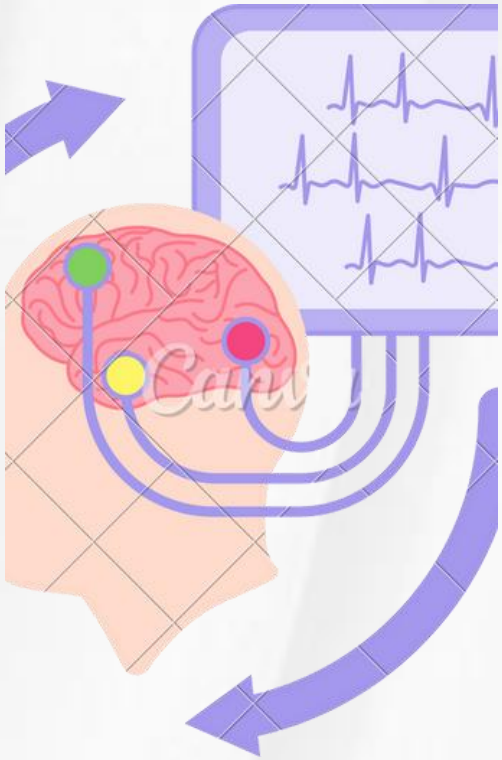
NEUROFEEDBACK -ASSISTED MINDFULNESS MEDITATION STUDY

JUNE- JULY 2022



OBJECTIVES

The primary goals of the study using neurofeedback to promote mindfulness meditation were:

- to research if practicing mindfulness meditation with neurofeedback can result in better outcomes for mental health.
- to comprehend the core principles of mindfulness meditation supported by neurofeedback.
- in order to assess any potential advantages of real-time EEG input during meditation sessions.

METHODS

In order to measure their brainwave activity, participants in the study undertook a series of meditation sessions while wearing EEG headsets. I was in charge of setting up the EEG apparatus, making sure the electrodes were positioned correctly, and keeping an eye on the data quality throughout the sessions. I also helped with the distribution of pre- and post-session questionnaires to gauge participants' experiences with meditation and their mental health, and I encoded their responses for further research.

TOOLS

1. EEG System

An EEG system was used to record meditation brainwaves. Setup, electrode placement, and data accuracy checks were essential.

2. Data management software

Data management software which organizes and stores participants' information securely was used.

3. Surveys

An online survey platform which gathers and analyzes pre- and post-session survey data on meditation and mental health was utilized.

ROLE

- assisting in the collecting of data from study participants' brainwaves utilizing electroencephalography (EEG).
- assisting with scheduling, communication, and participant recruiting.
- supporting the installation and upkeep of the EEG apparatus.
- logging survey responses from participants.
- ensuring adherence to ethical standards and study protocol.

This project was designed and led by Jeremy Viczko in partial fulfillment of doctoral degree requirements, supervised by Dr. Colette Smart, and funded by NSERC CGS-D award"

PROJECT'S SUMMARY

The goal of the study was to learn more about the underlying mechanisms of mindfulness meditation and its effectiveness in improving mental health outcomes. In order to improve participants' meditation experiences, the research used EEG technology to track brainwave activity during meditation sessions. Participants