ISRCTN11249540 https://doi.org/10.1186/ISRCTN11249540

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

Registration date
08/04/2026

Overall study status
Completed

Last Edited
08/04/2026

Condition category
Mental and Behavioural Disorders

[_] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] 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

Contact name
Mr Kun He

ORCID ID
https://orcid.org/0009-0006-2631-7569

Contact details
No. 1399 Zhufeng Avenue
Zhuhai
China
519100
+86 (0)13726241275
317037645@qq.com

Type(s)
Principal investigator

Contact name
Dr Chatchai Ekpanyaskul

ORCID ID
https://orcid.org/0000-0002-2906-9832

Contact details
Srinakharinwirot University, 114 Sukhumvit 23, Wattana
Bangkok
Thailand
10110
+66 (0)2-649-5000
chatchaie@g.swu.ac.th

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
519041

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