

Exploration of brain activity in response to Emotion regulating improvisational music therapy for young adult students with depressive symptoms: An fMRI multiple-case study

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Ethical review	Approved WMO
Status	Recruiting
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON55938

Source

ToetsingOnline

Brief title

Ex-fMRI-EIMT

Condition

- Other condition

Synonym

depressive symptoms; depressive complaints

Health condition

psychische klachten

Research involving

Human

Sponsors and support

Primary sponsor: Zuyd Hogeschool

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Brain activity, Emotion regulation, fMRI, Music therapy programme EIMT

Outcome measures

Primary outcome

The primary study parameter is functional connectivity between brain regions known to be part of emotion regulation networks.

Secondary outcome

Additional parameters include depressive symptoms, emotion regulation, positive and negative affect, as well as experiences with fMRI, applied questionnaires and interviews, and the EIMT music therapy programme.

Study description

Background summary

Depression is a serious problem, particularly among young adult students. Therefore, the music therapy programme Emotion-Regulating Improvisational Music Therapy (EIMT) has been developed to prevent depressive disorders. Young adult students in a higher education context can benefit from this programme by experiencing fewer depressive symptoms and improving their ability to regulate emotions in stressful situations, resulting in reduced negative feelings after participating in the EIMT music therapy programme. Further research is needed to understand the mechanisms of EIMT, including changes in brain activity in young adult students following the EIMT music therapy programme. It is hypothesized that the brain activity of these students will change after participating in the EIMT music therapy program.

Study objective

The main aim of the research is to enhance the understanding of brain activity in young adult students after participating in the music therapy programme EIMT. Additionally, this study aims to formulate hypotheses for future large-scale fMRI research on the effectiveness of arts therapy on emotion regulation. Secondary objectives include gaining insights into the effects of the EIMT music therapy programme on depressive symptoms, emotion regulation, positive and negative affect, as well as understanding the experiences with the applied data collection methods and the EIMT music therapy programme.

Study design

Multiple-case design study with pre and post fMRI measurements; quantitative questionnaires on depressive symptoms and emotion regulation before and after the music therapy program EIMT, weekly questionnaires on positive and negative affect, an individual interview after the EIMT music therapy programme regarding experienced depressive symptoms, emotion regulation, and positive and negative affect, as well as experiences with the applied data collection methods and the EIMT music therapy programme.

Intervention

All participants included in the study will receive the EIMT music therapy programme, which is an individual, ten-week programme conducted weekly, totaling 10 sessions, each lasting one hour.

Study burden and risks

The number of sessions is minimized, with a total time commitment of 15 hours and 22 minutes for the student. The majority of this time (10 hours) is dedicated to participating in the EIMT music therapy programme. The remaining time is allocated to completing questionnaires (1 hour and 22 minutes), participating in two interviews (two times 1 hour; in total 2 hours), and undergoing two fMRI scans (once before and once after the EIMT music therapy programme; in total 2 hours). These measurements are spread over time. Due to this distribution and the expectation of the student benefiting from the programme, the burden is assessed as minimal. There is a chance that the student may not experience any benefit or may experience increased depressive symptoms. Based on previous studies on music therapy and a prior study on the EIMT music therapy programme among young adults, there is no indication of experiencing more symptoms or adverse effects. Given the limited additional burden for the student in participating in the current study compared to the standard approach (EIMT combined with questionnaires), offering participation in the EIMT music therapy programme and the study to selected students seems

justified.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adolescents (16-17 years)

Adults (18-64 years)

Inclusion criteria

- Dutch speaking students aged 16 to 40 years (Vereniging Hogescholen, 2018)
- at least mildly depressive symptoms (IDS SR > 13), based on self reporting with the Inventory of Depressive Symptoms (IDS SR; Rush et al., 1986; Rush et al., 1996). In case of doubts about symptomatology, a psychologist will be consulted.
- Musical experience is not a prerequisite for participation.

Exclusion criteria

- previously diagnosed with major depressive disorder
- history of repeated suicidal behavior or psychosis
- receives music therapy elsewhere or other treatment
- no minimally mild depressive symptoms (IDS SR < 14)
- a contra-indication for MRI.

Study design

Design

Study type: Interventional

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Prevention

Recruitment

NL

Recruitment status: Recruiting

Start date (anticipated): 05-04-2024

Enrollment: 5

Type: Actual

Ethics review

Approved WMO

Date: 14-12-2023

Application type: First submission

Review commission: METC Z: Zuyderland-Zuyd (Heerlen)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL85528.096.23