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A digital intervention aiming to help university students change their procrastination behaviour

Submission date
26/01/2023

Recruitment status
No longer recruiting

Registration date
03/02/2023

Overall study status
Completed

Last Edited
28/01/2025

Condition category
Other

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

Plain English summary of protocol
Background and study aims
The concept of procrastination can be described as a conscious, yet irrational, postponement of important tasks or decisions - despite awareness that the delay may lead to negative consequences. Procrastination behaviours are common among university students and are often described as a failure of self-regulation, and the behaviour is associated with stress, symptoms of depression and anxiety, poorer academic performance, and negative effects on overall health and wellbeing.
The primary aim of this study is to estimate the effects of a brief digital procrastination intervention on procrastination behaviours among university students in Sweden. Secondary aims include the estimation of the effects of the intervention on anxiety and stress symptoms, as well as lifestyle behaviours.

Who can participate?
University students at participating colleges and universities in Sweden scoring 20 points or more on the Pure Procrastination Scale (PPS)

What does the study involve?
The Focus intervention is a digital procrastination intervention which consists of a screening and feedback component, allowing participants to assess their current procrastination behaviours and receive behaviour change advice. The intervention is designed with inspiration from both previous research on procrastination treatment programs using internet-based cognitive behavioural therapy (iCBT), and on the concept of brief alcohol interventions, which have been widely researched among university students in Sweden.
Participants are randomly allocated to one of two groups. Participants allocated to the control group will be shown their total score on the Pure Procrastination Scale (PPS), with the minimum and maximum on the scale presented, and a recommendation to read more about procrastination at their local student health care website. Participants allocated to the intervention group will be given the same information as the control group, but also be given access to the novel Focus intervention. The primary outcome will be procrastination behaviour measured after 2 months. Secondary outcomes will be anxiety and stress symptoms and lifestyle behaviours.

What are the possible benefits and risks of participating?
The intervention is developed to help university students change their procrastination behaviour, and such change has both short- and long-term benefits. Procrastinating affects both physical and mental health negatively and can involve both stress and lack of recovery, or a risk of alcohol consumption or tobacco use as a strategy for 'recovery' and anxiety reduction. Procrastination might also out-compete good health habits such as sleep hygiene, regular physical activity or healthy eating habits, due to high level of stress and loss of control. By stopping postponing important commitments students increase the chance of succeeding with their studies, and decrease the risk of mental illness such as depression, exhaustion and anxiety-related problems, or study-related consequences such as losing study funds with the risk of far-reaching financial problems.
Students who choose to participate in the study do so largely because they want help and support to change their procrastination behaviour - however, no support is promised upon invitation to the study, only an invitation to take a test. The researchers believe that the largest risk participants expose themselves to by participating in the study is that the intervention would prove ineffective or harmful. Such an outcome can from the individual's perspective be seen as a failure, leading to losing trust in being able to change. Changing one's procrastination behaviour might also be both physically and mentally exhausting in the short term. For example, postponement/procrastination can be an avoidance strategy to avoid coping with situations or tasks that evoke negative feelings such as inadequacy, indecision, boredom or anxiety and dealing with these feelings can be a demanding process that evokes an increased individual level of stress.

Where is the study run from?
Linköping University (Sweden)

When is the study starting and how long is it expected to run for?
April 2022 to December 2023

Who is funding the study?
Swedish Research Council for Health, Working Life, and Welfare (Sweden)

Who is the main contact?
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Contact information

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Scientific

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Additional identifiers

Protocol serial number
1.0

Study information

Scientific Title
Evaluating the effectiveness of a brief digital procrastination intervention targeting university students in Sweden: a randomized controlled trial

Acronym
FOCUS

Study objectives
The primary aim is to estimate the effects of a brief digital procrastination intervention on procrastination behaviours among university students in Sweden. Secondary aims include estimation of the effects of the intervention on anxiety and stress symptoms, as well as lifestyle behaviours. The study objectives are to:
1. Estimate the effects of a brief digital procrastination intervention on procrastination behaviours.
2. Estimate the effects of a brief digital procrastination intervention on anxiety and stress symptoms.
3. Estimate the effects of a brief digital procrastination intervention on alcohol consumption, intake of candy and snacks, sugary drinks, and physical activity.
4. Investigate acceptability, perceived usefulness, and general opinions of the intervention in terms of user experiences.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 24/08/2022, Swedish Ethical Review Authority (Etikprövningsmyndigheten, Box 2110, 750 02 Uppsala, Sweden; +46 (0)10-475 08 00; registrator@etikprovning.se), ref: 2022-00353

Primary study design
Interventional

Study design
Randomized control trial

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Procrastination behaviour

Interventions
The Focus intervention is a digital procrastination intervention which consists of a screening and feedback component, allowing participants to assess their current procrastination behaviours and receive behaviour change advice. The intervention is designed with inspiration from both previous research on procrastination treatment programs using internet-based cognitive behavioural therapy (iCBT), and on the concept of brief alcohol interventions, which have been widely researched among university students in Sweden.

Participants will be randomized using block randomization (with random block sizes of 2 and 4). The randomization sequence will be computer generated, and neither research personnel nor participants will be able to manipulate the sequence. As all study procedures are automated, thus randomization cannot be subverted.

Participants allocated to the control group will be shown their total score on the Pure Procrastination Scale (PPS), with the minimum and maximum on the scale presented, and a recommendation to read more about procrastination at their local student health care website.

Participants allocated to the intervention group will be given the same information as the control group, but also be given access to the novel Focus intervention.

Intervention Type
Behavioural

Primary outcome(s)
Procrastination behaviour will be assessed using the PPS 12-item Pure Procrastination Scale at 2 months post-baseline

Key secondary outcome(s)
Assessed at 2 months post-baseline:
1. Anxiety assessed using the seven-item Generalised Anxiety Disorder scale (GAD-7)
2. Perceived stress assessed using the four-item short-form perceived stress scale (PSS-4)
3. Weekly alcohol consumption assessed by asking participants the number of standard drinks of

alcohol they consumed last week (short-term recall method)
4. Monthly frequency of heavy episodic drinking assessed by asking participants how many times they have consumed four or more standard drinks of alcohol on one occasion in the past month
5. Diet and physical activity measured utilising a questionnaire based on the previously published questionnaire designed by the National Board of Health and Welfare in Sweden and further modified to also include portion sizes:
5.1. Weekly consumption of sugary drinks measured by a question regarding the number of units (33 cl) of sugary drinks participants consumed the past week
5.2. Weekly consumption of candy and snacks measured using a single question regarding the number of servings consumed last week
5.3. Weekly moderate to vigorous physical activity (MVPA) estimated by summing responses to two questions regarding the number of minutes spent on moderate and vigorous physical activity, respectively, during the past week

Completion date
31/12/2023

Eligibility

Key inclusion criteria
1. University students at participating colleges and universities in Sweden
2. Scoring 20 points or more on the Pure Procrastination Scale (PPS)
3. As the survey will be conducted in Swedish, students not familiar with the Swedish language will be implicitly excluded

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Total final enrolment
2209

Key exclusion criteria
Does not meet the inclusion criteria

Date of first enrolment
05/02/2023

Date of final enrolment
31/03/2023

Locations

Countries of recruitment
Sweden

Study participating centre
Linköping University
Linköpings Universitet
Linköping
Sweden
581 83

Sponsor information

Organisation
Linköping University

ROR
https://ror.org/05ynxx418

Funder(s)

Funder type
Research council

Funder Name
Forskningsrådet om Hälsa, Arbetsliv och Välfärd

Alternative Name(s)
Swedish Research Council for Health, Working Life and Welfare, Forskningsrådet om Hälsa, Arbetsliv och Välfärd, FORTE

Funding Body Type
Government organisation

Funding Body Subtype
Local government

Location
Sweden

Results and Publications

Individual participant data (IPD) sharing plan

Deidentified datasets generated during and/or analysed during the current study will be made available upon reasonable request to Linköping University (info@liu.se), after approval of a proposal and with a signed data access agreement.
The type of data that will be shared: Anonymized individual-level data
Dates of availability: From 2025
Whether consent from participants was required and obtained: Consent was obtained from all participants
Comments on data anonymization: Data will be anonymized after the study ends
Any ethical or legal restrictions: Ethical approval and data sharing agreement is required before accessing data

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		08/04/2024	28/01/2025	Yes	No
Protocol article		21/07/2023	24/07/2023	Yes	No