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The evaluation of the effect of self-governing home healthcare teams on the working environment of home healthcare workers

Submission date
11/07/2023

Recruitment status
No longer recruiting

Registration date
18/08/2023

Overall study status
Completed

Last Edited
27/03/2025

Condition category
Other

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

Plain English summary of protocol

Background and study aims
With an ageing population and longer life expectancy, demographic changes present a challenge for the welfare state. There is a high demand for home health care (HHC) workers who can remain active in the workforce. However, HHC work is physically demanding and exhausting, with high rates of pain and diminished health status among workers. This may contribute to high rates of sickness absence and early retirement.

Previous workplace health initiatives have not effectively addressed work-related musculoskeletal pain among HHC workers. The Goldilocks Work Principle has been proposed as an approach to redesigning work to promote health without compromising productivity. This approach focuses on modifying how and when workers perform tasks.

Researchers at the National Research Center of the Working Environment conducted a feasibility study using the Goldilocks Work principle to establish an equitable distribution of physical and psychosocial work demands among HHC workers in a Danish municipality. The results indicated improved distribution of work demands.

The Danish HHC sector is undergoing organizational changes, with many municipalities restructuring HHC workers into self-governing teams. The effects of self-governing teams on the health and working environment of HHC workers have yet to be evaluated. The National Research Center of the Working Environment aims to evaluate the effects of self-governing team structure on the working environment of HHC workers through a natural experiment.

The objective of this study is to evaluate differences in the working environment between self-governing teams and teams that are not self-governing.

Who can participate?
Employees participating in self-governing HHC-teams who consent to participation, and employees in the same municipal area who have not started using self-governing HHC-teams.

What does the study involve?
The participants will be asked to answer questionnaires addressing factors related to work and health as well as wear an accelerometer physical behaviour sensor for five consecutive weekdays.

What are the possible benefits and risks of participating?
Participants and their workplaces will receive an in-depth evaluation of their teams working environment. This could be used to support the wider implementation of self-governing teams in the future.
Risks in participating are minimal. Participants with sensitivity to plasters may have a reaction to the attachment of the physical behaviour sensor and all participants will be informed to immediately remove the sensor if a sensitivity occurs.

Where is the study run from?
National Research Centre for the Working Environment (Denmark)

When is the study starting and how long is it expected to run for?
January 2023 to January 2024

Who is funding the study?
The Danish Government through a grant to the FOR-SOSU program (SATS 2004)

Who is the main contact?
Kathrine Schmidt, kgs@nfa.dk
Laura Downs Tuck, LTCK@novonordisk.com

Contact information

Type(s)
Principal investigator

Contact name
Miss Kathrine Schmidt

ORCID ID
https://orcid.org/0000-0001-8400-8349

Contact details
The National Research Centre for the Working Environment
Lersø Parkallé 105
Copenhagen
Denmark
2100
+45 (0)2934 0263
kgs@nfa.dk

Type(s)
Scientific

Contact name
Miss Laura Grace Downs Tuck

Contact details
Lersø Parkalle 105
Copenhagen
Denmark
2100
+45 (0)34 48 91 71
LTCK@novonordisk.com

Additional identifiers

Study information

Scientific Title
Evaluating the effect of self-governing home healthcare teams on the working environment of home healthcare workers: a quasi-experimental post-test only evaluation of a natural experiment

Study objectives
The implementation of self-governing teams reduces pain intensity among home healthcare (HHC) workers.

Ethics approval required
Ethics approval not required

Ethics approval(s)
The Danish National Committee on Biomedical Research Ethics (The local ethical committee of Frederiksberg and Copenhagen) has evaluated a description of the study and concluded that, according to Danish law as defined in Committee Act § 2 and § 1, the intervention described should not be further reported to the local ethics committee (Ref number: F-23031959).

Primary study design
Observational

Study design
Quasi-experimental post-test only evaluation of a natural experiment (utilising a case-control recruitment strategy)

Study type(s)
Quality of life

Health condition(s) or problem(s) studied
Evaluating the effect of self-governing home healthcare teams on the working environment of home healthcare workers

Interventions
No intervention will be delivered in this study as it is a natural experiment evaluating the difference in home healthcare (HHC)-workers' musculoskeletal pain and inter-individual differences in physical behaviour among team members thus reducing their sickness absence. Participating municipalities will be included in the evaluation and provide at least one self-governed HHC team (intervention group) and one team that is not self-governing (control group).

The evaluation of the natural experiment involves a single measurement time-point of the working environment. At the time of evaluation, participants will receive an electronic questionnaire (10-15 minutes), with questions concerning demographics, musculoskeletal pain, sickness absence, perceived influence, perceived stress, finding meaning in work, interpersonal work relationships, well-being, burn-out, need for recovery, physical exertion, and productivity. Participants will also wear an accelerometer for five consecutive weekdays, which will map their physical behaviours. Furthermore, interviews with relevant stakeholders will be conducted to explore participants' experiences of the distribution of citizens among workers, citizen continuity and collaboration with other team members. Those in the intervention group will have additional questions assessing the fidelity and acceptability of self-governing teams.

The individual participants will receive a report outlining their physical behaviour and the HHC-institutions will receive an in-depth report of their working environment.

Intervention Type
Behavioural

Primary outcome(s)
Lower back pain intensity scores and duration, measured using the Standardised Nordic questionnaire for the analysis of musculoskeletal pain at single time point

Key secondary outcome(s)
Measured at a single time point unless noted otherwise:
1. Inter-individual physical behaviour between team members measured by accelerometer data collected over 5 consecutive days
2. Levels of sickness absence, measured using a validated question about number of sick days (0-28) within the past month
3. Perceived stress, measured using the Danish Psychosocial Questionnaire and the Perceived Stress Scale
4. Shoulder and neck pain intensity and duration, measured using the Standardised Nordic questionnaire for the analysis of musculoskeletal pain
5. Productivity, measured using The World Health Organization Health and Work Performance Questionnaire

Completion date
31/01/2024

Eligibility

Key inclusion criteria
Employees participating in self-governing HHC-teams who consent to participation. Self-governing HHC-teams are defined as small teams (max. 12 HHC-workers) who participate in the planning of work schedules as a group, and who have regular interdisciplinary meetings that include a needs assessor and nursing staff. These teams must be working during daytime shifts and need to have gone live with self-governing teams for a minimum of 6 months.
Teams within the same municipality as an included self-governing team, that do not fulfil the above criteria and have not gone live with self-governing HHC-teams can be included as a control group.

Participant type(s)

Health professional

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
67 Years

Sex
All

Total final enrolment
125

Key exclusion criteria
Teams that have gone live with self-governing teams for less than 6 months

Date of first enrolment
14/08/2023

Date of final enrolment
31/08/2023

Locations

Countries of recruitment
Denmark

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

Sponsor information

Organisation
National Research Centre for the Working Environment

ROR
https://ror.org/03f61zm76

Funder(s)

Funder type
Government

Funder Name
The Danish Government through a grant to the FOR-SOSU program (SATS 2004)

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and analysed during the current study are not expected to be made available due to protection of participants' identity. Additionally, participants have not provided written consent for the sharing of data with third parties.

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		17/03/2025	27/03/2025	Yes	No