

# Can a participatory intervention with actions plans across multiple organizational levels lead to changes in stress and the psychosocial working environment within two different organizations?

<b>Submission date</b> 12/04/2019	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 23/04/2019	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 31/01/2025	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data

## Plain English Summary

### Background and study aims

Stress at work is the second most common threat posed by the working environment. In 2005 stress was experienced by 22% of EU workers. In 2016, 15.5% of the Danish population reported that they felt stressed "all the time" or "often" during the last two weeks, and 43.3% pointed to work as the main cause of stress. Work-related stress may be defined as "a condition which arises when demands of the work environment exceed the workers' ability to cope with (or control) them". Research has indicated that stress at work is associated with cardiovascular diseases, musculoskeletal diseases, immunological problems, and problems with mental health (anxiety and depression disorders). Moreover, stress increases absenteeism, presenteeism and staff turnover, and decreases productivity. Thus, stress poses significant challenges at the individual, group, organizational and societal level.

Studies have shown positive effects of individual strategies to reduce stress, although the effects may be temporary. A few studies have focused on organizational aspects, such as workload. Researchers agree that organizational prevention has the potential to prevent stress rather than primarily alleviate symptoms. Overall, prevention studies have mostly intervened at one level of the organization rather than conducting interventions at several levels simultaneously. In contrast, this study aims to address and integrate interventions across the individual, group, leader/manager and organizational levels (IGLO). Furthermore, this study will draw upon participation and combine bottom-up and top-down intervention strategies and as such stimulate cooperation across organizational levels.

### What does the study involve?

This study aims to test and adjust a method, which was constructed by and implemented in Novo Nordisk. Their results showed a reduction from 15 % to 10 % in employee stress levels. The method is characterized by the use of participatory risk assessment and action planning at the team level, after which identified risks, which cannot be addressed at the team level are

reported to the management for further action planning. The method has a particular focus on the organizational level, as this level has the potential for broader actions and more enduring stress prevention. The intervention activities include:

1. Train the Trainer: All HR Partners will be trained to use dialogue based mapping tools. HR Partners subsequently train leaders in use of mapping tools
2. Team dialogues: All leaders use a dialogue tool in their team. As part of the team dialogue process, participants note future actions in the IGLO action plans
3. Escalation: Action plans, which only can be resolved at the O-level are escalated to the next management level.
4. Collection: All IGLO action plans are sent to a HR mailbox after the team sessions. Issues are placed at relevant level. General trends are identified.
5. Consolidation: All organizational levels work with IGLO plans

To evaluate the intervention's success, the study conducts a thorough effect and process evaluation. Data is collected using questionnaires before and after the intervention, and further by interviews during the implementation phase. Finally, all action plans are collected in order to assess to which degree actions are actually implemented.

Who can participate?

Workplaces with a minimum of three organizational levels and with some heterogeneity among staff, such as professions and educational level. We have a total of 2 organizational settings with no less than 500 employees.

What are the possible benefits and risks of participating?

The benefits are a potential improvement of work conditions and a reduction of stress levels among employees. There are no risks of participating.

Where is the study run from?

The study is a collaboration between Aarhus University, Department of Occupational Medicine, Regional Hospital Herning, and the National Research Centre for the Working Environment.

When is the study starting and how long is it expected to run for?

The study is starting in spring 2019 beginning with baseline measures and ending in spring 2020, so the approximate duration of the study is one year.

Who is funding the study?

The Danish Working Environment Research Fund (Denmark)

Who is the main contact?

Tanja Kirkegaard, [tanjak@psy.au.dk](mailto:tanjak@psy.au.dk)

## Contact information

**Type(s)**

Public

**Contact name**

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## **Additional identifiers**

### **EudraCT/CTIS number**

Nil known

### **IRAS number**

### **ClinicalTrials.gov number**

Nil known

### **Secondary identifying numbers**

2016-051-000001

## **Study information**

### **Scientific Title**

Organizational stress prevention – a participatory intervention with actions plans across multiple organizational levels.

### **Acronym**

TvIS project

### **Study hypothesis**

Main hypothesis:

Stress levels and the psychosocial working environment (PSWE) will improve significantly post-intervention compared to baseline.

Secondary hypotheses:

If the main hypothesis is confirmed, then:

1. Changes in stress will be mediated by changes in PSWE at follow-up
2. Workplaces with low baseline scores of stress and more positive perceptions of PSWE will experience smaller improvements post-intervention (i.e., a ceiling effect)
3. The psychosocial safety climate and employees' satisfaction with the psychosocial working environment will improve significantly post-intervention compared to baseline.
4. Employee participation will improve significantly post-intervention compared to baseline.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

As no biological data is collected ethics approval is not necessary according to the Danish regulations.

### **Study design**

Prospective cohort design

## **Primary study design**

Interventional

## **Secondary study design**

Non randomised study

## **Study setting(s)**

Other

## **Study type(s)**

Prevention

## **Participant information sheet**

Not available in web format, please use contact details to request a participant information sheet.

## **Condition**

Quality of life

## **Interventions**

The intervention consists of four phases:

1. Mapping: questionnaires sent to all employees at the workplace
2. Intervention: training HR, HR training managers, team dialogues and sending actions plans to HR for further categorization.
3. Consolidation: escalating action plans to the relevant level, all levels working with action plans
4. Evaluation: questionnaires sent to all employees at the workplace

The specific components of the intervention include education on work environment and work stress, training in general communicative practices and use of a specific dialogue tool. Further, the intervention involves specific materials such as actions plans targeting both individual, group, leader/manager and organizational levels (i.e., the IGLO principle), and a systematic strategy for collecting and analyzing action plans.

We will collect data by use of questionnaires, interviews, action plans, implementation documentation and background documents (for example organizational structure) from the participating workplaces.

A prospective cohort design examining changes in stress and the psychosocial working environment within two different organizations after the implementation of a participatory intervention with actions plans across multiple organizational levels.

## **Intervention Type**

Other

## **Primary outcome measure**

1. Perceived stress measured by perceived stress scale (PSS-10) and a single-item measure of stress symptoms (Ero A-L & A. Leppänen 2003) at baseline in May 2019, June 2019 and follow-up in April 2020 and June 2020
2. Measures of the psychosocial working environment measured with the Danish Psychosocial Questionnaire domain (Clausen et al. 2017): influence, possibilities for performing work tasks,

predictability, quantitative demands, justice, justice in the workplace, recognition, social support from colleagues, trust between colleagues, social support from management, work-life balance; at baseline in May 2019, June 2019 and follow-up in April 2020 and June 2020.

### **Secondary outcome measures**

1. Psychosocial safety climate assessment (Dollard et al. 2010)
2. Satisfaction with the psychosocial work environment questionnaire (Clausen et al. 2017)
3. Voice behavior questionnaire (Detert & Burris 2007)
4. Distributed leadership questionnaire (Jønsson 2019)
5. Empowering leadership questionnaire (Arnold et al. 2000)
6. Psychological safety questionnaire (Edmondson 1999)

Secondary outcomes are measured at the same time points as the primary outcomes.

### **Overall study start date**

01/04/2017

### **Overall study end date**

15/06/2020

## **Eligibility**

### **Participant inclusion criteria**

1. Staff at workplaces with a minimum of three organizational levels
2. Staff at workplaces with some heterogeneity among staff, such as professions and educational level.

### **Participant type(s)**

Healthy volunteer

### **Age group**

Adult

### **Sex**

Both

### **Target number of participants**

500

### **Participant exclusion criteria**

1. Individuals not employed at the participating companies

### **Recruitment start date**

05/05/2019

### **Recruitment end date**

15/06/2020

## **Locations**

### **Countries of recruitment**

Denmark

**Study participating centre**

**Aarhus University**

Bartholins Alle 9

Aarhus C

Denmark

8000

**Study participating centre**

**Department of Occupational Medicine, Region Hospital of Herning**

Gl. Landevej 61

Herning

Denmark

7400

**Study participating centre**

**The National Research Center of Working Environment**

Lersø Park Alle 105

København

Denmark

2100

## **Sponsor information**

**Organisation**

Department of Occupational Medicine, Regional Hospital of Herning

**Sponsor details**

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**Sponsor type**

Hospital/treatment centre

**ROR**

<https://ror.org/02ckh3s34>

# Funder(s)

## Funder type

Government

## Funder Name

The Danish Working Environment Research Fund (Arbejdsmiljø) Denmark

# Results and Publications

## Publication and dissemination plan

We expect to publish the trial results in up to three scientific research papers submitted to peer-reviewed journals. At least one paper will report the main analyses focusing on the primary and secondary outcomes. In addition, we expect one or two of the papers to involve analyses of process evaluation data which can elucidate important preconditions and mechanisms influencing the trial outcomes.

## Intention to publish date

01/06/2021

## Individual participant data (IPD) sharing plan

The current data sharing plans for this study are unknown and will be available at a later date

## IPD sharing plan summary

Data sharing statement to be made available at a later date

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>		30/01/2025	31/01/2025	Yes	No