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# Participation of Industrial workers in a Physical and Psychosocial Intervention (PIPPI)

**Submission date**
18/06/2013

**Recruitment status**
No longer recruiting

**Registration date**
10/07/2013

**Overall study status**
Completed

**Last Edited**
09/12/2019

**Condition category**
Injury, Occupational Diseases, Poisoning

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

**Plain English summary of protocol**
Background and study aims
Studies have shown that need for recovery (a persons desire to be temporarily relieved from work stressors to replenish his or her resources) is related to work demands and resources among workers. In the short term, high work demands lead to an increased shortage of resources which is considered to enhance the need for recovery. In the long term, absence of recovery may lead to tiredness, exhaustion, loss of function and physical and mental problems. The accumulated tiredness from repeated insufficient recovery is associated with health problems, sick leave and work disability. Work ability is also associated with long term effects of insufficient need for recovery,
i.e., tiredness, reduced productivity, stress and burnout as well as future sickness absence and early retirement. Blue collar workers (people who perform manual labor) generally experience higher need for recovery, tiredness, reduced work ability and comparatively higher risk of early exit from the labor market. Thus, it is important to develop effective initiatives to reduce need for recovery and increase work ability among these workers to improve the balance between work demands and resources. However, research about these methods is scarce. Therefore, the present study aims to find out how well our method to improve the balance between demands and resources among industrial workers works.

Who can participate?
Workers from work teams belonging to selected departments mainly involved in manufacturing in industrial companies in Denmark will be offered participation in the study.

What does the study involve?
The study involves an audit to find out the existing resources in the companies. Various workshops will be conducted to train leaders and health and safety representatives for supporting and facilitating the study method. The working teams and later the individual workers will participate in sessions to discuss current work demands and resources (both physical and psychosocial), develop action plans and implement them to minimize demands and maximize the positive effects of the resources at work. The workers will be involved in collecting information for a broad effect and process evaluation. For these evaluations, information will be collected via questionnaire at the start, at the end of first year and at the end of second year and also via text messages each month. The information will also be collected via interviews at

different levels of organization, via observations during the activities and via organizational records and documents.

What are the possible benefits and risks of participating?
This activities will benefit the workers by improving their work resources and demands, potentially reducing need for recovery and improving work ability. This will also provide the team leaders with a systematic method to deal with work environment problems and improve the balance between demands and resources in the work team. This will benefit the participating organizations by providing them with the knowledge and training for performing these initiatives in the future. There are no known risks of participating in this study.

Where is the study run from?
The study is managed by a research group from The National Research Centre for the Working Environment in Copenhagen, Denmark.

When is the study starting and how long is it expected to run for?
This is a two-year study. The contact with work places and planning of the study method started in January 2013. In one of the companies, the organizational resources audit has started in May 2013 and the initial information collection will begin in June 2013. An identical procedure will be performed after approximately six months in a second company.

Who is funding the study?
This study is a part of a research grant from the Government (Satspulje grant), Denmark.

Who is the main contact?
Prof. Andreas Holtermann
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# Contact information

### Type(s)
Scientific

### Contact name
Dr Andreas Holtermann

### Contact details
National Research Centre for the Working Environment
Lersø Parkallé 105
Copenhagen
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# Additional identifiers

# Study information

### Scientific Title
Participation of Industrial workers in a Physical and Psychosocial Intervention (PIPPI): a randomized controlled trial

## Acronym
PIPPI

## Study objectives
Primary hypothesis: The intervention will reduce the need for recovery among industrial workers.
Secondary hypothesis: The intervention will improve the work ability among industrial workers.

## Ethics approval required
Old ethics approval format

## Ethics approval(s)
Ethical Committee for the Capital Region of Denmark, 12/02/2013, ref: H-2-2013-FSP13

## Primary study design
Interventional

## Study design
Two year wait-list cluster randomized controlled trial

## Study type(s)
Quality of life

## Health condition(s) or problem(s) studied
All workers with or without diseases and working in the participating teams in the industrial sectors.

## Interventions
This is a two-year waitlist randomized control study.
In the first year, the intervention group will receive the treatment while control group will receive treatment as usual. The intervention will be conducted at different levels of organization. At the organizational level, an audit of organizational resources will be carried out to map the existing resources in relation to the working environment and act upon initiatives not functioning as intended. At the leader level, workshops will be conducted to train leaders and health and safety representatives in supporting and facilitating the intervention activities, to provide these groups with knowledge about the main features of the intervention and to furnish them with an opportunity for learning by sharing the experiences about the progress of the intervention. At the group and individual level, participatory cognitive mapping sessions will be carried out, allowing team members to discuss current work demands and resources (both physical and psychosocial) and to develop action plans to minimize demands and maximize the positive effects of the resources. At all levels, the intervention will be implemented with the existing organization of work (e.g. by utilizing time already allotted for team meetings and leader-employee talks). The company will be provided with visual boards to aid the implementation of action plans. All levels of the company will work together in ensuring that corrective action is taken regarding imbalances between demands and resources uncovered during the intervention. If required, the assistance of an experienced consultant will be available to the teams for implementing action plans.
In the second year, control group will also receive the similar intervention (explain above) while the intervention group will voluntarily participate in the intervention.

## Intervention Type

Other

### Phase
Not Applicable

### Primary outcome(s)
1. Need for recovery measured at baseline and at first and second follow-up via questionnaire and also during each month via text messages.

### Key secondary outcome(s)
1. Work ability, quantitative productivity, perceived exertion, job satisfaction and sickness absence measured via questionnaire at first and second follow-up and via SMS every second month.
2. Work demands and resources, well-being, work commitment and engagement, burnout, intention to retire measured at first and second follow-up via questionnaire.

### Completion date
30/12/2018

## Eligibility

### Key inclusion criteria
1. Inclusion criteria for intervention: workers from work teams belonging to selected departments mainly involved in manufacturing in industrial companies in Denmark.
2. Inclusion criteria for the participation in scientific evaluation of study: Sign the informed consent, work for 20 hours/week or more.

### Participant type(s)
Patient

### Healthy volunteers allowed
No

### Age group
Adult

### Sex
All

### Total final enrolment
415

### Key exclusion criteria
No exclusion criteria for participating in the intervention activities.
Exclusion criteria for participation in scientific evaluation of study: Not fulfilling the abovementioned inclusion criteria.

### Date of first enrolment
01/01/2013

**Date of final enrolment**
01/01/2014

# Locations

**Countries of recruitment**
Denmark

**Study participating centre**
**National Research Centre for the Working Environment**
Lersø Parkallé 105
Copenhagen
Denmark
2100

# Sponsor information

**Organisation**
National Research Centre for the Working Environment (Denmark)

**ROR**
https://ror.org/03f61zm76

# Funder(s)

**Funder type**
Government

**Funder Name**
This study has been supported by the Danish Parliament (Satspuljen 2012; Nye Veje) grant number 17.21.02.60.

# Results and Publications

**Individual participant data (IPD) sharing plan**
The datasets generated during and/or analysed during the current study will be stored in a non-publically available repository Dansk data arkiv(https://www.sa.dk/brug-arkivet/danskdataarkiv/dda-dansk-data-arkiv) from 01/09/2017.

**IPD sharing plan summary**

Stored in repository

## Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Results article | results | 01/01/2018 | 09/12/2019 | Yes | No |