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.

REFERENCES:


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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 in the provision of art therapy in both units and the need for further research to understand the impact of art therapy interventions.