

# GENETIC EPIDEMIOLOGY OF BURNOUT. A TWIN-FAMILY STUDY.

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## Introduction

The aim of this study was to investigate the influence of genetic factors (G), common environment (C) and unique environment (E) on individual differences in burnout.

## Methods

### - Population:

2707 twins, 737 siblings and 575 spouses.

### - Questionnaire:

Emotional Exhaustion Subscale of the Maslach Burnout Inventory – General Survey

### - Background of the twin-family design

- MZ twins share (nearly) all their genes.
- DZ twins and siblings share  $\pm 50\%$  of their genes.
- MZ and DZ twins share the same amount of environment.
- Siblings might share less of their environment.
- Spouses share environment.

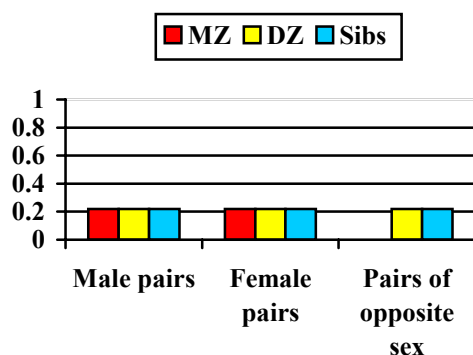


### - Therefore

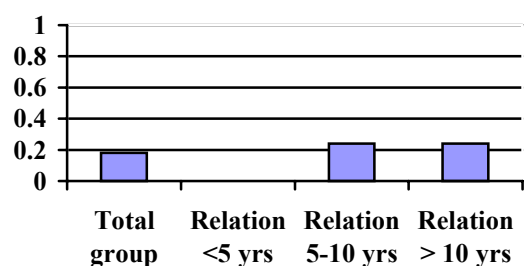
- Correlations MZ > DZ ~ sibs → Genetics explains resemblance (G)
- Correlations MZ = DZ ~ sibs → Common family environment explains resemblance (C)
- Differences in MZ → Importance of unique environment (E)
- Correlation spouses > 0 → C or non-random mating

## Results

Correlations total burnout score



Correlations total burnout score spouses



## Conclusions

- Burnout is mostly influenced by unique environmental factors, which explain 78% of the variance. These could include work related factors.
- The remaining part of the variance (22%) is explained by common environment. This is supported by the significant partner correlation, especially since this correlation increases with the length of the relationship.
- Genetic factors do not seem to be of any importance. This finding is rather unexpected, because most (personality) traits are genetically influenced.