

Unnecessary work tasks and mental health: a prospective analysis of Danish human service workers

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Unnecessary work tasks and mental health: a prospective analysis of Danish human service workers

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Objectives According to the “stress-as-offense-to-self” perspective, work tasks that are considered unnecessary or unreasonable – so-called “illegitimate work tasks” – are likely to elicit stress-reactions. Previous studies, mostly cross-sectional, have shown that illegitimate tasks are associated with increased self-reported stress, cortisol, and counterproductive work behavior. In this article, we examine the prospective association between unnecessary work tasks, one type of illegitimate work tasks, and mental health among Danish human service workers. Further, we explore whether this association is modified by sex, age, occupational position, and baseline mental health status.

Methods The data were obtained from self-administered questionnaires from 1351 Danish human service workers in three waves of data-collection during 1999–2005. We measured unnecessary work tasks by a single item, and assessed mental health using the 5-item mental health inventory from the Short form 36 questionnaire. We analyzed data using multi-level modeling, adjusting for potential confounding by sex, age, cohabitation, occupational position, and baseline mental health.

Results Unnecessary work tasks were prospectively associated with a decreased level of mental health. This association was stronger for employees with poor baseline mental health and tended to be more pronounced among older employees. Among participants with high baseline mental health, the association was not significant, neither psychological demands nor decision latitude.

Conclusions Our findings suggest that the association between unnecessary work tasks and mental health, particularly among employees with poor baseline mental health, is modified by age and baseline mental health.

Key terms illegitimate task; occupational position; mental health

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Background I

- Mental disorders are a leading cause of disability in high-income countries (Whiteford 2010)
- World Health Organization 2005:

Mental health is not just the absence of disease or infirmity but

“...a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”

- Reduced mental health is associated not only with reduced quality of life but also societal costs e.g. sickness absence (Hjarsbech et al. 2011)



Background II

- Work environment factors such as job strain and effort reward imbalance consistently linked with mental health (problems)
 - these models were developed some 20 years ago particularly focusing on cardiovascular disease
- Stress-as-offense to self framework (Semmer et al. 2007):
 - stress-reactions are caused by experiences that are offensive to the self
 - framework that ties together previous models (e.g. ERI) but also proposes new potential stressors

”Stress-as-offense-to-self”

- Semmer’s threats to self :
 - Personal self-esteem (failure attributed internally)
 - Social esteem (lack of appreciation and respect):
 - ”illegitimate behaviors”: direct, e.g. attacking, ridiculing, bullying
 - ”illegitimate stressors”: indirect, show lack of consideration
 - ”illegitimate tasks” : assignment of unreasonable or unnecessary tasks

”Stress-as-offense-to-self”

- Illegitimate tasks:
 - tasks \neq core role of the employee
 - unreasonable: should be conducted by someone else
 - unnecessary: should not be conducted at all



Background

- Previous studies have associated illegitimate work tasks with:
 - decreased well-being
 - increased stress levels (self-report)
 - increased cortisol levels
 - increased counterproductive work behavior
- Most studies are cross-sectional and none have focused on developments in mental health
 - likely to be particularly relevant as self-esteem plays a central role in the development of mental health problems such as depression

Data

- Project on Burnout, Motivation and Job Satisfaction (PUMA)
 - Study conducted during 1999-2005 (3 waves)
 - Participants were recruited from 7 human service organizations (e.g. hospitals, homecare for the elderly, psychiatric prison, social security offices)
- We included individuals who participated in at least two subsequent waves participants from two subsequent waves (1 351 persons / 1 971 observations with full data)

Measurements

- Unnecessary work tasks:

“Do you sometimes have to do things in your job which appear to be unnecessary?”

- five response categories: “always” to “never/almost never”
- always/often were collapsed for analyses

- Mental health Inventory (MHI-5):

- “How much of the time in the past four weeks have you... (i) been very nervous, (ii) felt downhearted, (iii) felt happy, (iv) felt calm and peaceful, and (v) felt so down in the dumps that nothing could cheer you up?”
 - Each item scored 0-100 and a mean value score calculated

Analyses

- Multilevel modeling examining baseline (t1 or t2) unnecessary work tasks as predictor of follow up (t2 or t3) mental health
- Adjusted for: sex, age, cohabitation and baseline mental health (continuous score)
- Effect-modification by: sex, age, occupational position, or poor baseline mental (MHI-5 \leq 52)

Study population

Table 1. Characteristics of the study population [SD=standard deviation]

| | Wave 1–2 participants | | | | Wave 2–3 participants | | | |
|--------------------------------|-----------------------|-----|------|------|-----------------------|-----|------|------|
| | N | % | Mean | SD | N | % | Mean | SD |
| N total | 981 | 100 | | | 990 | 100 | | |
| Age | | | 44.4 | 8.7 | | | 44.9 | 9.2 |
| Women | 815 | 83 | | | 834 | 84 | | |
| Cohabiting | 806 | 82 | | | 797 | 81 | | |
| Unnecessary work tasks | | | | | | | | |
| Always/often | 122 | 12 | | | 154 | 16 | | |
| Sometimes | 402 | 41 | | | 401 | 41 | | |
| Seldomly | 337 | 34 | | | 340 | 34 | | |
| Never/almost never | 120 | 12 | | | 95 | 10 | | |
| Occupational position | | | | | | | | |
| High | 271 | 28 | | | 281 | 28 | | |
| Intermediate | 315 | 32 | | | 343 | 35 | | |
| Low | 395 | 40 | | | 366 | 37 | | |
| Poor mental health, baseline | 62 | 6 | | | 86 | 9 | | |
| Mental health level, baseline | | | 79.5 | 14.3 | | | 77.9 | 15.3 |
| Mental health level, follow up | | | 76.9 | 16.0 | | | 76.6 | 16.2 |

Results I

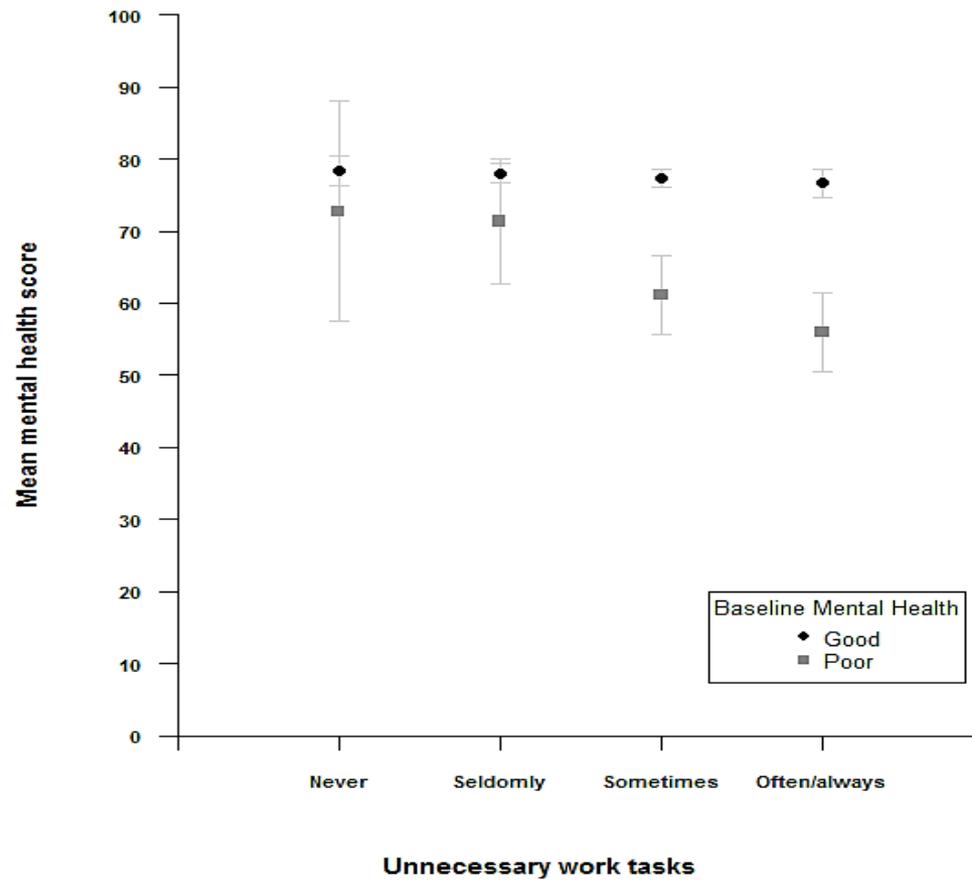
Table 2. Unnecessary work tasks at baseline and mental health at follow-up [95% CI=95% confidence interval]

| | Mental health | | <i>b</i> | P-value, type 3 test |
|------------------------|--------------------|-------------|--------------------|-------------------------|
| | Mean | 95% CI | | |
| Unnecessary work tasks | | | | 0.0038 |
| Always/often | 74.00 ^a | 72.22–75.78 | -4.20 ^a | |
| Sometimes | 76.00 ^a | 74.75–77.26 | -2.19 ^a | |
| Seldomly | 77.47 | 76.11–78.84 | -0.73 ^a | |
| Never/almost never | 78.20 | 76.10–80.29 | Reference | |

^a Estimates are adjusted for sex, age, cohabitation, occupational position, and baseline mental health score.

^a P<0.001.

Results II



Adjusted for sex, age, cohabitation and baseline mental health (continuous score)



Results III

- No effect-modification by sex or occupational position
- Some tendency for age (not statistically significant)
- Association between unnecessary work tasks and mental health robust to adjustment for demands and control in participants with poor baseline mental health

Discussion

- Kottwitz et al. found that the association between illegitimate work tasks and cortisol was stronger in individuals with poor self-rated health
 - Individuals with reduced (mental) health may be more vulnerable to illegitimate work tasks
- Unnecessary work tasks e.g. unnecessary documentation has received a lot of attention in the public debate, particularly from public sector employees
 - Relevance outside the public sector?
- Limitations:
 - Self-reported data on exposure and outcome (common method bias)
 - Single item measure on unnecessary work tasks

Conclusion

- Unnecessary work tasks were prospectively linked with decreased mental health
- This association was stronger in individuals who already had poor mental health at baseline
- Unnecessary / illegitimate work tasks appear to be a relevant aspect of the psychosocial working environment, independently from job demands and control

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