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

Submission date	Recruitment status	[X] Prospectively registered
19/09/2024	Recruiting	[X] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
04/10/2024	Ongoing	[_] Results
Last Edited	**Condition category**	[_] Individual participant data
09/06/2026	Mental and Behavioural Disorders	[X] 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 December 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?
Line Solheim Kvamme, line.kvamme@r-bup.no
Anneli Mellblom, anneli.mellblom@r-bup.no
Thomas Engell, te@r-bup.no
Kristian Rognstad, kristian.rognstad@r-bup.no
Siri Helland, siri.helland@r-bup.no
Ragnhild Bang Nes, RagnhildBang.Nes@fhi.no
Josefine Bergseth, josefine.bergseth@r-bup.no
Ingvild Follestad, ibf@r-bup.no
Inga Brenne, inga.brenne@fremsam.no
John Kjøbli, john.kjobli@r-bup.no

Contact information

Type(s)
Scientific

Contact name
Dr Line Solheim Kvamme

ORCID ID
https://orcid.org/0000-0002-2946-1148

Contact details
Centre for Child and Adolescent Mental Health
Gullhaugveien 1-3
Olso
Norway
0484
+47 92834378
line.kvamme@r-bup.no

Type(s)
Scientific, Principal investigator

Contact name
Dr Anneli Mellblom

ORCID ID
https://orcid.org/0000-0002-9980-1910

Contact details
Centre for Child and Adolescent Mental Health
Gullhaugveien 1-3
Oslo
Norway
0484
+47 91785722
anneli.mellblom@r-bup.no

Type(s)
Scientific

Contact name
Dr Thomas Engell

Contact details
Centre for Child and Adolescent Mental Health
Gullhaugveien 1-3
Oslo
Norway
0484
-
te@r-bup.no

Type(s)
Scientific

Contact name
Dr Kristian Rognstad

Contact details
Centre for Child and Adolescent Mental Health
Gullhaugveien 1-3
Oslo
Norway
0484
-
kristian.rognstad@r-bup.no

Type(s)
Scientific

Contact name
Dr Siri Helland

Contact details
Centre for Child and Adolescent Mental Health
Gullhaugveien 1-3
Oslo
Norway
0484
-
siri.helland@r-bup.no

Type(s)
Scientific

Contact name
Dr Ragnhild Bang Nes

Contact details
Promenta Research Centre, University of Oslo
Oslo
Norway
0317
-
RagnhildBang.Nes@fhi.no

Type(s)
Scientific

Contact name
Dr Josefine Bergseth

Contact details
Centre for Child and Adolescent Mental Health
Gullhaugveien 1-3
Oslo
Norway
0484
-
josefine.bergseth@r-bup.no

Type(s)
Scientific

Contact name
Dr Ingvild Follestad

Contact details
Centre for Child and Adolescent Mental Health
Gullhaugveien 1-3
Oslo

Norway
0484
-
ibf@r-bup.no

Type(s)
Public

Contact name
Ms Inga Brenne

Contact details
Øvre Slottsgate 3
Oslo
Norway
0157
+47 41585469
inga.brenne@fremsam.no

Type(s)
Principal investigator

Contact name
Prof John Kjøbli

ORCID ID
https://orcid.org/0000-0002-5639-1691

Contact details
Centre for Child and Adolescent Mental Health
Gullhaugveien 1-3
Oslo
Norway
0484
+47 93660252
john.kjobli@r-bup.no

Additional identifiers

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

Primary study design
Interventional

Study design
Multicentre interventional randomized controlled trial

Study type(s)
Efficacy, Prevention, Quality of life

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
31/12/2026

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

Total final enrolment
0

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
31/12/2026

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
1769

Study participating centre
Halden VGS
Norway
1772

Sponsor information

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?
Other files			11/03/2025	No	No
Participant information sheet			19/09/2024	No	Yes
Protocol file			11/03/2025	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes