Treatment Approaches: Physical Therapy

WIP-0495 COMBINING EXERCISE WITH EDUCATION BASED ON TRANSFORMATIVE LEARNING PRINCIPLES IN FIBROMYALGIA PATIENTS: A CASE SERIES
C. Caçiro, R. Fernandes, E. Cruz, A. Valverde, S. Rodrigues Physiotherapy, Health School, Polytechnic Institute of Setúbal, Setúbal, Portugal

Objectives: Research has suggested that exercise is effective in addressing pain, fatigue and function in fibromyalgia. Education has also been recommended, however there is little information concerning the type of educational approach that should be adopted to address mal-adaptive cognitions that seem to impact pain and function. This study aims to describe the pragmatic use and effects of combining exercise with an educational approach based on the transformative learning theory in fibromyalgia patients.

Methods: A case series design was carried out on 11 fibromyalgia patients, referred to physiotherapy. The patients (screened for inclusion/exclusion criteria) underwent a 6-week (3 times weekly) standardised programme of exercise and education. The educational component (45–60 minutes) preceded 9 of the 24 exercise sessions of equal duration. Patients were assessed at baseline, 4 and 8 weeks later. Outcome measures included the Numeric Pain Scale, the Revised Fibromyalgia Impact Questionnaire, the Fatigue Severity Scale and the Patient Global Impression Scale.

Results: The 11 patients (females; 49.5 ± 9.9 years; ≥24 months of fibromyalgia) attended an average of 18.4 ± 3.4 (mode = 22) sessions. Of the 11 patients, 9 improved function, 7 decreased pain intensity, 7 decreased fatigue severity and 9 reported being “better” or “much better” in at least one of the outcomes (pain/fatigue/function).

Conclusion: These results support a combination of exercise with an educational approach based on the principles of transformative learning theory for fibromyalgia patients. This methodological approach limits cause-effect relations, reinforcing the need for further research.

WIP-0452 LOOKING FOR CHRONIC NECK PAIN RESPONDERS TO PHYSICAL THERAPY MULTIMODAL TREATMENT
S.T. Duarte1, E.B. Cruz2, R.N. Fernandes3, M.F. Carnide3
1Physiotherapy, Medicine and Rehabilitation Center of Alcoitão, Lisbon, 2Physiotherapy, School of Health Care – Polytechnic Institute of Setúbal, Setúbal, 3CIFER-LBMF, Faculty of Human Motricity – Technical University of Lisbon, Lisbon

Objectives: This study aimed to identify predictors of short-term functional recovery in chronic neck pain (CNP) patients undergoing a multimodal physical therapy (PT) treatment.

Methods: A prospective cohort study with 112 CNP patients referred to PT treatment. Patients were assessed at baseline and 7-weeks after starting a multimodal PT treatment. Sociodemographic and clinical characteristics at baseline were included as potential outcome predictors. Based on a previous study, functional recovery was defined as a change in the Neck Disability Index of ≥6 (minimal clinically important difference). Logistic regression (backward conditional) was used to find associations between predictors and functional recovery (p < 0.05). The multivariate model was submitted to a clusters analysis, highlighting the post-test probability of functional recovery after treatment.

Results: Of the 112 participants enrolled, 108 completed the follow-up (mean age: 51.76 ± 10.19). 58 patients reported functional recovery, and 50, treatment failure (pre-test probability: 54%). In the multivariate model, functional recovery was associated with high levels of disability at baseline (OR = 1.123; 95% CI 1.056–1.194) and pain duration for less than 12 months (OR = 2.704; 95% CI 1.138–6.424). For a positive likelihood ratio of 3.57, the probability of obtaining functional recovery increases from 54 to 81% in the presence of these two predictors at baseline.

Conclusion: CNP patients with a score higher than 19 on NDI-PT and with pain complaints for less than 12 months at baseline are more likely to benefit from a multimodal PT treatment to achieve functional recovery.

WIP-0273 SELF-RATING OF PHYSICAL CONDITION (QUESTIONNAIRE) COMPARED TO MOTOR ASSESSMENT IN PERSONS WITH CHRONIC PAIN TO PROVIDE OBJECTIVE EVIDENCE FOR DECONDITIONING
A. Pirlet, A. Ljutow
Swiss Paraplegic-Centre, Centre for Pain Medicine, Nottwil, Switzerland

Objectives: Chronic musculoskeletal pain is presented in a large percentage of persons with chronic pain. In daily routine there are no standardised diagnostic tools in use to address the state of physical condition or fitness of these pain patients. As we know, fear avoidance behaviour and deconditioning are connected in a vicious circle. Deconditioning is a clinical reality and plays a major role as an obstacle to successful pain reduction. It is in fact astonishing, that this factor is seldom evaluated in a standardised way. The purpose is to provide evidence for deconditioning in persons with chronic pain.

Methods: We introduced a questionnaire for self-rating of physical fitness (FFB-Mot) into our daily routine. Patients with signs of deconditioning in clinical assessment or in the questionnaire were referred to physiotherapist or sports therapist, who performed a standardised motor assessment (Rickli 2002). Results: The results of self-rating and clinical assessment of physical condition are presented in comparison. The correlation between those data and pain parameters as chronicity of pain or impairment due to pain are analysed. Data collection will be completed in march 2014.

Conclusion: The value of a self-rating questionnaire to screen persons with chronic pain for deconditioning as a risk factor for pain persistence is evaluated. Furthermore the importance of standardised tools, either questionnaires or clinical exams, is emphasised.

WIP-0454 EFFECTIVENESS OF PAIN NEUROPHYSIOLOGY EDUCATION AND AQUATIC EXERCISE PROGRAM COMPARED TO AQUATIC EXERCISE PROGRAM ALONE FOR INDIVIDUALS WITH CHRONIC LOW BACK PAIN
D. Pires1, C. Caçiro2, E.B. Cruz2
1Physiotherapy, Escola Superior de Saúde Dr. Lopes Dias – Instituto Politécnico de Castelo Branco, Castelo Branco, 2Physiotherapy, Escola Superior de Saúde – Instituto Politécnico de Setúbal, Setúbal, Portugal

Objectives: The aim of this single-blinded randomized controlled trial was to investigate the effects of a 6-week program of aquatic exercise and two sessions of pain neurophysiology education (experimental group) compared to aquatic exercise program alone (control group) in individuals with Chronic Low Back Pain (CLBP).

Methods: Sixty two individuals with CLBP were randomly distributed in the experimental group (n = 30) and in the control group (n = 32). Outcome measures included pain intensity (Visual Analogue Scale), functional disability ( Québec Back Pain Disability Scale) and fear of movement (Tampa Scale of Kinesiophobia). Participants were assessed before the intervention, three weeks after the start of the aquatic exercise program, at the end of the intervention and 3 months follow-up.

Results: Significant improvements were found at the end of the intervention in both groups in what intensity of pain and
Treatment Approaches: Physical Therapy

WIP-0495 COMBINING EXERCISE WITH EDUCATION BASED ON TRANSFORMATIVE LEARNING PRINCIPLES IN FIBROMYALGIA PATIENTS: A CASE SERIES
C. Caeiro, R. Fernandes, E. Cruz, A. Valverde, S. Rodrigues
Physiotherapy, Health School, Polytechnic Institute of Setubal, Setubal, Portugal

Objectives: Research has suggested that exercise is effective in addressing pain, fatigue and function in fibromyalgia. Education has also been recommended, however there is little information concerning the type of educational approach that should be adopted to address mal-adaptive cognitions that seem to impact pain and function. This study aims to describe the pragmatic use and effects of combining exercise with an educational approach based on the transformative learning theory in fibromyalgia patients.

Methods: A case series design was carried out on 11 fibromyalgia patients, referred to physiotherapy. The patients (screened for inclusion/exclusion criteria) underwent an 8-week (3 times weekly) standardised programme of exercise and education. The educational component (45–60 minutes) preceded 9 of the 24 exercise sessions of equal duration. Patients were assessed at baseline, 4 and 8 weeks later. Outcome measures included the Numeric Pain Scale, the Revised Fibromyalgia Impact Questionnaire, the Fatigue Severity Scale and the Patient Global Impression Scale.

Results: The 11 patients (females; 49.5 ± 9.9 years; ≥24 months of fibromyalgia) attended an average of 18.4 ± 3.4 (mode = 22) sessions. Of the 11 patients, 9 improved function, 7 decreased pain intensity, 7 decreased fatigue severity and 9 reported being “better” or “much better” in at least one of the outcomes (pain/fatigue/function).

Conclusion: These results support a combination of exercise with an educational approach based on the principles of transformative learning theory for fibromyalgia patients. This methodological approach limits cause-effect relations, reinforcing the need for further research.

WIP-0452 LOOKING FOR CHRONIC NECK PAIN RESPONDERS TO PHYSICAL THERAPY MULTIMODAL TREATMENT
S.T. Duarte¹, E.B. Cruz², R.N. Fernandes³, M.F. Carnide³
¹Physiotherapy, Medicine and Rehabilitation Center of Alcoitão, Lisbon; ²Physiotherapy, School of Health Care – Polytechnic Institute of Setubal, Setubal; ³CIFER-LBMF, Faculty of Human Morality – Technical University of Lisbon, Lisbon

Objectives: This study aimed to identify predictors of short-term functional recovery in chronic neck pain (CNP) patients undergoing a multimodal physical therapy (PT) treatment.

Methods: A prospective cohort study with 112 CNP patients referred to PT treatment. Patients were assessed at baseline and 7-weeks after starting a multimodal PT treatment. Sociodemographic and clinical characteristics at baseline were included as potential outcome predictors. Based on a previous study, functional recovery was defined as a change in the Neck Disability Index of ≥2 (minimal clinically important difference). Logistic regression (backward conditional) was used to find associations between predictors and functional recovery (p < 0.05). The multivariate model was submitted to a clusters analysis, highlighting the post-test probability of functional recovery after treatment.

Results: Of the 112 participants enrolled, 108 completed the follow-up (mean age: 51.76 ± 10.19). 58 patients reported functional recovery, and 50, treatment failure (pre-test probability: 54%). In the multivariate model, functional recovery was associated with high levels of disability at baseline (OR = 1.123; 95% CI 1.056–1.194) and pain duration for less than 12 months (OR = 2.704; 95% CI 1.138–6.424). For a positive likelihood ratio of 3.57, the probability of obtaining functional recovery increases from 54 to 81% in the presence of these two predictors at baseline.

Conclusion: CNP patients with a score higher than 19 on NDI-PT and with pain complaints for less than 12 months at baseline are more likely to benefit from a multimodal PT treatment to achieve functional recovery.

WIP-0273 SELF-RATING OF PHYSICAL CONDITION (QUESTIONNAIRE) COMPARED TO MOTOR ASSESSMENT IN PERSONS WITH CHRONIC PAIN TO PROVIDE OBVIOUS EVIDENCE FOR DECONDITIONING
A. Pirolt, A. Ljutow
Swiss Paraplegic-Centre, Centre for Pain Medicine, Nottwil, Switzerland

Objectives: Chronic musculoskeletal pain is presented in a large percentage of persons with chronic pain. In daily routine there are no standardised diagnostic tools in use to address the state of physical condition or fitness of these pain patients. As we know, fear avoidance behaviour and deconditioning are connected in a vicious circle. Deconditioning is a clinical reality and plays a major role as an obstacle to successful pain reduction. It is in fact astonishing, that this factor is seldom evaluated in a standardised way. The purpose is to provide evidence for deconditioning in persons with chronic pain.

Methods: We introduced a questionnaire for self-rating of physical fitness (FFB-Mot) into our daily routine. Patients with signs of deconditioning in clinical assessment or in the questionnaire were referred to physiotherapist or sports therapist, who performed a standardised motor assessment (Rickli 2002).

Results: The results of self-rating and clinical assessment of physical condition are presented in comparison. The correlation between these data and pain parameters as chronicity of pain or impairment due to pain is analysed. Data collection will be completed in march 2014.

Conclusion: The value of a self-rating questionnaire to screen persons with chronic pain for deconditioning as a risk factor for pain persistence is evaluated. Furthermore the importance of standardised tools, either questionnaires or clinical exams, is emphasised.

WIP-0454 EFFECTIVENESS OF PAIN NEUROPHYSIOLOGY EDUCATION AND AQUATIC EXERCISE PROGRAM COMPARED TO AQUATIC EXERCISE PROGRAM ALONE FOR INDIVIDUALS WITH CHRONIC LOW BACK PAIN
D. Pires¹, C. Caeiro², E.B. Cruz²
¹Physiotherapy, Escola Superior de Saúde Dr. Lopes Dias – Instituto Politécnico de Castelo Branco, Castelo Branco, ²Physiotherapy, Escola Superior de Saúde – Instituto Politécnico de Setúbal, Setúbal, Portugal

Objectives: The aim of this single-blinded randomized controlled trial was to investigate the effects of a 6-week program of aquatic exercise and two sessions of pain neurophysiology education (experimental group) compared to aquatic exercise program alone (control group) in individuals with Chronic Low Back Pain (CLBP).

Methods: Sixty two individuals with CLBP were randomly distributed in the experimental group (n = 30) and in the control group (n = 32). Outcome measures included pain intensity (Visual Analogue Scale), functional disability (Quebec Back Pain Disability Scale) and fear of movement (Tampa Scale of Kinesiophobia). Participants were assessed before the intervention, three weeks after the start of the aquatic exercise program, at the end of the intervention and 3 months follow-up.

Results: Significant improvements were found at the end of the intervention in both groups in what intensity of pain and