evidence for short-term improvement of pain, physical function and stiffness in patients with knee AO. More high quality RCTs are urgently needed to confirm these results.

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FRI0725-HPR A TAILOR-MADE EXERCISE PROGRAM DESIGNED FOR IMPROVING CARDIORESPIRATORY FITNESS IN PATIENTS WITH RHEUMATOID ARTHRITIS AND INCREASED CARDIOVASCULAR RISK

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Background: Rheumatoid arthritis (RA) is associated with low levels of cardiorespiratory fitness (CRF), especially in patients with RA and cardiovascular (CV) risk. The optimization of management of CV risk in patients with RA is an important aim in the treatment, including also exercise, particularly in patients with RA with a high CV risk, defined as a 10-year CV risk of 20% or higher. However, exercise to improve CRF in these patients is challenging since professionals should take multiple factors into account, such as comorbid conditions related to CV risk. It is unknown which intensity of exercise improves CRF and is safe for patients with RA and CV risk.

Objectives: To design a tailor-made exercise therapy program to improve CRF for RA patients with CV risk >20%.

Methods: To design a tailor-made exercise therapy program, patients and experts' opinions were collected, and a systematic literature search on exercise programs in RA and CV risk factors was performed. The ACSM guidelines were also used to gain insight into frequency, intensity, type and progression of the exercises. In addition, a cardiology rehabilitation team and an arthritis rehabilitation team were consulted during the development of the program. The designed program was partly based on cardiac rehabilitation protocols and especially the way the training load was increased, taking into account the joint load. Finally, the developed exercise program was discussed and approved by an expert panel of patients, rheumatologists, a cardiologist, physical therapists and researchers in rheumatology. The designed program was tested on 10 patients in which the feasibility and safety was tested.

Results: Intensity of exercises was based on the results from the baseline exercise tests showing that on average the VO₂max was under the standard. The maximum Heart Rate (HR max), which was on average (mean, SD) 140.6 (10.9) beats per minute, was used to determine the individually performed intensity of exercises. The duration of the program was 12 weeks. Patients had two training sessions per week with a duration of one hour each. To guarantee safety, the training load was progressively increased, and the tolerability was assessed at every training. Exercises consisted of aerobic and muscle strength exercises. The first four weeks patients trained 30 minutes (which were spread over three exercises) on 65% of the HR max which was gradually increased until 75% of the HR max in the sixth week. From the fifth week three

exercises to improve muscle strength were added to the program. From the seventh week interval training started, with a peak of 85% of the HR max and a rest of 65% of the HR max. The program also included motivational interviewing because one of the main reasons for a high CV risk is the inactivity during daily life. All patients were motivated to perform 30 minutes of moderate exercises every day at home.

Conclusion: A tailor-made exercise program to improve cardiorespiratory fitness in patients with RA and CV risk is developed, based on the opinion and experience of patients and health professionals and supported by a literature review and guidelines. A progressively increase in intensity of the exercise program, based on the individual maximum HR, is tolerable and safe and might increase cardiorespiratory fitness in patients with RA and CV risk.

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FRI0726-HPR DOES ART THERAPY MAKE A DIFFERENCE IN THE MANAGEMENT OF CHILDREN AND YOUNG PEOPLE WITH RHEUMATIC DISEASES: A MULTI-SITE SERVICE REVIEW TO EXPLORE THE IMPACT OF ART THERAPY IN TWO TERTIARY PAEDIATRIC RHEUMATOLOGY SERVICES IN SCOTLAND

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Background: Art therapy interventions in various medical settings are known to contribute to the mental health and wellbeing of patients. In paediatric rheumatology there is a well documented unmet need for psychological support for children and families coping with chronic disease and its treatment. The role that art therapy could have in this provision is unknown and there is no evidence-based research to help understand its potential contribution. The Teapot Trust is a Scottish charity working with paediatric rheumatology services offering art therapy to children and young people with rheumatic diseases.

Objectives: This project aimed to evaluate the service provided by art therapists in two tertiary paediatric rheumatology units in Scotland. The objective was to better understand which patients were referred for art therapy; why they were referred; levels of engagement and acceptability of therapy and benefit resulting in improved outcome.

Methods: A retrospective review was conducted of referrals received in the period 2012-2018 to art therapy from paediatric rheumatology services. A mixed method approach was used for gathering quantitative, secondary and qualitative data. Quantitative data was collected by collating numerical and demographic information from referral forms; art therapist service databases; and patient medical records. Secondary and qualitative data has been gathered from pre-existing service information; the use of outcome measurement tools; end of therapy evaluations; end of therapy reports and patient feedback forms.

Results: The demographics of children seen were as expected in a paediatric rheumatology service with the majority being females with juvenile idiopathic arthritis and on treatment with methotrexate. Peak age of referral was between 7 and 12 years. The majority of referrals were for help with coping either with their diagnosis or the emotional impact. Patient reported outcomes show significant improvements for patients in their social and emotional wellbeing. This review highlighted the limitations

of art therapists using a variety of validated and non-validated outcome measures making it difficult to objectively evaluate outcomes.

Data	Service	Edinburgh	Glasgow	Combined
Total referrals	34*	65**	34% Edinburgh / 66% Glasgow	
Age bands*		0-6: 12%, 7-12: 50%, 13-18: 38%	0-6: 6%, 7-12: 75%, 13-18: 19%	0-6: 8%, 7-12: 67%, 13-18: 25%
Gender*		M: 15%, F: 85%	M: 17%, F: 83%	M: 16%, F: 84%
Reason for referral**		Coping with treatment: 16% Coping with diagnosis: 17% Coping with pain: 5% Coping with emotional impact: 62%	Coping with treatment: 22% Coping with diagnosis: 10% Coping with pain: 7% Coping with emotional impact: 61%	Coping with treatment: 19% Coping with diagnosis: 13% Coping with pain: 6% Coping with emotional impact: 62%
Diagnosis**		JIA: 50%, Other: 50%	JIA: 50%, Other: 50%	JIA: 50%, Other: 50%
Medication**		Methotrexate: 82% Other: 18%	Methotrexate: 82%, Other: 18%	Methotrexate: 82%, Other: 18%
Patient uptake**		88%	62%	75%
CAN/DNA**		12%	38%	25%
Sessions offered**		Average 20	Average 8 sessions	Average 14 sessions
Patients per week**		Average 8	Average 4	Average 10 patients per week
Waiting times**		1-2 weeks	8-12 weeks	Average 8 weeks waiting times
Clinical hours**		56%	56%	56%
Non-clinical hours**		44%	44%	44%
Outcome measures used*		PEDS QL: 60%, Other: 40%	PEDS QL: 60% Other: 40%	PEDS QL: 60% Other: 40%
Patient reported outcomes**		Increased confidence 34% Feeling calmer/less anxious 18% Better able to share feelings 33% Experience of fun in hospital 15%	Increased confidence 33% Feeling calmer/less anxious 17% Better able to share feelings 33% Experience of fun in hospital 17%	Increased confidence 34% Feeling calmer/less anxious 17% Better able to share feelings 33% Experience of fun in hospital 16%

Conclusion: This retrospective multi-site service review demonstrated that art therapy was well used by clinicians as an appropriate psychological support for children and young people with rheumatic diseases. Engagement with the service was good and feedback positive. The review highlighted the challenge of objectively assessing outcomes, with the need to use validated and standardised assessment tools to collect this systematically going forward. A standardised service evaluation framework will be developed to facilitate future service reviews and is hoped that this represents a first step in developing evidence-based research to investigate the impact and benefit of art therapy in supporting children and young people in paediatric rheumatology.

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HPR Patients' perspectives, functioning and health (descriptive: qualitative or quantitative)

FRI0726B-HPR INVESTIGATION OF PHYSICAL ACTIVITY LEVELS OF PATIENTS WITH BEHCET'S DISEASE

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Background: Behcet's disease (BD), which is followed by a chronic course with attacks, is a significant cause of morbidity and mortality due to skin and mucosal lesions, joint involvement and eye involvement which can cause vision loss. It disrupts the physical and mental health of the individual as well as the disability of the physical functions and can affect the quality of life negatively (1, 2). There is strong evidence for the benefits of Physical activity (PA) on improvements on disease activity, activities and participation; however, people with rheumatic and musculoskeletal diseases (RMDs) are in general less active compared with healthy controls (3-5).

Objectives: The aim of the study was to evaluate PA in patients with BD and also to compare status of PA with healthy controls.

Methods: 67 patients (female=49, male=18) with BD and 66 healthy peers (female=43, male=23) were enrolled in the study. The subjects were recruited in a rheumatology clinic. They were diagnosed with BD by a rheumatologist based on the clinical diagnostic criteria. PA was evaluated with International Physical Activity Questionnaire-Short Form (IPAQ-SF) in all participants. Metabolic Equivalent (MET) values were calculated due to IPAQ-SF. In addition, the pain and fatigue status of patients with BD was asked.

Results: The mean age of the patients was 42.95±10.60 years. The mean disease duration was 14.14±9.13 years. The means of physical activity MET scores were 699.74±508.09 and 2006.75±1162.16 in patients with BD and healthy peers, respectively. It was found that the means of PA MET scores in BD was significantly decreased comparing with

healthy peers (p<0.001). While 53.7% of patients with BD had low levels of PA and 46.3% had moderate levels of PA, 9.1% of healthy subjects had low level of PA, 47% of them had moderate levels of PA and 43.9% high levels of PA (p<0.001). 86.6% of patients with BD reported pain, 73.1% of them also reported fatigue.

Conclusion: This study is the first study to evaluate PA in patients with BD. The level of PA was significantly lower in patients with BD compared to their healthy peers. Decreased PA may be associated with pain and fatigue frequently seen in patients with BD. In future studies, it is recommended to investigate the factors affecting PA in patients with BD.

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HPR PATIENTS' PERSPECTIVES, FUNCTIONING AND HEALTH (DESCRIPTIVE: QUALITATIVE OR QUANTITATIVE)

FRI0727-HPR PREDICTORS OF FUNCTIONAL CAPACITY AT 24 MONTHS FOLLOW-UP IN CHILDREN WITH JUVENILE IDIOPATHIC ARTHRITIS

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Background: Juvenile idiopathic arthritis (JIA) is the most common rheumatic disease in childhood and it causes short and long-term disability. Periodic assessment of functional capacity is important to determine the presence or absence of physical disability.

Objectives: To identify predictive factors of absence of functional disability after 24 months follow-up in a cohort of children with JIA treated at a tertiary referral hospital.

Methods: Longitudinal, retrospective, analytical, and observational study. Patients who met the following criteria were included in the study between 2013 and 2016: 1 to 16 years old, diagnosis of JIA according to the International League of Associations for Rheumatology (ILAR); recently initiated (3 months) care at our clinic, complete C-HAQ (Childhood Health Assessment Questionnaire) records throughout the follow-up period. Patients were treated according to current guidelines for pharmacological and physical therapy. Functional capacity was assessed according to the C-HAQ every 3 months. For the analysis, the C-HAQ scores were divided into 3 categories: 0 - 0.49 (absence of disability), 0.5 - 1.5 (mild to moderate disability), and 1.51 - 3 (severe disability). Univariate comparisons were made to determine the relationship between different variables with the dependent variable "absence of functional disability at 24 months of follow-up". Independent variables included: disease activity, functional capacity, and treatment-related outcome measures. Those with p values <0.05 were included in a multiple logistic regression analysis. The model was adjusted for basal functional capacity and inflammatory activity at 24 months. Items with a p value <0.05 were considered significant. Adjusted odds ratios (adjOR) and 95% confidence intervals (95% CI) are reported as a measure of association. The precision of the model was analyzed through the Area under the Curve (AUC).