

COVID-19 pandemic effects on depression, anxiety and help-seeking attitudes in college students

Submission date 17/11/2020	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 19/11/2020	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 03/01/2023	Condition category Mental and Behavioural Disorders	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and study aims

For young people, just as in the general population, the COVID-19 pandemic has caused many changes in their lives. Research has shown an increased risk for mental illness symptoms as a consequence of the pandemic. The aim of this study is to evaluate the impact of the COVID-19 pandemic on university students' anxiety and depression symptoms. This is a follow up to the study described at <https://www.isrctn.com/ISRCTN97093665>.

Who can participate?

Students in their first year at the University of Porto who participated in the previous study

What does the study involve?

The study involves three follow-up evaluations besides the ones described in the previous study, taking place in June 2020, January and May 2021. Depression symptoms, anxiety symptoms and help-seeking attitudes are assessed using questionnaires.

What are the possible benefits and risks of participating?

Benefits include increasing knowledge about how changes brought by the COVID-19 influence depression and anxiety symptoms. Possible risks/inconvenience include the time invested in responding to the questionnaires.

Where is the study run from?

Institute of Public Health of the University of Porto (Portugal)

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

February 2019 to June 2021

Who is funding the study?

Investigator initiated and funded

Who is the main contact?
Virgínia Conceição
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Contact information

Type(s)
Scientific

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
PMHDS-1

Study information

Scientific Title
COVID-19 pandemic effects on depression, anxiety and help-seeking attitudes in college students: a cohort study

Study objectives
Depression and anxiety symptoms increased as a result of the COVID-19 pandemic.

Ethics approval required
Old ethics approval format

Ethics approval(s)

Approved 01/08/2020, Institute of Public Health of the University of Porto ethics committee (Rua das Taipas 135, 4050-091 Porto; +351 (0)222061820; etica@ispup.up.pt), ref: CE18096

Study design

Observational cohort study

Primary study design

Observational

Study type(s)

Screening

Health condition(s) or problem(s) studied

Changes in depression and anxiety symptoms in college students

Interventions

This study is part of broader longitudinal research on university students' mental health with the Portuguese version of The Patient Health Questionnaire (PHQ-9) and the Portuguese version of the Generalised Anxiety Disorder (GAD-7) data with evaluations on January, May and October 2019 and June 2020, as well as socio-demographic information.

Using the SurveyMonkey platform, in February 2019, the researchers contacted all 4493 first-year students from all 14 schools of the University of Porto through institutional email and invited them to participate in the study. A reminder email is sent a week after the first email. Participants are then also evaluated in May and October 2019 and again in June 2020. The researchers plan to repeat the evaluation in January and May 2021.

The statistical analyses consist of two parts. The first part explores the results obtained in the last moment of evaluation, describing depression and anxiety symptomatology after the pandemic, and comparing mean scores and above cut-off proportions according to gender and by all the covariates. The researchers use Student's t-test to compare groups in continuous variables, and the Mann-Whitney test to compare proportions between two groups.

The second phase explores the differences in PHQ-9 and GAD-7 scores across time, using one-way ANOVA repeated measures to assess changes in means, and Cochran's Q test with McNemar's post-hoc Bonferroni-adjusted alpha to evaluate the changes in cut-off proportions between the different evaluation moments. The researchers will fixed-effects regression to analyse the effect of the pandemic on changes within an individual's depression and anxiety symptomatology, and mean scores for the outcome measure, as opposed to fitting a fixed-effects model for a binary outcome indicator, in order to prevent the exclusion with concordant responses over time.

The researchers will assess the effect of the pandemic within participants using fixed-effects regression and use mean scores for the outcome measure because a binary outcome in the fixed-effects model would further reduce the sample available for analysis as it would exclude concordant responses over time, thus affecting statistical power.

Intervention Type

Other

Primary outcome(s)

1. Depression symptoms measured with the Portuguese version of The Patient Health Questionnaire (PHQ-9) in February, May and October 2019, June 2020, January and May 2021
2. Anxiety symptoms measured with the Portuguese version of the Generalised Anxiety Disorder (GAD-7) in February, May and October 2019, June 2020, January and May 2021

Key secondary outcome(s)

Help-seeking attitudes measured with the Attitudes Toward Seeking Professional Help scale in February, May and October 2019, June 2020, January and May 2021

Completion date

01/06/2021

Eligibility

Key inclusion criteria

1. Participated in the RCT "Mental health stigma: a videobased randomized controlled trial to reduce depression stigma among university students" (<https://www.isrctn.com/ISRCTN97093665>)
2. Responded to all evaluation moments described in the above study

Participant type(s)

Healthy volunteer

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Total final enrolment

623

Key exclusion criteria

Does not meet inclusion criteria

Date of first enrolment

01/04/2019

Date of final enrolment

31/05/2019

Locations

Countries of recruitment

Portugal

Study participating centre
Institute of Public Health of the University of Porto
Rua das Taipas nº135
Porto
Porto
Portugal
4050-600

Sponsor information

Organisation
University of Porto

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

Funder(s)

Funder type
Other

Funder Name
Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Virgínia Conceição (up200501131@med.up.pt).

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		14/12/2021	03/01/2023	Yes	No
Participant information sheet			20/11/2020	No	Yes
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes