

Effect of a Self-Management Cycle Framework-based psychoeducational intervention on academic anxiety among medical students: a randomized controlled trial

Submission date 06/04/2026	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 08/04/2026	Overall study status Completed	<input checked="" type="checkbox"/> Protocol
Last Edited 08/04/2026	Condition category Mental and Behavioural Disorders	<input 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

Medical students often experience high levels of academic stress and anxiety, which can negatively affect their learning, well-being, and future professional performance. Although psychoeducation is commonly used to support student mental health, many programmes focus mainly on providing information and may not include structured practice or skill application. This study aims to evaluate whether a more structured approach can better support students in managing academic stress.

Who can participate?

Third-year medical students aged 18 years and over with higher levels of academic anxiety

What does the study involve?

Participants will complete a baseline assessment of academic anxiety, self-efficacy, and psychological resilience and will be randomly assigned to one of two groups. The intervention group will take part in an 8-week psychoeducational programme based on the Self-Management Cycle Framework (SMCF). This programme includes structured activities such as goal setting, skill practice, self-monitoring, and peer interaction. The control group will receive a lecture-based psychoeducation programme covering similar topics, such as stress management and emotional regulation, but without practical exercises or structured skill training. All participants will complete the same questionnaires again after the programme to assess changes in their mental health.

What are the possible benefits and risks of participating?

Participants may benefit from improved ability to manage academic stress, increased confidence in their learning, and better emotional resilience. There are minimal risks associated with participation. Some students may feel mild emotional discomfort when reflecting on their stress, but support will be available if needed.

Where is the study run from?
Zunyi Medical University (China)

When is the study starting and how long is it expected to run for?
September 2025 to December 2025

Who is funding the study?
Zunyi Medical University (China)

Who is the main contact?
Kun He, 317037645@qq.com

Contact information

Type(s)

Public, Scientific

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Additional identifiers

Study information

Scientific Title

A parallel-group randomized controlled trial evaluating a Self-Management Cycle Framework (SMCF)-based psychoeducational intervention versus wait-list control for reducing academic anxiety among third-year medical students in China

Study objectives

To evaluate the effectiveness of a psychoeducational intervention based on the Self-Management Cycle Framework (SMCF) in reducing academic anxiety and improving academic self-efficacy and psychological resilience among medical students.

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 08/08/2025, Ethics Committee of The Fifth Affiliated Hospital of Zunyi Medical University, Zhuhai (No. 1439 Zhufeng Avenue, Doumen District, Zhuhai, 519100, China; +86 (0) 756 627 7715; 2009kjk@163.com), ref: 2025KY0110

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Open (masking not used)

Control

Active

Assignment

Parallel

Purpose

Prevention

Study type(s)

Health condition(s) or problem(s) studied

Academic anxiety and related psychological factors (self-efficacy and psychological resilience) among medical students

Interventions

Participants will be randomly assigned to the intervention or control group in a 1:1 ratio using computer-generated permuted block randomisation with a fixed block size of 4. This will ensure balanced allocation between groups. Allocation will be concealed prior to assignment.

The intervention group will receive a structured psychoeducational programme based on the Self-Management Cycle Framework (SMCF). The programme consists of 8 sessions delivered over 8 weeks (90 minutes per session) in a group format. The intervention includes modules on self-assessment, goal setting, strategic learning, behavioural implementation, monitoring and adjustment, and peer/community engagement. Techniques include cognitive restructuring, behavioural activation, mindfulness-based strategies, and structured self-monitoring.

The control group will receive a structured didactic psychoeducation programme covering similar thematic content (e.g., academic stress, coping strategies, and emotional regulation). The programme will be delivered in a lecture-based format without guided behavioural practice, experiential exercises, peer interaction tasks, or structured feedback processes.

In contrast to the SMCF-based intervention, the control condition does not include task-based skill application, in-session behavioural activation, or iterative monitoring and adjustment components.

This study is conducted under the supervision of Associate Professor Dr Chatchai Ekpanyaskul, MD, Srinakharinwirot University, Thailand.

Intervention Type

Behavioural

Primary outcome(s)

1. Academic anxiety measured using the Academic Anxiety Scale (AAS) at baseline (week 0) and immediately post-intervention (week 8)

Key secondary outcome(s)

1. Academic self-efficacy measured using the Academic Self-Efficacy Scale (ASES-C) at baseline (week 0) and immediately post-intervention (week 8)

2. Psychological resilience measured using the Connor-Davidson Resilience Scale (CD-RISC) at baseline (week 0) and immediately post-intervention (week 8)

Completion date

04/12/2025

Eligibility

Key inclusion criteria

1. Third-year clinical medicine undergraduate students enrolled at the Zhuhai campus of Zunyi Medical University, China.
2. Aged 18 years or above.
3. Able to understand the study procedures and provide informed consent.
4. Completed baseline screening assessments.
5. Ranked among the 128 students with the highest scores on the Academic Anxiety Scale (AAS) and eligible for the intervention phase.
6. Willing and able to attend the scheduled group sessions throughout the study period.

Healthy volunteers allowed

Yes

Age group

Adult

Lower age limit

18 Years

Upper age limit

30 Years

Sex

All

Total final enrolment

128

Key exclusion criteria

1. Currently receiving structured psychological or psychiatric treatment targeting anxiety or related mental health problems during the study period.
2. History of diagnosed severe mental disorders (e.g., major depressive disorder, bipolar disorder, psychotic disorders) that may interfere with participation.
3. Severe physical or cognitive conditions that limit the ability to participate in group sessions or complete assessments.
4. Inability to attend scheduled intervention sessions or anticipated absence during the study period.
5. Incomplete or invalid baseline assessment data preventing eligibility determination.

Date of first enrolment

29/09/2025

Date of final enrolment

15/10/2025

Locations

Countries of recruitment

China

Study participating centre

Zunyi Medical University

Zhuhai Campus, No. 368 Jinwan Road, Jinwan District

Zhuhai

China

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Sponsor information

Organisation

Zunyi Medical University

ROR

<https://ror.org/00g5b0g93>

Funder(s)

Funder type

Funder Name

Zunyi Medical University

Results and Publications

Individual participant data (IPD) sharing plan

De-identified individual participant data (IPD) may be made available upon reasonable request to the corresponding author after publication of the study results. Data sharing will be subject to institutional approval, ethical considerations, and a formal data sharing agreement.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file			07/04/2026	No	No