

# Effects of a work-related stress model based mental health promotion program on job stress, stress reactions and coping profiles of women workers

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<b>Registration date</b> 03/10/2020	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 26/01/2021	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Work-related stress and its detrimental effects on human health have rapidly increased during the past several years. It causes many different stress reactions, related diseases and unhealthy behavior among workers, but especially women workers. Thus, the aim of this study is to examine the effects of the Workplace Mental Health Promotion Programme on job stress, social support, reactions, saliva immunoglobulin A and cortisol levels, work absenteeism, job performance and coping profiles of women workers.

### Who can participate?

Women workers aged over 18 with a higher level of work-related stress

### What does the study involve?

The programme was carried once to the intervention group (35 women workers) in factory A at 9 am by the first researcher. A visual presentation and video training are provided, and a digital camera is used to video record workers while they were practising the programme, which consists of stress management techniques, effective coping skills, and relaxation exercises. The programme also provides definitions for and explanations of stress and work-related stress, stress physiology, stress reactions, stress-related diseases, stress-related factors and effective coping and stress management skills, relaxation exercises, and deep breathing techniques. In the context of coping with stress, these exercises are taught, along with correct abdominal deep breathing skills, to the intervention group. During this interactive training, the work-related stress factors are defined and discussed interactively and in detail with the workers, who offer examples from their work experiences. During the training, the exercises are practised as a group and video recorded. The training lesson lasts 45 minutes and takes place in a meeting room at the workplace. After the training, a brochure explaining the content and process of the programme and a video describing the exercises are given to the workers. The exercise times (10:00 am, 1:00 pm, and 4:00 pm) are organized in cooperation with the workers, supervisors, and administrators while considering the employees' work schedules. This is followed by direct

observation, a weekly self-reported checklist, and recording with a factory-fixed camera for 12 weeks. The mobile phone application WhatsApp is used to send reminder messages and videos to the participants to reinforce the training during the follow-up stage. The effects of the programme are assessed in the first and third months in both groups, but saliva immunoglobulin A and cortisol levels are assessed only in the intervention group before and just after the intervention.

What are the possible benefits and risks of participating?

The possible benefits of participating are improved coping skills, stress management, and mental health.

Where is the study run from?

Akademi Tekstil Factory (Turkey)

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

February 2014 to May 2016

Who is funding the study?

Istanbul University (Turkey)

Who is the main contact?

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## Contact information

**Type(s)**

Scientific

**Contact name**

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## Additional identifiers

**Clinical Trials Information System (CTIS)**

Nil known

**Protocol serial number**

50902

## Study information

**Scientific Title**

Effects of a work-related stress model based mental health promotion program on job stress, stress reactions and coping profiles of women workers: a control groups study

**Study objectives**

Compared to those who do not participate in the Work-ProMentH intervention, workers who do participate in the program will have decreased job stress, less severe physical and mental stress reactions, lower S-cortisol levels, less job absenteeism, increased S-IgA levels, more social support, better job performance, and improved coping profiles.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Approved 28/11/2014, Ethical Committee of Istanbul Medipol University (Kavacik mah, Ekinciler cad, No:19, 34810 Beykoz/Istanbul; +90 (0)2166815137; ilknurfil@medipol.edu.tr), ref: 10840098-299

**Study design**

Pre-test–post-test non-equivalent control group design

**Primary study design**

Interventional

**Study type(s)**

Other

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

Mental health problems

**Interventions**

The aim of this study, which features a pre-test–post-test non-equivalent control group design, is to examine the effects of the WRS model-based Work-ProMentH on women workers' job stress, physical and mental reactions, social support, coping profiles, work absenteeism, job performance, and salivary IgA (S-IgA) and cortisol (S-cortisol) levels. The research is carried out in two textile factories (A and B) since the intervention is considered to affect workers in the same factory. Factory B is defined as a subcomponent and partner of factory A. The factories mainly manufacture knitwear and export it abroad. Both factories have demonstrated adherence to the laws and regulations on occupational health and common international inspections. The factories also have the same occupational health physician and nurse. Additionally, the first researcher voluntarily worked two hours per week for more than a year before the study began to observe the work process, working conditions, and work environments

The study examined five measurements that were selected and developed by researchers based on the components (Risks for work-related stress, Stress reactions, Stress long-term

consequences, Individuals characteristics) of the causes and consequences in the WRS model to evaluate stress, stress reactions, long-term stress responses, and coping profiles. The risks for the work-related stress component of the model were measured by the brief job stress questionnaire and the assessment form; stress reactions were measured by the brief job stress questionnaire and salivary-specific ELISA kits; individual characteristics were measured by the Brief Stress Coping Profile scale and the assessment form; and stress long-term consequences were measured by the performance questionnaire, formal, digital factory input and output card and checklist.

1. The Descriptive Workers Assessment Form

2. The Brief Job Stress Questionnaire (BJSQ)

3. The Brief Stress Coping Profile (BSCP)

4. Salivary-specific ELISA kits that are lucent and have a cover were used to evaluate cortisol and IgA levels in every participant's saliva. When saliva is collected with the kit, it should be covered carefully and saved in a portable freeze at +4°, and it has to be transferred to a laboratory with an International Accreditation. The analyses were conducted at baseline (at 08:45 am, February) and just after the IG intervention (at 10:15 am, February) in the morning. The eligibility criteria for collecting saliva-cortisol and saliva-IgA are as follows: there should not be any blood contamination from the mouth, there should not be any medication that affects cortisol used in the last week, and there should not be anything eaten 30 minutes before saliva collection.

5. The work absenteeism of all participants was checked through formal digital factory timecards and self-reported checklists. The absenteeism duration was calculated based on hours.

#### Workplace Mental Health Promotion Program Intervention

The Work-ProMentH is a health-promotion programme based on the WRS model. Before the Work-ProMentH intervention, the approval and follow-up procedures of the factories' administration were explained to the IG and verified. The programme was applied once to the IG (35 women workers) at baseline in factory A at 9 am by the first researcher. A visual presentation and video training were provided, and a digital camera was used to video record workers while they were practising the programme, which consisted of stress management techniques, effective coping skills, and relaxation exercises. The programme also provided definitions for and explanations of stress and WRS, stress physiology, stress reactions, stress-related diseases, stress-related factors and effective coping and stress management skills, relaxation exercises, and deep breathing techniques. In the context of coping with stress, these exercises were taught, along with correct abdominal deep breathing skills, to the IG. During this interactive training, the WRS factors were defined and discussed interactively and in detail with the workers, who offered examples from their work experiences. During the training, the exercises were practised as a group and video recorded. The training lesson lasted 45 minutes and took place in a meeting room at the workplace. After the training, a brochure explaining the content and process of the programme and a video describing the exercises were given to the workers. The exercise times (10:00 a.m., 1:00 p.m., and 4:00 p.m.) were organized in cooperation with the workers, supervisors, and administrators while considering the employees' work schedules. This was followed by direct observation, a weekly self-reported checklist, and recording via a factory-fixed camera for 12 weeks. The mobile phone application WhatsApp was used to send reminder messages and videos to the participants to reinforce the training during the follow-up stage. The effects of the programme were assessed in the first and third months in both groups, but S-IgA and S-cortisol levels were assessed only in the IG before and just after the intervention

#### Intervention Type

Behavioural

#### Primary outcome(s)

1. Perceived job performance measured using the Descriptive Workers Assessment Form concerns at baseline, 1 month and 3 months
2. Job stress, stress reactions (physical and mental), and social support measured using the Brief Job Stress Questionnaire (BJSQ) at baseline, 1 month and 3 months
3. Coping profiles measured using the Brief Stress Coping Profile (BSCP) at baseline, 1 month and 3 months
4. Cortisol and IgA levels measured using Salivary-specific ELISA kits at baseline, and just after the intervention.
5. The work absenteeism measured using formal digital factory timecards and self-reported checklists at baseline, 1 month and 3 months

**Key secondary outcome(s)**

There are no secondary outcome measures

**Completion date**

02/05/2016

## Eligibility

**Key inclusion criteria**

1. A job-stress subscale score above the median (med: 45), indicating a higher level of WRS
2. No use of any medication that has effects on cortisol and IgA

**Participant type(s)**

Healthy volunteer

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

Female

**Total final enrolment**

70

**Key exclusion criteria**

1. Use of any medication that affects salivary cortisol and/or IgA levels
2. Age under 18 years
3. Diagnosed psychiatric health problems
4. Illiteracy

**Date of first enrolment**

01/02/2016

**Date of final enrolment**

30/03/2016

# Locations

## Countries of recruitment

Türkiye

## Study participating centre

### A+B factories

Başakşehir

Istanbul

Türkiye

34400

# Sponsor information

## Organisation

Istanbul University

## ROR

<https://ror.org/03a5qrr21>

# Funder(s)

## Funder type

University/education

## Funder Name

Istanbul Üniversitesi (Project No: 50902)

## Alternative Name(s)

Istanbul University

## Funding Body Type

Private sector organisation

## Funding Body Subtype

Universities (academic only)

## Location

Türkiye

# Results and Publications

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Ozlem Koseoglu Ornek (Ozlem.koseoglu62@gmail.com).

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	04/11/2020	26/01/2021	Yes	No