

# Exercise in older adults with rheumatoid arthritis

## A person-centred approach

Akademisk avhandling

Som för avläggande av medicine doktorexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentlig försvaras i hörsal Arvid Carlsson, Academicum, Medicinaregatan 3, torsdagen den 12 december, klockan 13.00

av

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Fakultetsopponent:

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### Avhandlingen baseras på följande delarbeten:

- I. Lange E, Kucharski D, Svedlund S, Svensson K, Bertholds G, Gjertsson I, Mannerkorpi K. Effects of Aerobic and Resistance Exercise in Older Adults With Rheumatoid Arthritis: A Randomized Controlled Trial. *Arthritis Care and Research* 2019; 71: 61-70.
- II. Kucharski D, Lange E, Ross A.B, Svedlund S, Feldthusen C, Önnheim K, Mannerkorpi K, Gjertsson I. Moderate-to-high intensity exercise with person-centered guidance influences fatigue in older adults with rheumatoid arthritis. *Rheumatology International* 2019; 39: 1585-1594.
- III. Lange E, Palstam A, Gjertsson I, Mannerkorpi K. Aspects of exercise with person-centred guidance influencing the transition to independent exercise: a qualitative interview study among older adults with rheumatoid arthritis. *European Review of Aging and Physical Activity* 2019; 16:4.
- IV. Lange E, Gjertsson I, Mannerkorpi K. Long-time follow up of older adults with Rheumatoid Arthritis after four years. *Manuscript*.

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### **Abstract**

Physical activity and exercise are well known to enhance health and are recommended as part of the management of rheumatoid arthritis (RA). However, the level of physical activity among older adults with RA is found to be low and little research focuses on physical activity and exercise in older adults with RA.

**The overall aim** of this thesis was to study different aspects of exercise with person-centred guidance in older adults with RA.

**Methods:** A randomised controlled trial was performed to study the effects of exercise on disability, and health and fitness-related outcomes. Seventy-four older adults (>65 years) with RA were randomised to moderate- to high intensity exercise with person-centred guidance or light home-exercise for 20 weeks. After the randomised study a qualitative interview study was performed to explore how older adults with RA experience exercise, and aspects that affect the transition to independent exercise. Finally, a long-time follow-up study was performed to evaluate physical activity and physical fitness after four years.

**Results:** The result of the thesis show that exercise with person-centred guidance did not affect disability as assessed with the Health Assessment Questionnaire - Disability Index, but positive effects were found on physical fitness, fatigue, and symptoms of depression when compared to controls. The exercise was experienced as manageable and several aspects affecting the transition to independent exercise were described, including development of a personal way to exercise. After four years, there was no significant difference between groups, when change in physical activity level was compared.

**In conclusion** moderate- to high intensity exercise is beneficial for older adults with RA and is experienced as manageable and prepares the transition to independent exercise. This thesis supports the recommendation of physical activity as part of routine management of RA in adults above 65 years of age. However, maintaining exercise over several years is challenging.

**Keywords:** Exercise, Rheumatoid arthritis, person-centred, physiotherapy, aging