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Effects of a structured mental health workshop on burnout, perceived stress, resilience, and professional identity in resident physicians

Submission date
14/08/2026

Recruitment status
No longer recruiting

Registration date
18/08/2026

Overall study status
Completed

Last Edited
18/08/2026

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Resident physicians are doctors in training who often work long hours and face high levels of responsibility. This can lead to burnout, stress, and other mental health problems. There is a need for effective support programmes that can help doctors manage these challenges while also strengthening their professional identity. This study evaluated whether a structured mental health workshop could improve burnout, stress, resilience, and professional identity in resident physicians compared with routine residency training alone.

Who can participate?
People can participate if they:
1. Are formally enrolled in a standardized residency training programme
2. Are aged 23 to 29 years
3. Provide written informed consent
4. Are able to complete the workshop activities and questionnaires independently
People cannot participate if they have a psychiatric condition requiring active treatment or if they are currently receiving psychological counselling, psychotherapy, psychiatric treatment, or another structured mental health intervention.

What does the study involve?
Participants are randomly allocated to one of two groups.
The control group continues with routine residency training, including teaching activities, clinical rotations, and informal psychological support provided through clinical mentorship.
The intervention group receives the same routine training and also takes part in an 8-week structured mental health workshop. The workshop consists of eight weekly sessions lasting 90 minutes each. It includes topics such as stress management, emotional regulation, peer support, communication skills, professional adaptation, and reflective practice.
Participants complete questionnaires before the workshop starts and again after the 8-week intervention. These questionnaires assess burnout, stress, resilience, and professional identity. Participants in the intervention group also complete a questionnaire about their satisfaction with the workshop.

What are the possible benefits and risks of participating?
Participants may benefit from learning skills to help manage stress, improve emotional wellbeing, build resilience, and strengthen their professional identity. The study results suggest that participants who attended the workshop experienced improvements in several measures of psychological wellbeing.
The risks are expected to be low. Some participants may find discussions about stress, emotions, or work-related challenges uncomfortable or upsetting. However, the intervention is educational and supportive in nature.

Where is the study run from?
Luohe Central Hospital (China).

When is the study starting and how long is it expected to run for?
September 2024 to October 2025.

Who is funding the study?
Luohe Central Hospital (China).

Who is the main contact?
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Contact information

Type(s)
Principal investigator, Public, Scientific

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Study information

Scientific Title
A prospective randomized controlled trial of a structured mental health workshop for improving burnout, perceived stress, resilience, and professional identity in resident physicians

Study objectives

This study evaluated the effectiveness of a Job Demands–Resources (JD-R) model-guided Structured Mental Health Workshop.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 01/09/2024, the Ethics Committee of Luohe Central Hospital (No. 56 Renmin East Road, Luohe, 462000, China; +86 395 3356819; llb56819@126.com), ref: LCH-ETH-02-2024-033

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Blinded (masking used)

Control
Active

Assignment
Parallel

Purpose
Effectiveness of a job demands–resources (JD-R) model-guided structured mental health workshop

Study type(s)

Health condition(s) or problem(s) studied
Occupational burnout and related occupational mental health problems among resident physicians

Interventions
Control group:
Those assigned to the control group underwent routine standardized residency training management, including scheduled teaching activities and clinical rotations, as well as informal psychological support provided through routine clinical mentorship. No additional structured psychological intervention was provided.

Intervention group:
In addition to routine training management, residents in the intervention arm attended an 8-week-long structured mental health workshop comprising eight weekly 90-min sessions. The intervention was grounded in the JD-R model, which emphasizes the balance between occupational demands and available psychological and social resources. The workshop integrated six evidence-informed domains: stress management, emotional regulation, peer support, professional adaptation, communication skills training, and reflective practice. A standardized facilitator manual and participant workbook were developed to ensure intervention consistency, reproducibility, and scalability across training settings.

Randomisation:
The 162 eligible residents were randomly allocated in a 1:1 ratio to the intervention or control group (81 participants per group) using a computer-generated randomisation sequence. The randomisation sequence was generated in advance by a researcher who was not involved in participant recruitment, intervention delivery, or outcome assessment. Based on this sequence, 162 sequentially numbered, opaque, sealed envelopes were prepared, each containing the corresponding group assignment. The envelopes were securely stored and opened sequentially according to participants' enrolment order to ensure allocation concealment. After completion of the baseline assessment, the envelope corresponding to each participant was opened by a researcher who was not involved in outcome assessment, and the participant was assigned to the group indicated in the envelope. The intervention was then initiated according to the assigned group. Outcome assessors and statisticians were blinded to group allocation throughout the study, whereas participants could not be blinded because of the nature of the intervention.

Intervention Type
Behavioural

Primary outcome(s)
1. Burnout measured using Maslach Burnout Inventory–General Survey at pre-intervention, post-intervention (at 8 weeks)

2. Perceived stress measured using 10-item Perceived Stress Scale at pre-intervention, post-intervention (at 8 weeks)

3. Psychological resilience measured using Connor–Davidson Resilience Scale at pre-intervention, post-intervention (at 8 weeks)

4. Professional identity measured using Modified version of the 13-item Professional Identity Scale at pre-intervention, post-intervention (at 8 weeks)

Key secondary outcome(s)
1. Post-intervention feedback assessment measured using seven-item satisfaction questionnaire at Post-intervention (at 8 weeks)

Completion date
31/10/2025

Eligibility

Key inclusion criteria
1. Formally enrolled in the standardized residency training program
2. Provided written informed consent
3. Were able to complete all intervention activities and questionnaire assessments independently

Healthy volunteers allowed
Yes

Age group

Adult

Lower age limit
23 Years

Upper age limit
29 Years

Sex
All

Total final enrolment
162

Key exclusion criteria
1. Had a confirmed psychiatric condition requiring active treatment
2. Were receiving psychological counseling, psychotherapy, psychiatric treatment, or other structured mental health interventions that could influence the study outcomes

Date of first enrolment
01/09/2024

Date of final enrolment
01/09/2025

Locations

Countries of recruitment
China

Study participating centre
Luohe Central Hospital
No. 56 Renmin East Road
Luohe
China
462000

Sponsor information

Organisation
Luohe Central Hospital

Funder(s)

Funder type

Funder Name
Luohe Central Hospital

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available