OP0076

ISOTEMPORAL SUBSTITUTION OF SEDENTARY TIME WITH PHYSICAL ACTIVITY IN FIBROMYALGIA: ASSOCIATION WITH QUALITY OF LIFE AND DISEASE IMPACT. THE AL-ANDALUS PROJECT

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Background: There is an awareness of detrimental health effects of sedentary time (ST) in fibromyalgia.^{1,2} However, data are limited on how replacing ST with physical activities of different intensities may be related to the typically reduced quality of life of these patients. Increasing time in one behaviour requires decreasing time in another but classic regression models are not able to directly target these substitutions. Hence, the isothermal substitution paradigm (a novel model to study the estimated effects of one activity for another³), might allow us to better understand the relationship between ST, physical activity and perceived health status in fibromyalgia.

Objectives: To investigate the association of replacing ST with light physical activity (LPA) or moderate-to-vigorous physical activity (MVPA) with quality of life and disease impact in women with fibromyalgia.

Methods: In total, 407 women with fibromyalgia (51.4±7.6 years old) were included in this cross-sectional study. The time spent in ST and PA intensity levels was objectively measured with triaxial accelerometry. Quality of life and disease impact were assessed using the 36-item *Short-Form Health Survey* (SF-36) and the *Revised Fibromyalgia Impact Questionnaire* (FIQR), respectively. An isothermal substitution approach was used to estimate the associations between the substitution of 30 min of ST with an equivalent time of LPA or MVPA and the outcomes. Analyses were controlled for age, current occupational status, fat percentage, and antidepressant consumption.

Results: Substituting 30 min of ST with LPA in the isothermal model was associated with better bodily pain ($B=0.55$), vitality ($B=0.74$) and social functioning ($B=1.45$) of SF-36 and better scores at all of the domains of FIQR (function, overall impact, symptoms severity, and total impact) (B ranging from -0.95 to -0.27), all $p<0.05$. When 30 min of ST were replaced with MVPA, significantly better physical role ($B=2.30$) and social functioning ($B=4.11$) of the SF-36 and function of FIQR ($B=-0.73$) were observed (all $p<0.05$).

Conclusions: Allocating time of sedentary behaviour to either LPA or MVPA was generally associated with better quality of life and lower disease impact in women with fibromyalgia. The isothermal models suggest that LPA may be beneficial for a larger number of domains, while MVPA may establish greater changes in the outcomes. These results reinforce the importance of moving towards less sedentary lifestyle in fibromyalgia, although these findings should be investigated in longitudinal, experimental research.

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Acknowledgements: This study was supported by the Spanish Ministries of Economy and Competitiveness (I+D+i DEP2010–15639; I+D+i DEP2013–40908 R, BES-2011–047133; BES-2014–067612) and the Spanish Ministry of Education (FPU14/02518; FPU15/00002)

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3452

OP0077

EFFECTIVENESS OF 8-WEEKS SUPERVISED AND NON-SUPERVISED AEROBIC EXERCISE PROGRAMS ON CLINIC FINDINGS, FUNCTIONAL STATUS AND QUALITY OF LIFE IN THE PATIENTS WITH FIBROMYALGIA SYNDROME

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Background: Fibromyalgia syndrome, aerobic exercise.

Objectives: This study was planned to evaluate the effectiveness of 8 weeks supervised and non-supervised aerobic exercise programs on clinic findings, functional status and quality of life in the patients with fibromyalgia syndrome.

Methods: A total of 120 patients who received the diagnosis of fibromyalgia syndrome according to ^{ACR 2010} Fibromyalgia classification criteria were enrolled into the study. Patients were randomised into three groups; Supervised aerobic exercise group (Group 1, 40 subjects), non-supervised aerobic exercise group (Group 2, 40 subjects), and control group (Group 3, 40 subjects). Fatigue, depression,

functional status, physical function, and quality of life of patients were evaluated before and after the treatment. Visual Analogue Scale (VAS) was used to assess the fatigue level. The level of depression was evaluated by Zung Depression Scale (ZDS). The evaluation of functional status was performed using Fibromyalgia Impact Questionnaire (FIQ). The quality of life of patients was investigated by Nottingham Health Profile (NHP). 6-metre walking distance test was used for the assessment of the physical function.

Results: After the exercise program, it was observed that there was a statistically significant improvement in both exercise groups for all evaluated parameters (fatigue, depression, functional status, physical function and quality of life), compared to the baseline ($p<0.05$). When compared with control group, it was found that the improvement in both groups was statistically significant better than control group ($p<0.05$). The improvement in fatigue, depression, functional status, physical function, and the Physical mobility subgroup of the quality of life was found to be better in supervised exercise group compared to the non-supervised home-based exercise group ($p<0.05$). As for the patients in the control group, it was observed that there was no improvement in any of the evaluated parameters.

Conclusions: In this study it was demonstrated that both supervised and non-supervised aerobic exercise programs have positive effects on clinic findings, functional status and quality of life of patients with fibromyalgia. However, further studies with a larger sample size and with a longer follow-up period are needed to support the findings of our study about the positive effects of supervised and non-supervised aerobic exercises.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4456

OP0078

IS THE EFFICACY OF PHYSICAL THERAPY RELATED TO THE PAIN IN THE PATIENT'S MIND?

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Background: The degree of improvement in functionality and pain after physical therapy in the patients with knee osteoarthritis (OA) may be due to various peripheral factors and used modalities. Additionally, in some patients, modifiable psychological factors such as pain catastrophizing and depression may influence the therapy outcome.¹

Objectives: The aim of this study was to investigate the impact of pain catastrophizing and depression on pain and functionality in the patients with knee OA who were treated with physical therapy.

Methods: The prospective cohort study participants were 89 patients with knee OA who underwent 10 sessions of physical therapy consist of hot-pack, transcutaneous electrical nerve stimulation (TENS), and ultrasound (US). Socio-demographic and clinical data were initially recorded. At baseline, pain catastrophizing and depression were measured with the standardised questionnaires including Pain Catastrophizing Scale (PCS) and Beck Depression Inventory-II (BDI-II). The Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) and the visual analogue scale (VAS) were performed at baseline, at the end of therapy and at first month after therapy.

Results: The patients' mean age was 60.38 (0.97), 82% were women, and 58.4% were not working. At baseline, the mean VAS and WOMAC scores were 7.39 (1.07) and 43.03 (19.47), respectively. 47.20% of the patients had clinically proper catastrophizing. The baseline demographic and clinical characteristics, except BDI-II score, VAS, and WOMAC were not different among the low catastrophizing and high catastrophizing groups (table 1). The patients who had high