

## Work and family factors as predictors of stress-related Exhaustion Disorder: A longitudinal study of Swedish health care workers

### Gunnar Ahlberg Jr

Director of the Institute of Stress Medicine, Region Västra Götaland, SWEDEN

Associate professor, Department of Public Health and Community Medicine, Sahlgrenska Academy, University of Gothenburg

Co-workers: Katrin Skagert, Annemarie Hultberg, Emina Hadzibajramovic and Sandra Pettersson, Institute of Stress Medicine

## Introduction

### Health care sector:

- Increasing demands
- Rapid changes
- Limited resources
- Female dominated workforce
- Many work environment exposures
- Stress-related mental health problems common

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## Aim

To investigate work and family factors as predictors of self-reported Exhaustion Disorder among employees at a large public health care organisation in western Sweden

and

to explore if there are differences in this respect between male and female workers

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## Methods

**Study design:** Prospective cohort study

**Data collection:** Postal questionnaire 2008 and 2010

**Study population,** two samples:

1. Participants of "old cohort"; n=1972 in 2008 and n=1422 in 2010 (72%).
2. New stratified sample of men, younger employees and managers; n=1237 in 2008 and n=801 in 2010 (65%)

All participants 2010 who did not comply with s-ED in 2008 were included in the predictor analysis:

**N=1886 (1504 women,382 men)**

Largest occupational groups:

Nurses 29%, assistant nurses 12%, managers 10% and doctors 9%

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## Measures

**Work factors:** Work demands and control (JCQ11) (low/medium/high)  
Social support at work (single item)  
Important change at work (single item)

**Family factors:** Marital status – living single  
Children in the home  
(age, nicotine use and physical activity)

**Outcome:** Self-reported Exhaustion Disorder (s-ED)

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## s-ED

- New instrument for assessment of stress-related exhaustion.
- Based on diagnostic criteria for Exhaustion Disorder
- Four items: Exhausted >2 w; stress exposed >6 m; stress symptoms (>3 of 6); significant reduction of wellbeing and/or functional impairment.
- Good reliability and validity (Glise et al 2010)

9.2% reported s-ED at follow-up (men 6.6%; women 9.8%)

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## Statistical analysis

Relative risks (RR), with 95% confidence interval (CI), of s-ED at follow-up for work and family factors at baseline were calculated by Cox regression with constant time at risk.

Bivariate analyses for men and women separately and multivariate analysis for women only.

## Results – Relative risks for s-ED at follow-up

Variable	Women		Women Multivariate*	Men		
	RR	CI		RR	CI	
High demands	2.4	1.5-3.6	2.3	1.4-3.5	3.4	1.0-10.9
Low control	1.8	1.1-2.8	1.7	1.0-2.6	2.6	1.0-6.8
No support	1.8	1.1-3.0	1.6	1.0-2.7	1.0	0.3-2.9
Negative change	1.4	0.9-2.0	Not included		2.3	0.9-5.7
Being single	1.3	0.9-1.9	1.4	0.9-2.2	0.9	0.3-2.7
Parental resp.	1.4	0.8-1.6	1.3	0.9-1.9	0.7	0.3-1.6

\* All variables included + physical activity

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## Conclusions

- The work factors predicted s-ED at follow-up, most clearly among the female health care workers.
- Low social support at work was a predictor among women but not among men.
- Marital status and parental responsibility was not associated with s-ED at follow-up. but...
- Limited number of male participants – study of larger sample is needed.
- Few family factors were included – more should be added in future studies.

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