

A transdiagnostic mental health intervention for adolescents in the Norwegian school health services

Submission date 19/09/2024	Recruitment status Recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
Registration date 04/10/2024	Overall study status Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 10/06/2025	Condition category Mental and Behavioural Disorders	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Many young people in Norway face challenges with their mental health, and school nurses play a key role in supporting them. To help with this, we have developed an intervention called Kort (which means "Brief" in Norwegian), designed together with young people and school nurses. Kort aims to improve how young people manage their emotions, which can reduce the risk of developing mental health problems. The intervention focuses on five key strategies: setting goals, learning about emotions (psychoeducation), mindfulness, changing negative thoughts (cognitive restructuring), and encouraging positive activities.

The study will explore how well each of these strategies works in improving emotion regulation and overall mental health in young people.

Who can participate?

The study will involve 100 school nurses and 300 adolescents aged 12-18 years from across Norway. The young people taking part will have contacted their school nurse because they are struggling with difficult emotions, thoughts, or stress.

What does the study involve?

If you take part in this study, you will receive the Kort intervention over a period of 10 weeks, with at least four sessions with your school nurse. The sessions will take place at your school.

You will also be asked to complete a daily questionnaire on your phone about how you are feeling. This will take just a few minutes each day. In addition to daily questionnaires, you will also be asked to complete some longer questionnaires before and after the 10-week period, and possibly take part in interviews about your experience.

Each completed questionnaire will earn you tokens, which you can collect and later exchange for a digital gift card.

What are the possible benefits and risks of participating?

Participating in this study gives you the chance to learn new ways to manage stress, difficult thoughts, and emotions. You will also be contributing to research that could help improve mental health support for other young people in the future.

As with any study, there are some risks. You may find it challenging to talk about your emotions or complete daily questionnaires. However, you can always choose to skip a question or stop participating at any time.

Where is the study run from?

The study is being run by the Centre for Child and Adolescent Mental Health in Oslo, Norway.

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

The study was in planning in January 2023. We will continue to recruit participants until June 2026, with the results expected to be published in 2026-2027.

Who is funding the study?

The study is funded by the Research Council of Norway.

Who is the main contact?

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Study website

<https://kort.rbup.no/>

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Additional identifiers

EudraCT/CTIS number

Nil known

IRAS number

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

326941

Study information

Scientific Title

Optimizing a transdiagnostic mental health intervention for adolescents: a randomized controlled trial of Kort in Norwegian school health services

Study objectives

Primary research question:

What is the individual effect of each of the Kort elements (i.e., Setting goals with the adolescent, Exploring emotions, thoughts, and reactions in the body and how they are connected, Exploring health promoting activities, Practicing psychological flexibility, Practicing mindfulness.) on adolescent emotion regulation?

Secondary research questions:

1. What is the individual effect of each of the Kort elements (i.e., Setting goals with the adolescent, Exploring emotions, thoughts, and reactions in the body and how they are connected, Exploring health promoting activities, Practicing psychological flexibility, Practicing mindfulness.) on adolescent emotion regulation?
2. Through which emotion regulation strategies do the Kort elements affect adolescent mental health?
3. Do Kort elements change emotion regulation differently for any subgroups (e.g., age group, gender, problem load)?
4. How is Kort perceived by school nurses and adolescents?

Ethics approval required

Ethics approval required

Ethics approval(s)

1. Approved 27/09/2024, Regional Committees for Medical and Health Research Ethics (Kongens gate 14, Oslo, 0153, Norway; +47 23 31 83 00; post@forskningsetikk.no), ref: 755856
2. Approved 19/09/2024, Norwegian Agency for Shared Services in Education and Research (PO 5782 Torgarden, Trondheim, 7437, Norway; +47 73 98 40 40; postmottak@sikt.no), ref: 333366

Study design

Multicentre interventional randomized controlled trial

Primary study design

Interventional

Secondary study design

Cluster randomised trial

Study setting(s)

School

Study type(s)

Prevention, Quality of life, Efficacy

Participant information sheet

See study outputs table

Health condition(s) or problem(s) studied

Prevention of mental health problems and promotion of well-being in adolescents aged 12-18 years who consult with a school nurse due to emotional challenges

Interventions

The Kort intervention targets emotion regulation in adolescents and is tailored to be delivered by school nurses in the Norwegian school health setting. Kort consists of five treatment elements, two of which are to be delivered in the first session (goal setting and psychoeducation about thoughts, feelings and sensations in the body).

School nurses will be randomized to provide one of the three remaining elements (cognitive restructuring, positive activities, og mindfulness), or care as usual (CAU).

A block randomization scheme is applied using the following criteria: 1) each block has its own training site and dates. 2) for each block, a minimum of 4 school nurses must be allocated to each condition. 3) school nurses who work in the same school are allocated to the same condition (to avoid contamination).

The school nurses recruit adolescents who approach the school nurse due to emotional difficulties (e.g., stress, challenging thoughts, feelings, or emotions). The adolescents receive the intervention elements or CAU, based on their school nurse's allocation.

Intervention Type

Behavioural

Primary outcome measure

Adolescents:

Adolescents receive digital questionnaires every day during the trial period (71 days). They receive a baseline questionnaire on day 1 (T1), questionnaires measuring proximal outcomes of target intervention elements after the first and second session with the school nurse (T2 and T3, respectively, and a post-questionnaire after the intervention period (T4). In addition, adolescents receive daily diary questionnaires (DD) and weekend questionnaires (WW). The outcomes and measures are as follows:

1. Mental Health literacy is measured using a self-developed questionnaire at T1, T2, T3, and T4
2. Emotion regulation (trait) is measured by the Difficulties in emotion regulation scale short form (DERS-SF) at T1, T3, and T4
3. Emotion regulation (state) is measured using a daily self-developed questionnaire (DD)
4. Emotions and emotional intensity are measured using Positive and Negative Affect Schedule (PANAS-SF), daily (DD)
5. Mindfulness is measured using the Five Facet Mindfulness Questionnaire (FFMQ-15) and the the Mindful Attention Awareness Scale (MAAS) at T1, T2, T3, and T4
6. Disordered thinking/cognitive fusion is measured using the Cognitive Fusion Questionnaire (CFQ) at T1 and T4
7. Internalizing and externalizing symptoms are measured using Behavior and Feelings Survey (BFS) at T1 and T4
8. Well-being is measured using the Short Warwick-Edinburgh Mental Wellbeing Scale

(SWEMWBS) at T1 and T4

9. Functional impairment is measured using a self-developed questionnaire at T1 and T4

10. Loneliness is measured by the Three-item loneliness scale (T-ILS) at T1 and T4

11. General mental Health is measured by the Behaviors and Feelings Scale (BFS) at WW

12. Avoidance is measured by Child Avoidance Measure–Self Report (CAMS) at T1, T4 and DD

13. Working alliance is measured by the Working Alliance Inventory short revised (WAI-SR) at T2, T3, and T4

School nurses:

School nurses fill out digital questionnaires about each adolescent after each session. The questionnaires are tailored to the intervention elements, and are all self-developed. They contain items measuring:

1. The school nurse's assessment of whether the session was useful for the adolescent, in general

2. The school nurse's assessment of the perceived value and achieved functions of each of the intervention elements and activities that were applied in that session (i.e., Setting goals and assessing goal attainment, exploring how thoughts, feelings and bodily sensations are connected, exploring challenging thought patterns and practicing identification and modification of them, planning and scheduling positive activities, practicing mindfulness exercises).

Secondary outcome measures

1. Self-compassion is measured by Self-compassion scale youth version (SCS-Y) at T1, T4 and DD

2. Sleep is measured by a single self-developed item at T1 and T4

3. Friendships is measured by a self-developed questionnaire at T1 and T4

4. School attendance and alcohol consumption is measured by a self-developed questionnaire at T1 and T4

Overall study start date

01/01/2023

Completion date

30/06/2026

Eligibility

Key inclusion criteria

1. Adolescents (12-18 years) who seek help from a school nurse due to challenges with emotions, thoughts, feelings, or stress

2. School nurses, or other health professionals (20-80 years) who work in the lower or upper secondary school health services, and who routinely have consultations with adolescents

Participant type(s)

Health professional, Service user

Age group

Mixed

Lower age limit

12 Years

Upper age limit

80 Years

Sex

Both

Target number of participants

400

Key exclusion criteria

1. Adolescents who consult with school nurses due to concerns about somatic problems
2. Adolescents who have clinical level mental disorders warranting specialized mental health care
3. Health nurses who are not currently employed in a upper or lower school health service (e.g., works at a community health centre for youth)

Date of first enrolment

21/11/2024

Date of final enrolment

30/06/2026

Locations**Countries of recruitment**

Norway

Study participating centre**Lesja skole**

Norway

2665

Study participating centre**Vinstra ungdomsskole**

Norway

2640

Study participating centre**Ringebu ungdomsskole**

Norway

2630

Study participating centre

Heidal skole

Norway

2676

Study participating centre

Otta ungdomsskole

Norway

2670

Study participating centre

Gausdal VGS

Norway

2651

Study participating centre

Lillehammer VGS

Norway

2609

Study participating centre

Hammartun barne- og ungdomsskole

Norway

2609

Study participating centre

Lom ungdomsskole

Norway

2686

Study participating centre

Dokka ungdomsskole

Norway

2870

Study participating centre

Skreia ungdomsskole

Norway

2848

Study participating centre

NTG ungdomsskole

Norway

2618

Study participating centre

NTG videregående skole

Norway

2618

Study participating centre

Åretta ungdomsskole

Norway

2613

Study participating centre

Skjåk barne- og ungdomsskole

Norway

2690

Study participating centre

Sjåk videregående skole

Norway

2686

Study participating centre

Lom ungdomsskole

Norway

2686

Study participating centre

Dokka VGS

Norway

2870

Study participating centre

Vågå ungdomsskole

Norway

2680

Study participating centre

Smestad ungdomsskole

Norway

2619

Study participating centre

Create VGS

Norway

2615

Study participating centre

Nord-Gudbrandsdal videregående skole avd. Otta

Norway

2670

Study participating centre

Søndre Land ungdomsskole

Norway

2860

Study participating centre

Lena ungdomsskole

Norway

2850

Study participating centre

Lena – Valle VGS

Norway

2850

Study participating centre

Solvang skole

Norway

2636

Study participating centre

Akademiet VGS

Norway

6004

Study participating centre

Spjelkavik VGS

Norway

6011

Study participating centre

Spjelkavik ungdomsskole

Norway

6011

Study participating centre

Ålesund VGS

Norway

6008

Study participating centre

Spjelkavik ungdomsskole

Norway

6011

Study participating centre

Skarbøvik ungdomsskole

Norway

6006

Study participating centre

Eide ungdomsskole

Norway

6490

Study participating centre

Ulstein ungdomsskole

Norway

6065

Study participating centre

Kolvikbakken ungdomsskole

Norway

6008

Study participating centre

Sula ungdomsskule

Norway

6039

Study participating centre

Ulstein VGS

Norway

6065

Study participating centre

Fræna ungdomsskole

Norway

6440

Study participating centre

Blindheim ungdomsskole

Norway

6011

Study participating centre

Bud barne og ungdomsskole

Norway

6430

Study participating centre

Hustad barne og ungdomsskole

Norway

6444

Study participating centre

Hustadvika VGS

Norway

6440

Study participating centre

Borgund VGS

Norway

6011

Study participating centre

Fusa VGS

Norway

5640

Study participating centre

Voss ungdomsskole

Norway

5700

Study participating centre

Sotra VGS

Norway

5353

Study participating centre

Hop VGS

Norway

5307

Study participating centre

Ravnanger ungdomsskole

Norway

5310

Study participating centre

Fauskanger ungdomsskole

Norway

5314

Study participating centre

Erdal ungdomsskole

Norway

5306

Study participating centre

Fusa ungdomsskole

Norway

5640

Study participating centre

Nore neset ungdomsskole

Norway

5217

Study participating centre

Voss VGS

Norway

5710

Study participating centre

Os ungdomsskole

Norway

5200

Study participating centre

Os VGS

Norway

5200

Study participating centre

Granvin ungdomsskole

Norway

5736

Study participating centre

Voss gymnas

Norway

5700

Study participating centre

Fjell ungdomsskole

Norway

5353

Study participating centre

Kleppestø ungdomsskole

Norway

5300

Study participating centre

Askøy VGS

Norway

5300

Study participating centre

Vormsund ungdomsskole

Norway

2160

Study participating centre

Nesodden VGS

Norway

1459

Study participating centre

Vesong ungdomsskole

Norway

2040

Study participating centre

Grevlingen ungdomsskole

Norway

1555

Study participating centre

Vestby ungdomsskole

Norway

1540

Study participating centre

Asker VGS

Norway

1386

Study participating centre

Nannestad ungdomsskole

Norway

2030

Study participating centre

Nannestad VGS

Norway

2030

Study participating centre

Bakkeløkka ungdomsskole

Norway

1454

Study participating centre

Gystadmarka ungdomsskole

Norway

2069

Study participating centre

Jessheim VGS

Norway

2066

Study participating centre

Nesbru VGS

Norway

1396

Study participating centre

Røyken VGS

Norway

3440

Study participating centre

Bleiker VGS

Norway

1387

Study participating centre

Runni ungdomsskole

Norway

2150

Study participating centre

Rakkestad ungdomsskole

Norway

1890

Study participating centre

Nes VGS

Norway

2150

Study participating centre

Uvdal skole

Norway

3632

Study participating centre

Rødberg skole

Norway

3630

Study participating centre

Veggli skole

Norway

3628

Study participating centre

Edvar Munch VGS

Norway

0165

Study participating centre

Vestby VGS

Norway

1540

Study participating centre

Bodø VGS

Norway

8005

Study participating centre

Bodin VGS

Norway

8026

Study participating centre

Valle skule

Norway

6260

Study participating centre

Bykle skule

Norway

4754

Study participating centre

Setesdal VGS

Norway

4747

Study participating centre

Gressvik ungdomsskole

Norway

1621

Study participating centre

Vestbygda ungdomsskole

Norway

1626

Study participating centre

Kvernhuset ungdomsskole

Norway

1615

Study participating centre

Glemmen VGS

Norway

1605

Study participating centre

Haugeåsen ungdomsskole

Norway

1663

Study participating centre

Borge ungdomsskole

Norway

1654

Study participating centre

Risum ungdomsskole

Norway

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Study participating centre

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Funder(s)

Funder type

Government

Funder Name

Norges Forskningsråd

Alternative Name(s)

Forskningsrådet, Norwegian Research Council, Research Council of Norway

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

Norway

Results and Publications

Publication and dissemination plan

Results will be made available:

- For participants and the general public through the project website and project members' social media platforms
- For school health professionals through local and/or domestic congresses, and through the host institution's teaching curriculum
- For the research community through several publications in open access peer-reviewed international journals, as well as Norwegian language journals

Intention to publish date

01/06/2027

Individual participant data (IPD) sharing plan

The datasets generated during and/or analyzed during the study will be stored in a publicly available repository by Sikt – the Norwegian Agency for Shared Services in Education and Research (<https://www.sikt.no/en/find-data>). All quantitative data described in the protocol will be deidentified and uploaded by December 2027 and will be available indefinitely.

IPD sharing plan summary

Stored in publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet			19/09/2024	No	Yes
Other files			11/03/2025	No	No
Protocol file			11/03/2025	No	No