

Evaluating a mental health literacy education program for teenagers delivered by teachers in Portuguese secondary schools

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Registration date 10/03/2026	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 10/03/2026	Condition category Mental and Behavioural Disorders	<input checked="" type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Adolescence is a critical developmental period marked by significant psychological, social, and biological transitions, with approximately 50% of lifetime mental disorders emerging before age 18. School-based programs are vital for promoting mental health during these years because they simultaneously address knowledge transmission, attitudes, and skills not only to manage mental disorders but to maintain positive mental health fostering resilience. This study evaluates the effects of the WhySchool 2.0 program, a teacher-delivered multicomponent mental health literacy (MHL) curriculum, on students' aggregate MHL (primary outcome), and on personal stigma toward depression and help-seeking behaviors (secondary outcomes). The study also explores how these outcomes are influenced by students' mental health symptoms (particularly help-seeking) and sociodemographic variables, such as sex and school level.

Who can participate?

Participants are students of both sexes enrolled in grades 7th to 12th (ages 12 to 18) during the 2018-2019 academic year at seven selected public schools. They participate as healthy volunteers from the general school population. In the intervention group, students are eligible if they are in classrooms where the MHL curriculum is implemented by teachers who completed all three prerequisite training courses during the same academic year. In the control group, students are eligible if they attend schools that do not receive any component of the teacher training or classroom curriculum during the study period.

What does the study involve?

The study involves seven public schools across three Portuguese regions, selected based on geographical criteria, institutional feasibility, and pre-existing partnerships. Students in four intervention schools receive the WhySchool 2.0 program, consisting of six structured MHL lessons delivered by their trained teachers over six weeks. This curriculum is adapted from the recognized Canadian guide "Mental Health and High School Curriculum Guide: Understanding Mental Health and Mental Illness" and is supported by a website for lesson materials and a mobile app featuring interactive quizzes and infographics. Students in the three remaining schools serve as a control group and continue with their regular classes. All students are

evaluated using self-report questionnaires assessing aggregated MHL, personal depression stigma, and help-seeking at two time points: baseline (one week before the program) and six weeks later (immediately after the program ends). Personal information (such as sex and school grade) and mental health symptoms (using the Patient Health Questionnaire-4) are measured only at the start of the study.

What are the possible benefits and risks?

Benefits include improved MHL and awareness, leading to enhanced knowledge, reduced stigma and better help-seeking efficacy, which can result in multiple short-, medium-, and long-term health gains. There are no known risks to participants, though discussing mental health may be sensitive for some. If a student shows signs of emotional distress during the sessions, a response protocol is activated in coordination with the class tutor and school psychologist, who will assess the situation and, if appropriate, contact the student's guardian and refer the student to adequate healthcare services.

Where is the study run from?

The study is managed by EUTIMIA (branch of the European Alliance Against Depression in Portugal) and the Faculty of Psychology and Educational Sciences of the University of Porto.

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

The study ran during the 2018-2019 academic year for approximately 7 months.

Who is funding the study?

The Portuguese Directorate-General of Health (DGS) and the Foundation for Science and Technology (FCT).

Who is the main contact?

Ricardo Gusmão (rgusmao@mac.com), Senior researcher at the Public Health Institute of the University of Porto (ISPUP) and Associate Professor of Psychiatry and Public Mental Health at the Faculty of Medicine of the University of Porto (FMUP).

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Study information

Scientific Title

Effects of a teacher-delivered curriculum on mental health literacy, including stigma and help-seeking behavior, among Portuguese secondary students compared to usual school activities: the WhySchool 2.0 case-control quasi-experimental study

Acronym

WhySchool 2.0

Study objectives

This study follows the TREND statement guidelines for nonrandomized evaluations of behavioral and public health interventions. The objectives are:

1. To evaluate the effect of the WhySchool 2.0 teacher-delivered curriculum on students' aggregated Mental Health Literacy (primary outcome);
2. To assess changes on personal depression stigma and help-seeking behaviors (secondary outcomes).
3. To explore how outcomes are influenced by students' mental health symptoms, particularly regarding help-seeking, and sociodemographic variables known to be associated with MHL, such as sex and school level.

Ethics approval required

Ethics approval required

Ethics approval(s)

1. approved 12/03/2021, Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Porto (R. Alfredo Allen, Porto, 4200-135, Portugal; +351 226079700; sog@fpce.up.pt), ref: Ref. 2021/02-02b

2. approved 18/12/2015, Research Ethics Board of the Health Regional Administration of Lisboa and Vale do Tejo (Av. Estados Unidos da América, 75-77, Lisboa, 1749-096, Portugal; +351 21 842 5203/5123; etica@arslvt.min-saude.pt), ref: 18025/CES/2015

Primary study design

Interventional

Allocation

Non-randomized controlled trial

Masking

Open (masking not used)

Control

Active

Assignment

Parallel

Purpose

Prevention, Mental health promotion

Study type(s)

Health condition(s) or problem(s) studied

Aggregated mental health literacy, personal depression stigma, and help-seeking behaviors in adolescents

Interventions

1. Study Design

This quasi-experimental case-control study takes place across seven public schools in three distinct Portuguese regions. Schools share comparable educational and structural characteristics and are selected based on geographical criteria, institutional feasibility, and pre-existing partnerships. Selection purposefully avoids major metropolitan areas to minimize confounding factors. Allocation results in four schools in the intervention group and three schools in the control group.

2. Intervention Group: WhySchool 2.0 Intervention

The intervention consists of a teacher-led Mental Health Literacy (MHL) program delivered in a classroom setting, following a multi-layered capacity-building model:

2.1. Teacher Training: Teachers first complete three sequential courses totaling 62 hours of specialized training. This includes 6 hours on general mental health concepts, 6 hours on adolescent mental health, and 50 hours of intensive preparation combining in-person training with autonomous work for classroom implementation.

2.2. Student Curriculum: Trained teachers deliver six structured MHL lessons to students over a six-week period. The content is adapted from the Canadian Mental Health & High School Curriculum Guide and covers the MHL's four components, including maintaining positive mental health, understanding mental health and information on specific mental illnesses, stigma associated with mental illness, and seeking help and support.

To support both teacher preparation and student engagement, the intervention incorporates two digital platforms: the WhySchool website (pedagogical materials) and the EutimiaTeen mobile app (interactive quizzes and infographics).

3. Control Group: Active Comparator

The control group acts as a naturalistic comparator. Participants in these schools follow the usual school curriculum and do not receive any component of the teacher training or classroom MHL materials during the study period. For ethical reasons, these students are offered a condensed mental health information session only after the study is completed.

4. Assessment Timepoints

Students in both groups are evaluated using self-report questionnaires at two time points:

4.1. Baseline: The week before the intervention starts.

4.2. Post-intervention: Six weeks later, immediately after the program ends.

Intervention Type

Other

Primary outcome(s)

1. Aggregate Mental Health Literacy measured using the 18-item Mental Health Literacy (MHL) Scale, adapted from the Canadian Mental Health & High School Curriculum Guide at pre- and post-intervention

Key secondary outcome(s)

1. Personal Depression Stigma measured using the 9-item Personal subscale of the Depression Stigma Scale at pre- and post-intervention

2. Help-seeking Behavior measured using a 3-category item (no perceived need, sought help, unmet need) adapted from the perceived need for care framework at pre- and post-intervention

Completion date

21/06/2019

Eligibility

Key inclusion criteria

1. Students enrolled in grades 7th to 12th during the 2018-2019 academic year
2. Attending one of the seven selected public schools in Portugal
3. Written informed consent obtained from both students and their parents or legal guardians
4. For the intervention group: students in classrooms where teachers successfully completed the specialized 62-hour mental health literacy training program
5. For the control group: students in schools that did not receive any component of the teacher training or classroom mental health literacy curriculum during the study period

Healthy volunteers allowed

Yes

Age group

Mixed

Lower age limit

12 years

Upper age limit

18 years

Sex

All

Total final enrolment

526

Key exclusion criteria

1. Students with severe cognitive or sensory impairments that preclude them from following regular classroom activities or completing the self-report questionnaires
2. Students with insufficient proficiency in the Portuguese language to understand the curriculum or complete the assessment instruments
3. Students who transferred into a participating classroom after the baseline data collection had already been completed
4. Students who were already participating in another mental health literacy program during the study period

Date of first enrolment

07/01/2019

Date of final enrolment

06/02/2019

Locations

Countries of recruitment

Portugal

Sponsor information

Organisation

Universidade do Porto

ROR

<https://ror.org/043pwc612>

Funder(s)

Funder type

Funder Name

Directorate-General of Health (Direção-Geral da Saúde - DGS)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Statistical Analysis Plan			10/03/2026	No	No