may benefit from interventions that target pain communication processes and emotion regulation.

PERSPECTIVE:

This article examines interpersonal processes involved in pain catastrophizing. This study has the potential to lead to better understanding of maladaptive pain coping strategies and possibly better prevention and treatment strategies.

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Self-efficacy and self-care-related outcomes following Alexander Technique lessons for people with chronic neck pain in the ATLAS randomised, controlled trial.

Woodman J, Ballard K, Hewitt C, MacPherson H.

Abstract

INTRODUCTION:

ATLAS was a pragmatic randomised (1:1:1 ratio), controlled trial recruiting patients with chronic neck pain (N = 517) and evaluating one-to-one Alexander Technique lessons, or acupuncture, each plus usual care, compared with usual care alone. The primary outcome (12-month Northwick Park Neck Pain Questionnaire [NPQ]) demonstrated significant and clinically meaningful reductions in neck pain and associated disability for both interventions compared with usual care alone. Here we describe pre-specified, self-efficacy and other self-care-related outcomes for the Alexander group compared with usual care.

METHODS:

Participants reported on 11 self-efficacy/self-care-related outcome measures at 6 and 12 months. Linear or logistic regression models evaluated changes in parameters and impact on NPQ. Alexander teachers reported on lesson content.

RESULTS:

Lesson content reflected standard UK practice. The Alexander group (n = 172) reported significantly greater improvements, compared with usual care alone (n = 172), in most of the self-efficacy/self-care measures (9/11 measures at 6 months, and 8/11 at 12 months), including the ability to reduce pain in daily life. At 6 months, 81% (106/131) of Alexander participants reported significant improvement in the way they lived and cared for themselves (versus 23% for usual care), increasing to 87% (117/135) at 12 months (usual care: 25%). NPQ scores at both 6 and 12 months were related to improvement in self-efficacy and ability to reduce pain during daily life.

CONCLUSIONS:

Alexander Technique lessons led to long-term improvements in the way participants lived their daily lives and managed their neck pain. Alexander lessons promote self-efficacy and self-care, with consequent reductions in chronic neck pain.

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