ISRCTN10402129 https://doi.org/10.1186/ISRCTN10402129

Effects of music regulation and combined mind-body intervention in the prisoner population

Submission date
13/10/2026

Recruitment status
No longer recruiting

Registration date
13/10/2026

Overall study status
Ongoing

Last Edited
13/10/2026

Condition category
Mental and Behavioural Disorders

[X] 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
People in prison often experience high stress, anxiety, low mood and poor sleep, which can affect their wellbeing and behaviour. Listening to relaxing music and practising simple mind-body techniques such as guided relaxation, breathing and gentle stretching are low-cost, safe and easy to deliver, but little is known about whether they help in a prison setting, either alone or combined. This study aims to find out whether music and mind-body practices improve mood and sleep among people in prison, and whether using both together works better than either one alone.

Who can participate?
Adults aged 18 to 65 held in the participating prison who have at least 7 months of their sentence remaining, can read and understand Chinese questionnaires, and agree to take part in writing. People with serious self-reported physical or mental-health conditions, or who are due for parole, release or transfer within the next 7 months, cannot take part.

What does the study involve?
Four prison districts take part, and each is assigned to one of four arrangements that continue throughout the study: daily routine as usual, music practice only, mind-body practice only, or both music and mind-body practice. The practices are fitted into the normal prison day and include short guided relaxation or mindfulness audio with relaxing music, gentle stretching during work breaks, and a brief bedtime practice in some groups. In the first week everyone completes baseline questionnaires (about 20 minutes); the same questionnaires are repeated in weeks 6, 11 and 16. Participation is voluntary and anyone can stop at any time without penalty.

What are the possible benefits and risks of participating?
Participants may learn simple relaxation skills, receive brief feedback on their own stress and sleep, and help build healthier prison routines. Risks are minor: mild muscle tiredness or brief emotional discomfort during relaxation. There are no drugs, injections, devices or invasive procedures."[

Where is the study run from?
The School of Psychology, Shenzhen University, China.

When is the study starting and how long is it expected to run for?
It starts in October 2026; the active programme in the prison lasts 16 weeks, and the whole study is expected to finish around October 2027.

Who is funding the study?
This study is funded by the National Natural Science Foundation of China (NSFC).

Who is the main contact?
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Study information

Scientific Title
Effects of music regulation and combined mind-body intervention in the prisoner population

Study objectives

To evaluate the effects of music regulation, mind-body regulation, and their combined intervention on improving emotional problems among prisoners, and to further examine the added benefit of music regulation on the outcomes of the mind-body regulation intervention. To explore the psychological mechanisms by which music regulation and mind-body regulation interventions improve emotional wellbeing and sleep, thereby providing a basis for establishing a long-term intervention model suitable for routine management in prison settings.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 22/09/2026, Human Research Ethics Committee for Non-Clinical Faculties (Shenzhen University, Shenzhen, 518060, China; +86 755 2691 7503; zuyanan@szu.edu.cn), ref: SZU_PSY_2026_082

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Blinded (masking used)

Control
Uncontrolled

Assignment
Crossover

Purpose
Health services research, Prevention

Study type(s)

Health condition(s) or problem(s) studied
Psychological stress, anxiety and depression symptoms, and emotional problems among incarcerated adults

Interventions
Design and arms: This is a cluster randomised controlled trial with prison districts (wards) as the unit of randomisation. Four prison districts are allocated to one of four parallel arms: (1) no-treatment control receiving routine prison management only; (2) music regulation; (3) mind-body regulation; (4) combined music and mind-body regulation.

Interventions: Music regulation uses relaxing music. Mind-body regulation uses a neutral, text-guided mindfulness/body-scan audio (containing no emotion-inducing or traumatic material), together with gentle stretching exercise breaks during the daily routine and a brief bedtime practice in selected groups; the combined arm receives both. Sessions are delivered within the usual prison management framework by designated playback operators, and prison officers

record only the audio codes. The control district continues routine management without the study interventions.

Randomisation and allocation concealment: An independent statistician generates the randomisation sequence by computer; the sequence is kept sealed and is revealed only after enrolment and baseline assessment of each prison district are completed.

Schedule: The study lasts 16 weeks. Week 1 is baseline assessment; the intervention begins in week 2, and the same assessments are repeated for all participants at weeks 6, 11 and 16. Each participant completes paper-based questionnaires (about 20 minutes) at the participating prison.

Blinding: Outcome assessors (questionnaires) are unaware of group allocation; data-entry and statistical-analysis personnel access only de-identified data and group codes. Because the interventions are identifiable, playback operators know their own district's content but take no part in outcome assessment and do not explain allocation; prison officers record only audio codes and are not informed of the specific intervention.

Daily diary (process measure): In addition to the scheduled questionnaires, participants complete a short daily paper diary recording sleep and mood, which is collected weekly.

Intervention Type
Behavioural

Primary outcome(s)
1. Emotional distress (depression, anxiety and stress symptoms) measured using Chinese version of the 21-item Depression Anxiety and Stress Scales (DASS-21) at baseline (week 1) and weeks 6, 11 and 16

Key secondary outcome(s)
1. Sleep quality measured using Pittsburgh Sleep Quality Index (PSQI) at baseline (week 1) and weeks 6, 11 and 16

2. Dispositional mindfulness measured using Mindful Attention Awareness Scale (MAAS) at baseline (week 1) and weeks 6, 11 and 16

3. Interoceptive awareness measured using Multidimensional Assessment of Interoceptive Awareness (MAIA) at baseline (week 1) and weeks 6, 11 and 16

4. Energetic and tense arousal measured using Activation-Deactivation Adjective Check List (ADACL) at baseline (week 1) and weeks 6, 11 and 16

5. Positive and negative affect measured using Positive and Negative Affect Schedule (PANAS) at baseline (week 1) and weeks 6, 11 and 16

6. Ruminative thinking measured using Ruminative Responses Scale (RRS) at baseline (week 1) and weeks 6, 11 and 16

7. Shame and guilt proneness measured using Test of Self-Conscious Affect (TOSCA), Chinese self-report version at baseline (week 1) and weeks 6, 11 and 16

Completion date
30/10/2027

Eligibility

Key inclusion criteria
1. Chinese adults aged 18 to 65 years (including young and middle-aged adults) detained in one of the four participating prison districts of the participating prison
2. Able to understand the questionnaire content and to complete paper-based assessments independently
3. Willing to participate voluntarily and having signed the informed consent form

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
65 Years

Sex
Male

Total final enrolment
560

Key exclusion criteria
1. Major physical or mental-health conditions, ascertained through prison records and self-report
2. Less than 7 months of remaining sentence
3. Scheduled for parole or transfer out of the prison district within the following 7 months

Date of first enrolment
19/10/2026

Date of final enrolment
20/10/2026

Locations

Countries of recruitment
China

Sponsor information

Organisation
Shenzhen University

ROR
https://ror.org/01vy4gh70

Funder(s)

Funder type

Funder Name
National Natural Science Foundation of China

Alternative Name(s)
Chinese National Science Foundation, Natural Science Foundation of China, National Science Foundation of China, NNSF of China, NSF of China, National Nature Science Foundation of China, Guójiā Zìrán Kēxué Jījīn Wěiyuánhuì, , NSFC, NNSF, NNSFC

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
China

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?
Participant information sheet			13/10/2026	No	Yes