# LIFESTYLE HABITS IN PATIENTS WITH RHEUMATOID ARTHRITIS - a cross sectional study on two Scandinavian cohorts

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### BACKGROUND

In people with rheumatoid arthritis (RA), modifiable lifestyle factors may not only affect treatment response, but can also increase the risk for cardio-vascular diseases (1). There is little information concerning the prevalence of a combined number of unhealthy lifestyle factors in people with RA.

## **OBJECTIVES**

To study the prevalence of unhealthy lifestyle factors and the association between disease impact and two or more unhealthy lifestyle factors in two Scandinavian RA cohorts.

#### **METHOD**

Data from a Danish cohort (2016-18, n=638) and the Swedish BARFOT cohort (2017, n=1,061) cohort was analysed.

Lifestyle factors (tobacco use, BMI, alcohol consumption and physical activity) were dichotomised as unhealthy vs. healthy, and the combined number of unhealthy lifestyle factors (0-4) were calculated. Disease impact variables were pain, fatigue, patient global health (PatGA), function (HAQ) and quality of life (EQ-5D).

Logistic regression analyses were used to investigate the association between disease impact and two or more unhealthy lifestyle factors.

#### **RESULTS**

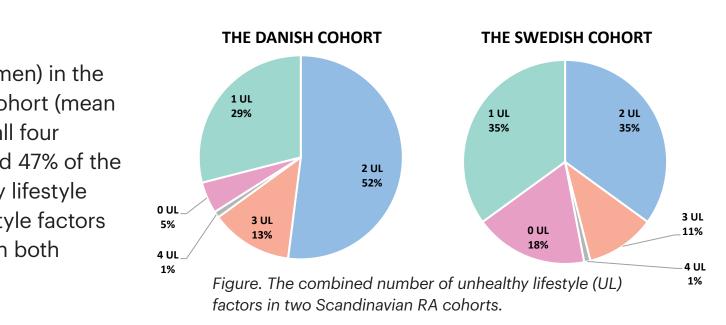
566 patients (mean age 62 (SD 11) years, 72% women) in the Danish cohort and 955 patients in the Swedish cohort (mean age 66 (SD 13) years 73% women) responded to all four lifestyle questions. 66% of the Danish patients and 47% of the Swedish patients reported two or more unhealthy lifestyle factor (figure). The most common unhealthy lifestyle factors were overweight/obesity and physical inactivity in both cohorts.

For Danish patients, two or more unhealthy lifestyle factors were associated with male gender, cardiovascular diseases and disease duration, Table 1. In the Swedish cohort, male gender, number of swollen joints, global health, pain, fatigue, function, quality of life and cardiovascular diseases were associated with two or more unhealthy lifestyle factors, Table 2.

|                               | <2 UL<br>Mean (SD) | ≥2 UL<br>Mean (SD) | OR (C   |  |
|-------------------------------|--------------------|--------------------|---------|--|
|                               | N = 193            | N = 373            |         |  |
| Age, years                    | 62.35<br>(11.61)   | 61.54<br>(10.90)   | 0.99 (( |  |
| Gender, men, n (%)            | 38<br>(19.7)       | 121<br>(32.4)      | 1.86 (1 |  |
| Disease duration, years       | 15<br>(13.27)      | 11<br>(9.25)       | 0.97 (0 |  |
| TJC (0-28)                    | 1.60<br>(3.43)     | 1.74<br>(3.70)     | 1.01 (C |  |
| SJC (0-28)                    | 0.57<br>(1.55)     | 0.50<br>(1.51)     | 0.95 (0 |  |
| PatGA (0-100)                 | 33.36<br>(26.70)   | 34.53<br>(27.65)   | 1.00 (0 |  |
| Pain (0-100)                  | 31.53<br>(24.30)   | 31.22<br>(24.71)   | 0.99 (( |  |
| Fatigue (0-100)               | 37.50<br>(26.80)   | 39.70<br>(28.70)   | 1.00 (0 |  |
| HAQ (0-3)                     | 0.64<br>(0.60)     | 0.67<br>(0.63)     | 1.33 (0 |  |
| EQ5D-5L (0-1)                 | 0.80<br>(0.15)     | 0.78<br>(0.15)     | 0.45 (  |  |
| Cardiovascular disease, n (%) | 61<br>(31.6)       | 172<br>(46.1)      | 1.90 (1 |  |

Table 1. Associations between the combined number of unhealthy lifestyle (UL) factors and diseases related factors among the Danish patients, N=566

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CI 95%) 0.98-1.01) 1.21-2.85) 0.95-0.99) 0.95-1.07) 0.84-1.08) .99-1.01) 0.99-1.01) 0.99-1.01) 0.97-1.82) 0.11-1.78) 1.28-2.82)

Table 2. Association between the combined number of unhealthy lifestyle (UL) factors and diseases related factors among the Swedish patients, N=955

|                               | <2 UL<br>Mean (SD) | ≥2 UL<br>Mean (SD) | OR (CI 95%)      |  |
|-------------------------------|--------------------|--------------------|------------------|--|
|                               | N = 511            | N = 444            |                  |  |
| Age, years                    | 65.71<br>(13.8)    | 67.16<br>(11.71)   | 1.01 (0.99-1.02) |  |
| Gender, men, n (%)            | 122<br>(23.9)      | 137<br>(30.9)      | 1.42 (1.07-1.89) |  |
| Disease duration, years       | 15.61<br>(3.88)    | 15.48<br>(3.81)    | 0.99 (0.06-1.02) |  |
| TJC (0-28)                    | 5.02<br>(6.36)     | 5.40<br>(6.79)     | 1.01 (0.99-1.03) |  |
| SJC (0-28)                    | 2.74<br>(4.56)     | 3.43<br>(5.23)     | 1.03 (1.00-1.06) |  |
| PatGA (0-10)                  | 2.83<br>(2.37)     | 3.27<br>(2.48)     | 1.08 (1.03-1.14) |  |
| Pain (0-10)                   | 3.17<br>(2.45)     | 3.71<br>(2.62)     | 1.10 (1.04-1.15) |  |
| Fatigue (0-10)                | 3.79<br>(2.84)     | 4.41<br>(2.82)     | 1.09 (1.04-1.15) |  |
| HAQ (0-3)                     | 0.45<br>(0.51)     | 0.59<br>(0.60)     | 1.64 (1.28-2.10) |  |
| EQ5D-3L (0-1)                 | 0.74<br>(0.22)     | 0.68<br>(0.27)     | 0.35 (0.20-0.60) |  |
| Cardiovascular disease, n (%) | 218<br>(42.7)      | 253<br>(57)        | 1.83 (1.40-2.43) |  |
| Pulmonary disease, n (%)      | 53<br>(10.4)       | 60<br>(13.5)       | 1.34 (0.90-1.99) |  |

## **CONCLUSION**

- Every other patient with RA had two or more unhealthy lifestyle factors in both the Danish and Swedish cohort, and more often they were men
- The combined number of unhealthy lifestyle factors was not necessarily associated with disease impact
- The findings are important for health professionals working with lifestyle interventions in patients with RA

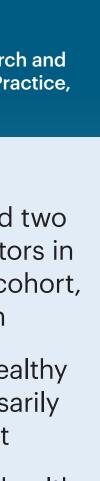
#### REFERENCES

1. Smolen JS et al. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2019 update. Ann Rheum Dis. 2020;79(6):685-99



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