ISRCTN13067220 https://doi.org/10.1186/ISRCTN13067220

Prospective study of lifestyle behaviour in Austrian soldiers

Submission date
18/09/2025

Recruitment status
No longer recruiting

Registration date
19/09/2025

Overall study status
Completed

Last Edited
17/12/2025

Condition category
Other

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

Plain English summary of protocol

Background and study aims
Obesity is a growing health problem worldwide, affecting both civilians and soldiers. Military service can sometimes lead to unhealthy habits, like poor eating or more smoking. The study aimed to see how Austrian conscripts' lifestyle and body composition (weight, body fat, nutrition habits) change during mandatory service, and whether an educational program could prevent negative effects.

Who can participate?
Male Austrian citizens, aged 18 and above, who were drafted into mandatory military service and assigned to a Guards regiment. Men with serious chronic health problems were already excluded by the army before service. Women were not included, since mandatory service in Austria only applies to men.

What does the study involve?
Two companies of soldiers were randomly split into an intervention group and a control group. The intervention group received 15 hours of lifestyle education during duty hours in their first month. Topics included healthy nutrition, exercise, smoking, alcohol, stress, and practical guidance on choosing food in the army canteen.
Measurements (weight, body fat, nutrition knowledge, diet quality) were taken at the start, after 3 months, and at the end of service (6 months).
Both groups filled out questionnaires about eating habits, nutrition knowledge, and smoking.

What are the possible benefits and risks of participating?
Benefits: Participants in the intervention group gained knowledge on healthy habits, which helped them maintain better diet quality and less body fat gain during service.
Risks: No major risks were reported. Some small risks included minor inconvenience from measurements or time spent in extra sessions.

Where is the study run from?
The study was conducted in two companies of a Guards regiment in the Austrian Armed Forces. The research was coordinated by the Medical University of Vienna and the Austrian Academic Institute of Clinical Nutrition.

When is the study starting and how long is it expected to run for?
September 2015 to November 2016

Who is funding the study?
The study was funded by the Austrian Ministry of Defence and Sports (grant number E90053/100/0-KA/2015).

Who is the main contact?
helk@oeaie.org

Contact information

Type(s)
Public, Scientific, Principal investigator

Contact name
Dr Oliver Helk

ORCID ID
https://orcid.org/0000-0003-1244-0751

Contact details
Alserstraße 14/4a
Vienna
Austria
1090
+43 1 4026472
helk@oeaie.org

Additional identifiers

Clinical Trials Information System (CTIS)
2015-002941-75

Study information

Scientific Title
Prospective study of lifestyle behaviour in Austrian soldiers

Acronym
PROSOLAS

Study objectives
A standardized lifestyle intervention prevents body fat gain in Austrian conscripts compared to untreated controls

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 09/09/2015, Ethics committee of the Austrian Armed Forces (Schwenkgasse 47, Vienna, 1120, Austria; +43/50 201-10 27705; bundesheer.w@bmlvs.at), ref: EK042/S93858

Primary study design
Interventional

Study design
Single-center prospective interventional cluster-randomized controlled study

Study type(s)
Prevention, Other

Health condition(s) or problem(s) studied
Prevention of adverse lifestyle behaviour and body fat gain in Austrian conscripts

Interventions
Upon completion of the baseline assessments, all subjects in the intervention group receive a standardized nutritional- and lifestyle intervention in the form of educational sessions on the topics of healthy nutrition, physical activity, smoking and alcohol consumption delivered by healthcare professionals. The participants in the intervention group also receive practical advice on how to navigate the army canteen and are trained to correctly identify healthy food choices in two of these sessions. Furthermore, the subjects in the intervention group receive a session on resilience. In total, 15 one-hour long group-sessions are delivered. The lessons are delivered by a medical doctor with a post-graduate diploma in nutrition medicine, developed in close cooperation with nutritional scientists and reviewed by psychologists. Topics that are discussed include:
• Micro- and macronutrients and their physiological roles
• The importance of physical activity
• The dangers of smoking and alcohol
• Practical guidance on how to choose healthy snacks
• Health-related consequences of poor nutrition
• Ideal food choices to fulfil macro- and micronutrient requirements
• The effects of psychological stress on nutrition habits and how to handle stress

No intervention is performed in the control group, however, assessments of body composition and eating habits are performed at baseline and at a 6 months follow up following the same procedures as with the intervention group.

Intervention Type
Behavioural

Primary outcome(s)
Body fat percentage measured using bioimpedance analysis at baseline and 6 months follow up

Key secondary outcome(s)
Nutrition quality measured using the alternate healthy eating index at baseline and follow up

Completion date
30/11/2016

Eligibility

Key inclusion criteria
1. Willingness and ability to provide informed consent
2. General well-being
3. Positive screening for eligibility for service in Austrian Guards regiment

Participant type(s)
Healthy volunteer, Other

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
35 Years

Sex
Male

Total final enrolment
403

Key exclusion criteria
1. Inability or unsuitability to undergo mandatory service for any reason
2. Transferal to barracks outside of Vienna over the course of the mandatory service

Date of first enrolment
01/10/2015

Date of final enrolment
03/10/2015

Locations

Countries of recruitment
Austria

Study participating centre
Austrian Academic Institute for Clinical Nutrition
Alserstraße 14/4a

Vienna
Austria
1090

Sponsor information

Organisation
Bundesministerium für Landesverteidigung (Federal Ministry of Defence)

Funder(s)

Funder type
Government

Funder Name
Bundesministerium für Landesverteidigung (Federal Ministry of Defence)

Results and Publications

Individual participant data (IPD) sharing plan

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		16/12/2025	17/12/2025	Yes	No