

Fatigue in persons with rheumatoid arthritis

A person-centered physical therapy approach

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- I. Feldthusen C, Björk M, Forsblad-d'Elia H, Mannerkorpi K. Perception, consequences, communication, and strategies for handling fatigue in persons with rheumatoid arthritis of working age - A focus group study. *Clin Rheumatol*. 2013. 32(5): p. 557-66.
- II. Feldthusen C, Grimby-Ekman A, Forsblad-d'Elia H, Jacobsson L, Mannerkorpi K. Seasonal variations in fatigue in persons with rheumatoid arthritis: A longitudinal study. *Submitted manuscript*.
- III. Feldthusen C, Grimby-Ekman A, Forsblad-d'Elia H, Jacobsson L, Mannerkorpi K. Explanatory factors and predictors of fatigue in persons with rheumatoid arthritis: A longitudinal study. *Submitted manuscript*.
- IV. Feldthusen C, Dean E, Forsblad-d'Elia H, Mannerkorpi K. Effects of person-centered physical therapy on fatigue-related variables in persons with rheumatoid arthritis: A randomized controlled trial. *Submitted manuscript*.



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ABSTRACT

Fatigue is a prominent symptom in persons with rheumatoid arthritis (RA) with great impact on daily life. Despite the improvement in pharmacological treatment of RA over the last decades, a large number of persons with RA experience consequences from fatigue. From a patient perspective, fatigue is established as one of the most important symptoms to address in rheumatology.

The overall aim of this thesis was to search for deeper knowledge about fatigue in persons with RA of working age and to evaluate a person-centered physical therapy treatment to reduce fatigue and its consequences on daily life.

Specific aims of the studies included in the thesis were:

- To describe how persons with RA experience and manage their fatigue in daily life.

- To investigate variations in fatigue levels reported by persons with RA at seven different time-points during the four seasons.

- To investigate how disease-related aspects contribute to the variation in general fatigue and multiple aspects of fatigue in persons with RA at four time-points during the four seasons.

- To examine effects of a person-centered physical therapy intervention, with focus on health-enhancing physical activity and balance in life, on fatigue-related variables in persons with RA.

Methods: Qualitative and quantitative methods were used in this thesis, including one qualitative interview study in focus groups, two quantitative observational longitudinal studies and one randomized controlled interventional trial. Participants, diagnosed with RA and of working age were recruited from the rheumatology clinic at Sahlgrenska University hospital.

Results: Fatigue was described by the participants to be associated with negative emotions, imbalance in daily life due to increased need for rest, and difficulties to obtain understanding for their fatigue from significant others and healthcare, forcing the participants to manage their fatigue symptoms by themselves. A variation in fatigue levels was found over time and season with higher levels of physical fatigue during winter. Pain threshold and depressive mood were the strongest explanatory and predictive factors for variations in fatigue over time. Person-centered physical therapy showed significant and sustained effects in reducing fatigue, as well as improving physical function and health in the intervention group compared to the reference group.

In conclusion: Fatigue causes considerable consequences for persons with RA of working age which draws attention to the importance of developing new modes of treatment to address fatigue in RA. Fatigue especially the physical aspects was worse during the winter and pain threshold and depressive mood influenced the variation in fatigue. This highlights the importance of promoting physical activity especially during wintertime to lessen fatigue in persons with RA. Person-centered physical therapy focusing on health-enhancing physical activity and balance in daily life can be recommended as an intervention for fatigue management in persons with RA.

Keywords: fatigue, rheumatoid arthritis, person-centered, physical therapy, physical activity, qualitative content analysis, focus groups, longitudinal study, randomized controlled trial, outcome measures.

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