

# Healthy and safe workplaces within the construction industry

<b>Submission date</b> 02/01/2020	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 12/02/2020	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 11/10/2022	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Poor mental health is the dominant cause of sick leave in Sweden today and we have strong reasons to believe that certain work environment conditions is one contributing factor. We know which these conditions are, however, we don't know how to change them. This means that we lack knowledge on what methods are effective in improving organisational and social work conditions and stress in the workplace.

Interventions to address work-related stress are increasing but are mainly secondary or tertiary. Secondary interventions are directed at individuals at risk of developing stress responses. Tertiary interventions focus on treating existing diagnosed conditions. Primary interventions, on the other hand, are preventive and aim to deal with organisational factors as causal stress agents. The aim of the study is to evaluate an organisational primary intervention with the aim to improve organisational and social work conditions and reduce stress within the construction industry.

### Who can participate?

Managers and employees within the two studied regions in the construction company.

### What does the study involve?

The study involves one intervention and one matched control group. For the intervention group, the project contains three phases. In the first phase we conducted a needs assessment using a formative evaluation. Interviews were carried out and a survey in order to answer the questions: What works well and what needs to be improved regarding the organizational and social work environment?

In the second phase researchers and representatives from different levels and districts worked together to prioritize outcomes and define essential intervention elements. We also discussed and formulated suggestions for how the intervention could be implemented in a good way. In the third phase implementation and evaluation take place.

The control group participates through answering the baseline and follow-up survey.

What are the possible benefits and risks of participating?

Benefits: Reduced stress and improved work conditions.

Risks: Lack of improvements may cause disappointment among participants which in turn may lead to a more negative perception of work.

Where is the study run from?

Institute of Environmental Medicine, Karolinska Institute, Stockholm, Sweden

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

May 2019 to December 2021

Who is funding the study?

AFA Insurance, Sweden

Who is the main contact?

Dr Gun Johansson

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## Contact information

### Type(s)

Scientific

### Contact name

Dr Gun Johansson

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## Additional identifiers

### EudraCT/CTIS number

Nil known

### IRAS number

### ClinicalTrials.gov number

Nil known

### Secondary identifying numbers

Nil known

# Study information

## Scientific Title

Evaluation of a primary organisational co-created intervention with the aim to improve organisational and social work conditions and decrease stress within the construction industry

## Study objectives

Given that the managers adhere to the intervention we expect to see a greater improvement in work conditions (role clarity, influence, work pace, quantitative job demands), team effectiveness and stress in the intervention group compared to the control group.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Approved 21/05/2019, Swedish Ethical Review Authority (Etikprövningsmyndigheten, Box 2110, 750 02, Uppsala, Sweden; +46 10-475 08 00; [registrator@etikprovning.se](mailto:registrator@etikprovning.se)), ref: 2019-02662

## Study design

This is a controlled trial with one intervention and one control group with a 12 month follow-up

## 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 the contact details to request a participant information sheet.

## Health condition(s) or problem(s) studied

Work related stress

## Interventions

Current interventions as of 14/02/2020:

The core intervention components are:

1. Assessment for first line managers

Assessment = making structured and collective (involving blue-collar workers) planning for all elements of the production (planning for blue-collar workers)

2. Duties clarification for project managers

Duties clarification and staffing plan = making clear role descriptions for all members of the production teams (white-collar workers), visualizing the plan and revising it continuously throughout the project. The staffing plan is closely related to the duties clarification and should

also be scrutinized and revised.

3. For the support function team ("operational support") the highest manager will give feedback on the results of the survey and together with the team conduct a tailored action plan. Hence, the intervention activities will not be assessment and duties clarification for this group.

The study involves one intervention and one matched control group. For the intervention group, the project contains three phases. In the first phase we conducted a needs assessment using a formative evaluation. Interviews were carried out and a survey in order to answer the questions: What works well and what needs to be improved regarding the organizational and social work environment?

In the second phase researchers and representatives from different levels and districts worked together to prioritize outcomes and define essential intervention elements. We also discussed and formulated suggestions for how the intervention could be implemented in a good way. In the third phase implementation and evaluation take place.

The control group participates through answering the baseline and follow-up survey.

Previous interventions:

The core intervention components are:

1. Assessment for first line managers

Assessment = making structured and collective (involving blue-collar workers) planning for all elements of the production (planning for blue-collar workers)

2. Duties clarification for project managers

Duties clarification and staffing plan = making clear role descriptions for all members of the production teams (white-collar workers), visualizing the plan and revising it continuously throughout the project. The staffing plan is closely related to the duties clarification and should also be scrutinized and revised.

3. For the two support function teams (employees not dedicated to a project) the highest manager will give feedback on the results of the survey and together with the team conduct a tailored action plan. Hence, the intervention activities will not be assessment and duties clarification.

The study involves one intervention and one matched control group. For the intervention group, the project contains three phases. In the first phase we conducted a needs assessment using a formative evaluation. Interviews were carried out and a survey in order to answer the questions: What works well and what needs to be improved regarding the organizational and social work environment?

In the second phase researchers and representatives from different levels and districts worked together to prioritize outcomes and define essential intervention elements. We also discussed and formulated suggestions for how the intervention could be implemented in a good way. In the third phase implementation and evaluation take place.

The control group participates through answering the baseline and follow-up survey.

## **Intervention Type**

Behavioural

## **Primary outcome measure**

Current primary outcome measure as of 26/04/2021:

Stress, measured with the COPSOQ III questionnaire at baseline, 12, and 24 months

Previous primary outcome measure:

Stress, measured with the COPSOQ III questionnaire at baseline and 12 months

### **Secondary outcome measures**

Current secondary outcome measures as of 26/04/2021:

1. Quantitative demands, measured with the COPSOQ III questionnaire at baseline, 12, and 24 months
2. Role clarity, measured with the COPSOQ III questionnaire at baseline, 12, and 24 months
3. Psychosocial safety climate, measured with questionnaire at baseline, 12, and 24 months
4. Team effectiveness, measured with questionnaire at baseline, 12, and 24 months
5. Staffing, measured with questionnaire at baseline, 12, and 24 months
6. Planning, measured with questionnaire at baseline, 12, and 24 months

Previous secondary outcome measures as of 14/02/2020:

1. Quantitative demands, measured with the COPSOQ III questionnaire at baseline and 12 months
2. Role clarity, measured with the COPSOQ III questionnaire at baseline and 12 months
3. Psychosocial safety climate, measured with questionnaire at baseline and 12 months
4. Team effectiveness, measured with questionnaire at baseline and 12 months
5. Staffing, measured with questionnaire at baseline and 12 months
6. Planning, measured with questionnaire at baseline and 12 months

Previous secondary outcome measures:

1. Quantitative demands, measured with the COPSOQ III questionnaire at baseline and 12 months
2. Work pace, measured with the COPSOQ III questionnaire at baseline and 12 months
3. Role clarity, measured with the COPSOQ III questionnaire at baseline and 12 months
4. Influence, measured with the COPSOQ III questionnaire at baseline and 12 months
5. Psychosocial safety climate, questionnaire at baseline and 12 months
6. Team effectiveness, questionnaire at baseline and 12 months

### **Overall study start date**

01/01/2018

### **Completion date**

31/12/2021

## **Eligibility**

### **Key inclusion criteria**

1. Working in the recruited organisation at the time of recruitment and the follow-up endpoint
2. Age 18-65

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

Mixed

### **Age group**

Adult

### **Lower age limit**

18 Years

**Upper age limit**

65 Years

**Sex**

Both

**Target number of participants**

Intervention group = 366 Control group =472

**Total final enrolment**

634

**Key exclusion criteria**

1. Regional manager
2. District managers

**Date of first enrolment**

31/05/2019

**Date of final enrolment**

31/12/2021

## **Locations**

**Countries of recruitment**

Sweden

**Study participating centre**

Institute of environmental medicine Karolinska Institutet

Gothenburg

Sweden

41250

## **Sponsor information**

**Organisation**

Karolinska Institute

**Sponsor details**

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**Sponsor type**

University/education

**Website**

<https://ki.se/imm>

**ROR**

<https://ror.org/056d84691>

## **Funder(s)**

**Funder type**

Industry

**Funder Name**

AFA Försäkring

**Alternative Name(s)**

AFA Insurance

**Funding Body Type**

Private sector organisation

**Funding Body Subtype**

For-profit companies (industry)

**Location**

Sweden

## **Results and Publications**

**Publication and dissemination plan**

Publication and dissemination plan

1. Scientific publications (protocol and papers)

2. Conference presentations

3. Dissemination within the construction company is ongoing and will develop further when we know more about the results.

**Intention to publish date**

30/06/2022

**Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol article</a>	protocol	30/03/2020	02/04/2020	Yes	No
<a href="#">Results article</a>		23/09/2022	11/10/2022	Yes	No