

# COPING SELF-EFFICACY AND NEUROTICISM AS EXPLANATORY VARIABLES OF ANXIETY AT EARLY AND ESTABLISHED STAGE OF RHEUMATOID ARTHRITIS



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## BACKGROUND AND AIM

Anxiety is often an underscoring and untreated comorbidity in Rheumatoid Arthritis (RA) patients yet research indicates that anxiety constitutes a serious problem [1]. The aim of this study was to explore whether coping self-efficacy and neuroticism are associated with anxiety levels in recently diagnosed and established RA patients [2-3].

## METHODS

### SAMPLES

- 102 early patients (RA 4yrs or less; age 53±12.32; 75% women)
- 146 established patients (RA 12yrs or more; age 58±10.38; 86% women)

### MEASURES

#### Independent variables

**Socio-demographic variables:** age, gender, living alone or with a partner (self - reported)

**Disease duration:** time since the diagnosis of RA in years

**Disease activity:** Visual Analog Scale for disease activity, swollen and sensitive joint count of 28 joints and ESR combined into a single score - Disease Activity Scale 28 (DAS 28)

**Functional status:** Groningen Activity Restriction Scale (GARS;  $\alpha=0.91$ )

**Extraversion and Neuroticism:** EPQR- SS ( $\alpha=0.82$ )

**Coping self-efficacy:** Coping Self-efficacy Scale (CSE;  $\alpha=0.96$ )

**Dependent variable**

**Anxiety:** Hospital Anxiety Depression Scale (HADS;  $\alpha=0.79$ )

### STATISTICAL ANALYSES

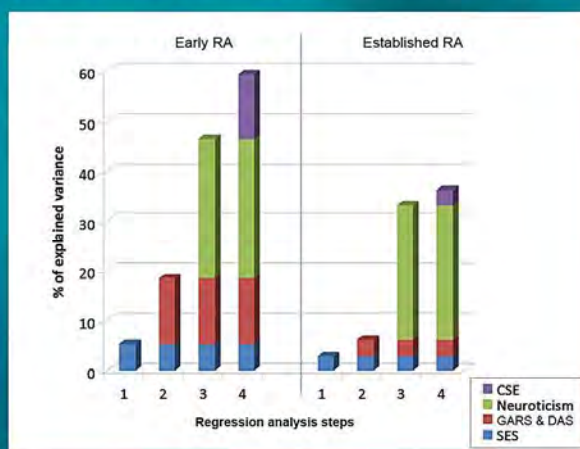
The early and established groups were compared using independent t-tests. Hierarchical linear regression models were conducted to explore the associations of neuroticism and coping self-efficacy with anxiety after controlling for relevant variables.

## RESULTS

The two explored patient groups did not differ in levels of anxiety on the group level. Hierarchical regression model (Figure 1 left part) revealed that within the early patient group coping self-efficacy was significantly negatively associated with anxiety ( $\beta=-0.40$ ;  $p<0.05$ ) and positively with neuroticism ( $\beta=0.35$ ;  $p<0.001$ ) after socio-demographic and disease related variables were controlled for (step 1 and step 2). The model accounted for 59% of the variance in anxiety.

The second linear regression model (Figure 1 right part) revealed a similar pattern in the established patient group where coping self-efficacy was negatively associated with anxiety ( $\beta=-0.23$ ;  $p<0.001$ ) and neuroticism was also found to be positively related to anxiety ( $\beta=0.46$ ;  $p<0.001$ ). The final model accounted for 32.5% of the variance in anxiety among the patients with established RA.

Figure 1 Variables explaining variance in ANXIETY based on multiple regression analysis among early and established RA patients (displayed values are % of adjusted R2)



## CONCLUSION

This study reveals that levels of anxiety in both the beginning phase and established phase of RA are associated with relatively stable personality dimensions such as neuroticism but also shows that self-efficacy to use coping behaviors explained additional variance. Findings suggest that management and intervention programs incorporating the concept of self-efficacy for coping strategies might be beneficial for addressing anxiety especially during the early phase of the disease.

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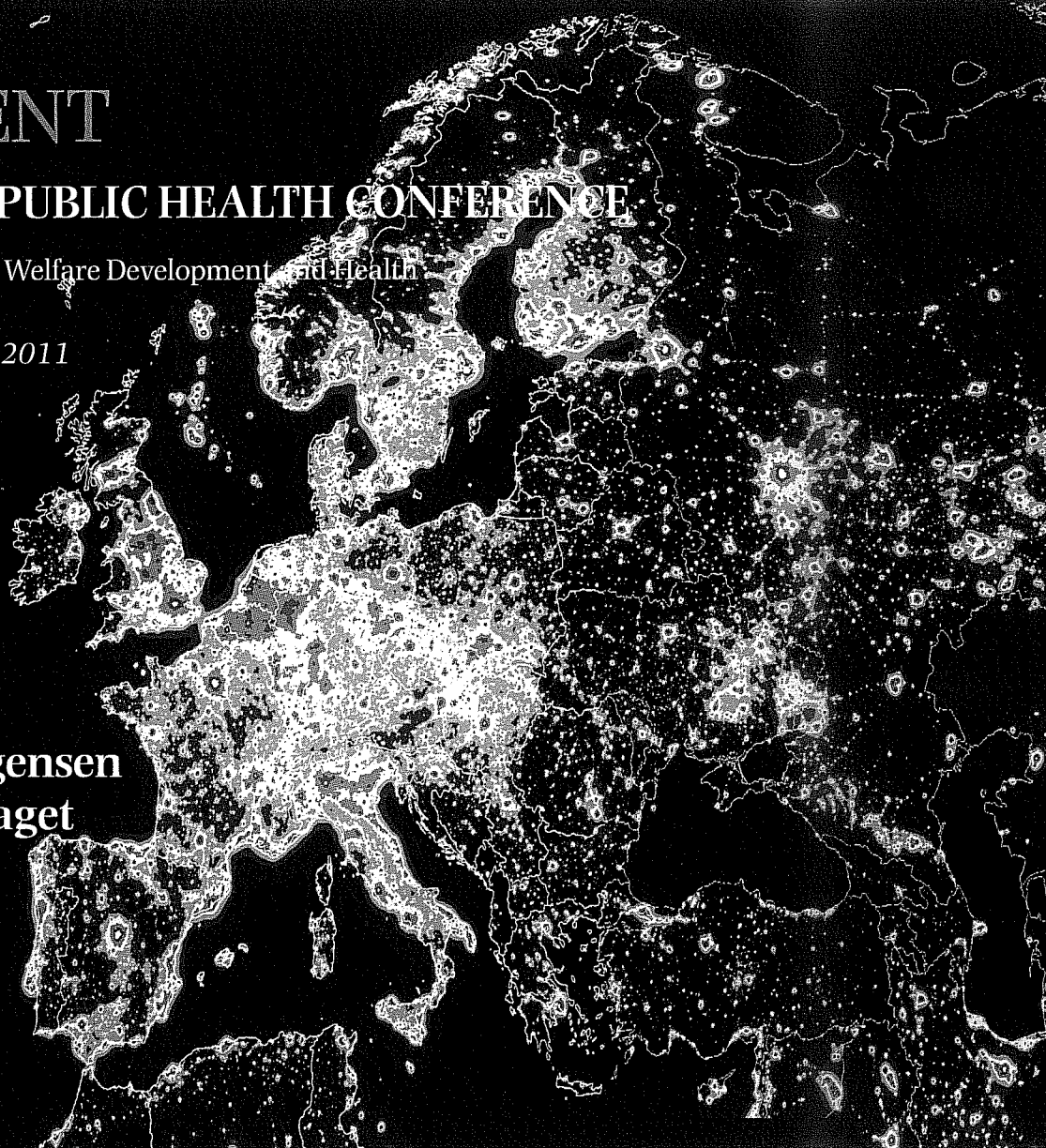
SUPPLEMENT

4TH EUROPEAN PUBLIC HEALTH CONFERENCE

Public Health and Welfare – Welfare Development and Health

*Copenhagen, 9–12 November 2011*

**Guest editors:**  
**Torben Jørgensen**  
**Finn Kamper-Jørgensen**  
**Dineke Zeegers Paget**



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**ABSTRACT SUPPLEMENT**

**Guest editors: Torben Jørgensen, Finn Kamper-Jørgensen, Dineke Zeegers Paget**

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HRQL comparisons will be conducted using MacNew, MLHF and SAQ scores.

### Conclusion

Illustrating differences across diagnosis and Scandinavian countries in HRQL for a sample of 976 patients will be of inspiration in regard to treatment offers and public health activities for this large group of people living with IHD.

### Coping self-efficacy and neuroticism as explanatory variables of anxiety at early and established stages of rheumatoid arthritis

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### Background

Anxiety is often an underestimated and untreated comorbidity in Rheumatoid Arthritis (RA) patients. The aim of this study was to explore whether coping self-efficacy and neuroticism were associated with anxiety levels in recently diagnosed and established RA patients.

### Methods

Data were collected at outpatient rheumatology clinics in eastern Slovakia. The sample consisted of 102 early patients

(RA less than 4yrs; age  $53 \pm 12.32$ ; 75% women) and 146 established patients (RA 12yrs or more; age  $58 \pm 10.38$ ; 86% women). Patients completed questionnaires about functional status, the coping self-efficacy scale (CSE), neuroticism and extraversion (EPQR-S), and anxiety (HADS). Additional data were obtained from medical files. The early and established groups were compared using independent t-tests. Hierarchical linear regression models were conducted to explore the associations of neuroticism and coping self-efficacy with anxiety after controlling for relevant variables.

### Results

The two explored patient groups did not differ in levels of anxiety. Hierarchical regression models revealed that in the early patient group coping self-efficacy was significantly associated negatively with anxiety ( $\beta = -0.40$ ;  $p < 0.05$ ) and positively with neuroticism ( $\beta = 0.35$ ;  $p < 0.001$ ) after socio-demographic and disease-related variables were controlled for. The model accounted for 59% of the variance in anxiety. Hierarchical linear regression revealed a similar pattern in the established patient group, where coping self-efficacy was negatively associated with anxiety ( $\beta = -0.23$ ;  $p < 0.001$ ) and neuroticism positively ( $\beta = 0.46$ ;  $p < 0.001$ ). The final model accounted for 32.5% of the variance in anxiety among the patients with established RA.

### Conclusions

This study reveals that levels of anxiety in both the beginning phase and established phase of RA are associated with relatively stable personality dimensions such as neuroticism but also shows that self-efficacy in using coping behaviours explained additional variance. Findings suggest that management and intervention programs incorporating the concept of self-efficacy for coping strategies might be beneficial for addressing anxiety, especially during the early phase of the disease.