

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

<b>Submission date</b> 19/09/2024	<b>Recruitment status</b> Recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 04/10/2024	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 10/06/2025	<b>Condition category</b> 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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## **Additional identifiers**

**Clinical Trials Information System (CTIS)**

Nil known

**ClinicalTrials.gov (NCT)**

Nil known

**Protocol serial number**

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

## **Study type(s)**

Prevention, Quality of life, Efficacy

## **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, or 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(s)**

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).

**Key secondary outcome(s))**

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

**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

**Healthy volunteers allowed**

No

**Age group**

Mixed

**Lower age limit**

12 years

**Upper age limit**

80 years

**Sex**

All

**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**

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**Organisation**

Centre for Child and Adolescent Mental Health, Eastern and Southern Norway

**Organisation**

Norwegian Institute for Public Health

**Organisation**

Fremsam

# Funder(s)

## Funder type

Government

## Funder Name

Norges Forskningsråd

## Alternative Name(s)

Forskningsrådet, Norwegian Research Council, Research Council of Norway, The Research Council of Norway

## Funding Body Type

Government organisation

## Funding Body Subtype

National government

## Location

Norway

# Results and Publications

## 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?
<a href="#">Other files</a>			11/03/2025	No	No
<a href="#">Participant information sheet</a>			19/09/2024	No	Yes
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes
<a href="#">Protocol file</a>			11/03/2025	No	No
<a href="#">Study website</a>	Study website	11/11/2025	11/11/2025	No	Yes