

Reconnected: a personalized digital mental health support system for young people in Denmark

Submission date 11/09/2026	Recruitment status Not yet recruiting	☒ Prospectively registered ☐ Protocol
Registration date 16/09/2026	Overall study status Ongoing	☐ Statistical analysis plan ☐ Results
Last Edited 15/09/2026	Condition category Mental and Behavioural Disorders	☐ Individual participant data ☒ Record updated in last year

Plain English summary of protocol

Background and study aims

Growing up today comes with a lot of pressure — social media, worries about climate change, world events, and the stress of moving into adulthood. This study tests a digital support tool called RECONNECTED, which is designed to help improve the mental wellbeing of young people in Denmark. The tool has three parts: information about mental health, short exercises for coping with everyday stress, and support for getting involved in social activities. For some participants, the exercises are personalised by a computer program rather than being the same for everyone. The aim of the study is to find out whether adding the exercises and/or the social support to the basic information makes a real difference to young people's wellbeing and mental resilience, and whether the computer-personalised exercises work better than the standard version.

Who can participate?

Young people aged 16 to 25 years who live in Denmark, have access to a smartphone or computer with an internet connection, understand Danish, and are not currently thriving mentally (based on a short questionnaire) can take part.

People cannot take part if they: are already thriving mentally according to the questionnaire; have a serious mental illness (such as psychosis, bipolar disorder, or severe depression that has needed hospital treatment); are currently having psychological or psychiatric treatment, or started a new prescribed mental health medication in the last 4 weeks; or are unable or unwilling to use the app and complete the study questionnaires.

What does the study involve?

Participants who join are randomly placed (like drawing lots, done by a computer) into one of six groups. Everyone gets the basic mental-health-information part of the tool. Depending on their group, some participants also get short daily exercises, some get help finding social activities, and some get both. Among those who get the exercises, half are randomly given a version where a computer program personalises which exercises are suggested to them, and half get the same exercises without this personalisation.

Participants are encouraged, but not required, to use the tool for about 6 weeks. They fill in online questionnaires about their mental wellbeing and related topics before starting, and again after 6 weeks, 3 months, and 6 months. Some participants may also be invited to take part in an optional follow-up interview. After the 6-month questionnaires, everyone is given access to the full tool, including any parts they weren't originally given.

What are the possible benefits and risks of participating?

Taking part gives free access to a digital mental health support tool that may help participants learn more about their mental health, build coping skills, and/or become more socially active. Participants are paid 100 DKK for completing each set of questionnaires, up to a maximum of 400 DKK.

This is a digital, non-clinical intervention and the risk is considered low. As with any study that asks about mental health, some people might find certain questions bring up difficult feelings. The research team monitors responses for signs of worsening symptoms or suicidal thoughts, and will contact anyone who shows warning signs to check on them and offer information about support services. People already at high risk (for example, currently at risk of suicide or in intensive psychiatric care) are not included in the study. All personal data are stored securely and in line with Danish and EU data protection rules (GDPR).

Where is the study run from?

The study is run from the Department of Psychology and Behavioural Sciences, Aarhus University (Denmark). Because the intervention is fully digital, participants can take part from anywhere in Denmark using their own smartphone or computer.

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

Recruitment is expected to start in October 2026. Each participant is followed for 6 months after joining, so if recruitment runs for several months, the study as a whole is expected to run for approximately one year in total, with final data collection expected to conclude around October 2027.

Who is funding the study?

The study is part of the RECONNECTED project, funded by the European Union's Horizon Europe research and innovation programme (grant agreement No. 101081020).

Who is the main contact?

Kim Mathiasen, Department of Psychology and Behavioural Sciences, Aarhus University, km@psy.au.dk

Contact information

Type(s)

Principal investigator, Scientific, Public

Contact name

Dr Kim Mathiasen

ORCID ID

<https://orcid.org/0000-0001-6067-8866>

Contact details

Dept. of Psychology and Behavioural Sciences
Aarhus
Denmark
8000
+45 (0)61677747
km@psy.au.dk

Additional identifiers

Study information

Scientific Title

Reconnected: a personalized digital mental health support system for young people in Denmark

Acronym

ReConnected DK

Study objectives

Research questions or hypotheses:

H1: Adding personalised micro-interventions to mental health literacy education will result in greater improvement in mental wellbeing (MHC-SF) from baseline to 6 weeks compared with mental health literacy education alone.

H2: Adding social prescribing to mental health literacy education will result in greater improvement in mental wellbeing (MHC-SF) from baseline to 6 weeks compared with mental health literacy education alone.

H3: The effect of personalised micro-interventions on mental wellbeing will differ depending on whether social prescribing is also provided, indicating a two-way interaction between the two components.

H4: Among participants receiving micro-interventions, those supported by the machine learning algorithm will demonstrate greater improvement in mental wellbeing (MHC-SF) from baseline to 6 weeks compared with those receiving the standard version.

Ethics approval required

Ethics approval not required

Ethics approval(s)

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Open (masking not used)

Control

Active

Assignment

Factorial

Purpose

Prevention

Study type(s)

Health condition(s) or problem(s) studied

Mental health

Interventions

The RECONNECTED support system integrates three components:

1. Mental health literacy, covering knowledge about mental health, stigma, and help-seeking
2. Personalised micro-interventions, consisting of brief exercises targeting wellbeing and resilience mechanisms drawn from evidence-based psychological approaches
3. Social prescribing, supporting participants in identifying and engaging with meaningful social activities

In the machine learning enhanced condition, an algorithm adapts content delivery based on engagement patterns and self-assessment data.

The study is a 2×2 factorial randomised controlled trial (RCT). All participants receive a mental health literacy component, which serves as the reference condition. Based on randomisation, participants additionally receive access to personalised micro-interventions, social prescribing, or both. Participants allocated to a micro-intervention condition are further randomised to either a standard version or a machine learning-supported version of the micro-interventions. This yields six experimental conditions in total. Randomisation is conducted at the individual level via CASTOR (an electronic database and randomisation tool for RCTs by the company CASTOR), with variable block sizes and an allocation ratio of 2:2:1:1:1:1.

Intervention Type

Behavioural

Primary outcome(s)

1. Mental well-being measured using Mental Health Continuum–Short Form (MHC-SF) at baseline (t0), 6 weeks (t1), 3 months (t2), and 6 months (t3)

Key secondary outcome(s)

Completion date

01/09/2027

Eligibility

Key inclusion criteria

1. Aged 16–25 years
2. Residency in Denmark
3. Access to a smartphone or computer with internet connection
4. Non-flourishing mental wellbeing on the Mental Health Continuum–Short Form (MHC-SF), defined as responses of "never" or "once or twice" on at least 7 of the 14 items including at least

one item from the emotional wellbeing domain

5. Provision of informed consent

Healthy volunteers allowed

Yes

Age group

Mixed

Lower age limit

16 Years

Upper age limit

25 Years

Sex

All

Total final enrolment

0

Key exclusion criteria

1. Flourishing mental wellbeing on the MHC-SF
2. Self-reported severe mental illness (schizophrenia, bipolar disorder, psychosis, or severe depression with prior hospitalisation)
3. Current psychological or psychiatric treatment or recent initiation of prescribed psychotropic medication within the past 4 weeks
4. Inability or unwillingness to engage with the digital intervention and complete study assessments
5. Insufficient Danish language comprehension to provide informed consent

Date of first enrolment

21/09/2026

Date of final enrolment

01/02/2027

Locations

Countries of recruitment

Denmark

Sponsor information

Organisation

Aarhus University

ROR

<https://ror.org/01aj84f44>

Funder(s)

Funder type

Funder Name

European Commission

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not expected to be made available