6MWT distance and IPAQ score of the group with SSc were significantly lower than the healthy group ($p<0.05$).

Conclusion: This study demonstrates that women with SSc have increased arterial stiffness, decreased functional exercise capacity and physical activity. Exercise training is an important part of the comprehensive care of people with SSc. People with SSc should be included in an exercise training program to reduce arterial stiffness, increase exercise capacity and physical activity.

REFERENCES:

- [1] Cypiene A, Lauzevicius A, Venalis A, Dadoniene J, Ryliskyte L, Petrulioniene Z, Kovaite M, Gintautas J. The impact of systemic sclerosis on arterial wall stiffness parameters and endothelial function. *Clin Rheumatol*. 2008 Dec;27(12):1517-22.
- [2] Laufs U, Wassmann S, Czech T, Münzel T, Eisenhauer M, Böhm M, Nickenig G. Physical inactivity increases oxidative stress, endothelial dysfunction, and atherosclerosis. *Arterioscler Thromb Vasc Biol*. 2005 Apr;25(4):809-14.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.6057

THU0726B-HPR THE FACTORS AFFECTING HANDWRITING SPEED IN PATIENTS WHO HAVE AN AFFECTED WRIST JOINT WITH OLIGOARTICULAR JUVENILE IDIOPATHIC ARTHRITIS

Nilay Arman¹, Ela Tarakci², Ozgur Kasapcopur³. ¹Istanbul University-Cerrahpasa, Faculty of Health Science Division of Physiotherapy and Rehabilitation, Department of Physiotherapy and Rehabilitation, Istanbul, Turkey; ²Istanbul University-Cerrahpasa, Faculty of Health Science Division of Physiotherapy and Rehabilitation, Department of Neurological Physiotherapy and Rehabilitation, Istanbul, Turkey; ³Istanbul University-Cerrahpasa, Cerrahpasa Medical School, Department of Pediatric Rheumatology, Istanbul, Turkey

Background: Juvenile idiopathic arthritis (JIA) encompasses a complex group of disorders with arthritis. Patients with JIA may experience significantly decreased life skills owing to muscular weakness, joint pain, contracture, and reduced mobility (1). Poor handwriting speed is an example of an affected life skill that has been observed by educators and clinicians for patients with chronic disease (2).

Objectives: The aim of this study was to investigate the factors affecting handwriting speed in patients who have an affected wrist joint with oligoarticular JIA.

Methods: 42 patients (aged 6–18 years) who have an affected wrist joint with oligoarticular JIA were included in this study. Muscular strength was estimated at maximal isometric force for the muscles of the upper extremities by using a portable handheld dynamometer. Grip and pinch strengths were evaluated by a dynamometer. Handwriting speed was evaluated with a sentence writing duration of 24 letters. All tests were performed thrice and the mean values of all were recorded. The correlation between all parameters was analyzed by the Pearson Correlation Test. Also, relations between the factors affecting handwriting speed in JIA were assessed by multiple linear regression analysis.

Results: The mean age was 12.71 ± 3.35 and the mean disease duration was 6.52 ± 3.81 years. The mean of handwriting speed was 20.53 ± 10.39 seconds. Significant relationships were found between handwriting speed and muscular strengths of shoulder and elbow ($p<0.05$). Also, significant relationships were found between handwriting speed and lateral ($r=-0.352$, $p=0.022$), tip ($r=-0.309$, $p=0.047$) and triple ($r=-0.375$, $p=0.015$) pinch strengths. According to linear regression analysis, handwriting speed was affected by only muscle strength of elbow pronation ($\beta=-0.515$, $p=0.037$).

Conclusion: Handwriting is a complex functional activity simultaneously involving motor skills, cognitive and visual perceptual processing in all chronic disease. In the current study, it was found that handwriting speed was related with shoulder and elbow muscle strengths and pinch strengths in patients with JIA. Although patients with JIA had only affected wrist joint, only muscle strength of elbow pronation was the only primary predictor of handwriting speed. We suggested that handwriting speed should be considered in patients with juvenile idiopathic arthritis. So, accurate assessment of handwriting speed is essential for developing appropriate intervention programs and evaluating performance and outcomes in patients with JIA. Besides, not only affected joint, but also all upper extremity joints should be assessed multidimensionally.

*The presenter author was supported to participate to EULAR 2019 by Turkish Academy of Sciences as a winner of the Young Scientists Award Programme (GEBIP) 2018.

REFERENCES:

- [1] Gowdie, P. J., & Tse, S. M. (2012). Juvenile idiopathic arthritis. *Pediatric Clinics of North America*, 59(2), 301-327.
- [2] Van Drempt, N., McCluskey, A., & Lannin, N. A. (2011). A review of factors that influence adult handwriting performance. *Australian occupational therapy journal*, 58(5), 321-328.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.5611

THU0727-HPR FOLLOW-UP CARE AND SELF-MANAGEMENT ACTIVITIES AFTER SPECIALIZED REHABILITATION FOR PATIENTS WITH RHEUMATIC AND MUSCULOSKELETAL DISEASES

Helene Lindtvedt Valaas, Mari Klokkeud, Ingvild Kjekken. *National Advisory Unit on Rehabilitation in Rheumatology, Oslo, Norway*

Background: Patients with rheumatic and musculoskeletal diseases (RMDs) benefit from rehabilitation in specialized care, but the effect seems to decline over time. Implementation of healthy self-management strategies and support over an extended period may prolong the effect. Rehabilitation trajectories with planned follow-up interventions and support in primary health care are therefore recommended. Still, evidence is not clear concerning what constitutes an optimal design of supportive follow-up interventions, and to which degree such follow-up care are planned and delivered.

Objectives: To describe current follow-up care practice and self-management after specialized rehabilitation for patients with RMDs.

Methods: This is a multicentre cohort study, including 523 participants with RMDs who received rehabilitation in specialized care in Norway. Participants completed a core set of outcome measures for rehabilitation in musculoskeletal diseases covering nine aspects of health and function in a web based data collection system [1]. At rehabilitation discharge, they additionally reported needed and planned follow-up care (FU-care) from listed professions and services in primary health care and plans for self-management activities (SMA). Received FU-care and adherence to SMA were reported at 4, 8 and 12 months follow-up. A multiple logistic regression analysis was performed to explore predictors for acceptable adherence to SMA.

Results: A total of 436 participants completed all assessments at discharge, of which 429 (98%) reported a need for FU-care. A need for FU-care by primary physician was most frequently registered, followed by physiotherapist and the Norwegian Labour and Welfare Service. However, only 239 (56%) reported that FU-care was planned at discharge. Of those reporting a need for FU-care, 201 (47%) participants reported receiving such care during the follow-up year, and these participants more often had a specific follow-up plan at discharge compared to those who did not receive the FU-care they reported needing ($p=0.06$).

Hundred and sixty-four (38%) participants were adhering to their SMA throughout the follow-up year. Higher age ($OR=1.04$, [CI 95% 1.02, 1.06], $p<0.001$), lower degree of depression and anxiety ($OR=0.73$, [CI 95% 0.58, 0.94], $p=0.01$), and performing physical activity on a regular basis ($OR=3.35$, [CI 95% 2.08, 5.39], $p<0.001$) at baseline were predictors for acceptable adherence. Participants with acceptable adherence reported more often a need for FU-care ($p<0.001$), and had more frequently received the FU-care they needed ($p<0.001$) than those without acceptable adherence.

Conclusion: Participants with plans were more likely to receive the FU-care they reported needing, indicating that discussing and planning follow-up should be an integral part of rehabilitation in specialized health care. The results further indicate that having structure and routines in one's daily life enhance adherence to SMA, and that patients with anxiety and depression and a sedentary life style may need more support over a longer period to be able to implement behavioural changes for healthy self-management.

REFERENCES:

- [1] Klokkeud, M., et al., *Developing and testing a consensus-based core set of outcome measures for rehabilitation in musculoskeletal diseases*. *Scandinavian Journal of Rheumatology*, 2017: p. 1-10.

Acknowledgement: The authors want to inform that members in the Rehabilitation Trajectories Research group are co-authors of this abstract. Their names are listed in the following link: http://diakonhjemmetsykehus.no/#/diakon/forside/Hel-sepersonell/nasjonal-kompetansetjeneste-for-revmatologisk-rehabilitering-nkr/r/pagaende-prosjekter-nkr/_5479/5495