TREATMENT INNOVATION & COLLABORATION

CHAIR: SHANNON BELL, GROUP MANAGER, SPECIALIST PROGRAMS, UNITING

1. Providing dual diagnosis treatment to the highest risk offenders in the community: more than counselling
2. Does CBD help improve mood and sleep in daily cannabis users?
3. Walk-in, Walk with: Same day single session work in Thorne Harbour Health's LGBTIQ+ Walk-in AOD Program

vaada Shifting Landscapes
CONFERENCE
FEBRUARY 9-10 2023
Building the Holistic Treatment Mosaic

Does CBD help improve mood and sleep in daily cannabis users?

Vårin Eddy, GVADS
Sharon Hall, GVADS

Does Cannabidiol help improve mood and sleep in daily cannabis users?

Goulburn Valley Health and Goulburn Valley Alcohol and Drug Service

Presented by

Sharon Hall & Vårin Eddy, February 2023

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Welcome (Womindjeka)

We wish to acknowledge the Traditional Owners and Custodians of this land on which we currently meet. Today we meet on Wurundjeri land of the Kulin nation.

We acknowledge the Aboriginal and Torres Strait Islander people and their ongoing connection to land, water and community.

We pay our respects to the Elders past, present and emerging and commit to building a brighter future together.

We also wish to acknowledge the diverse lived and living experiences in the room today.

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Presenter Bio's

Sharon Hall

- Sharon has been and Alcohol and Other Drug (AOD) nurse since. She specialised in mental health nursing before switching to AOD
- Sharon has been actively involved in the creation of the JAMH Project ECHO*
- Her professional interests include Attention Deficit Hyperactive Disorder (ADHD) in the presence of substance use as well as utilising mindfulness as a treatment option

Vårin Eddy

- Vårin joined Goulburn Valley Alcohol and Drug Service (GVADS) in 2019
- She holds a Bachelor of Nursing, Postgraduate Diploma in Rural Critical Care and Graduate Certificate in Drug and Alcohol Studies
- Vårin has commenced her studies to become a AOD Nurse Practitioner
- Vårin has been involved in creating the JAMH Project ECHO*

*JAMH Project ECHO - Joint Addiction and Mental Health Project Extension for Community Healthcare Outcomes

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Overview

- Cannabis compounds and characteristics
- Does Cannabidiol (CBD) help improve mood and sleep in daily cannabis users?
- Adaptive trial of CBD for depression and sleep in the setting of Cannabis Misuse Disorder
  - Research team
  - About the trial
  - Objectives
  - Expected outcomes
  - Trial cohort
  - Recruitment and retention
  - Statistical outcomes
- Summary

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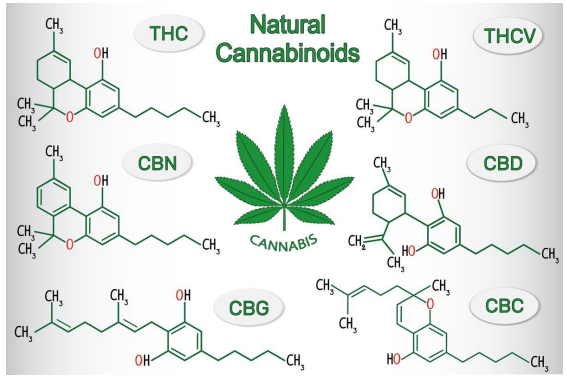
Cannabis produces complex set of bioactive molecules

Cannabinoids >115

- CBC Cannabichromene
- CBCA Cannabichromene acid
- CBD Cannabidiol
- CBDA Cannabidiolic acid
- CBG Cannabigerol
- CBGA Cannabigerolic acid
- THC Tetrahydrocannabinol
- THCA Tetrahydrocannabinolic acid



Terpenes >100

- Lipophiloic
- Odour and flavour
- Selection narcotic strains
- Anti-cancer, immunostimulating, anti flammatory

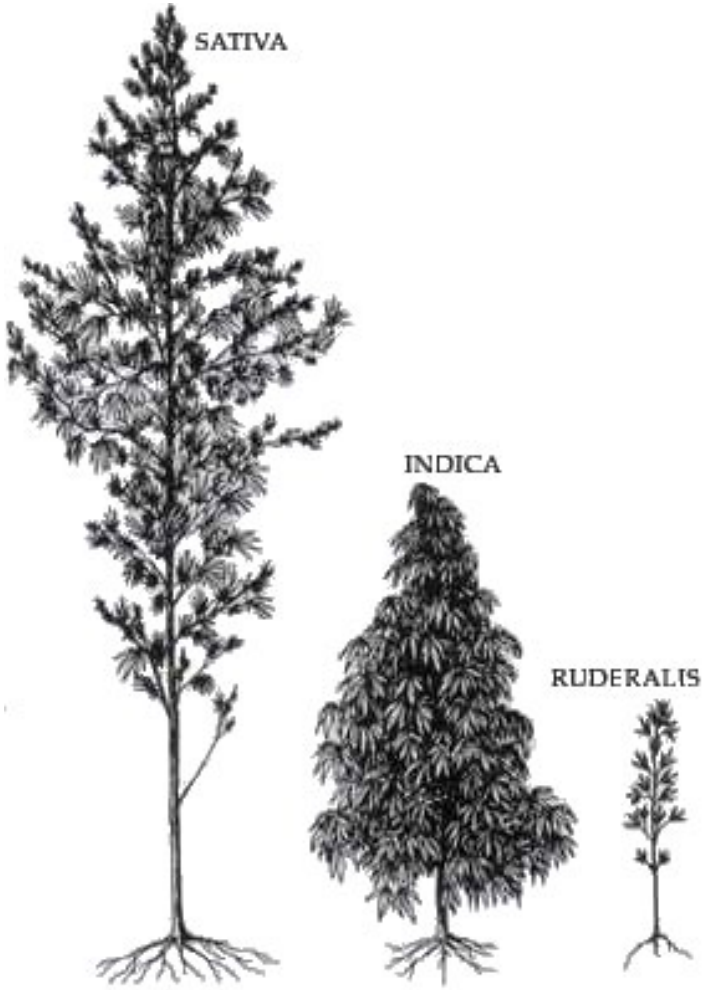
Phenolic Compounds

- 20 flavonoids, lignans, 19 stilbenes

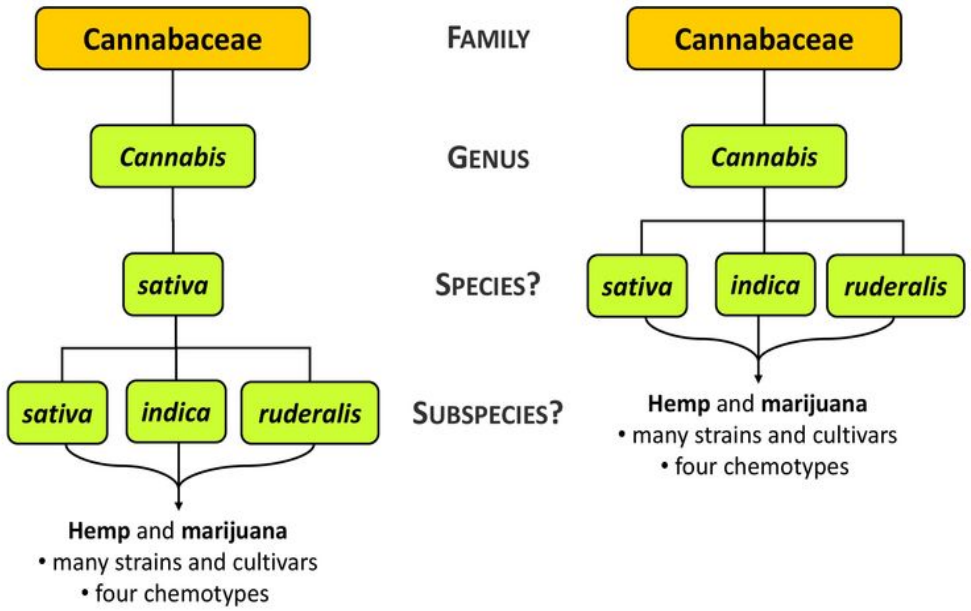
APLIKAČNÍ LABORATOŘ
pro zemědělský výzkum
Ústavu experimentální botaniky AV ČR, v. v. i. v Olomouci

Adapted from work of Jan Šafář
Institute of Experimental Botany, Czech Republic

Characterization of Cannabis plants



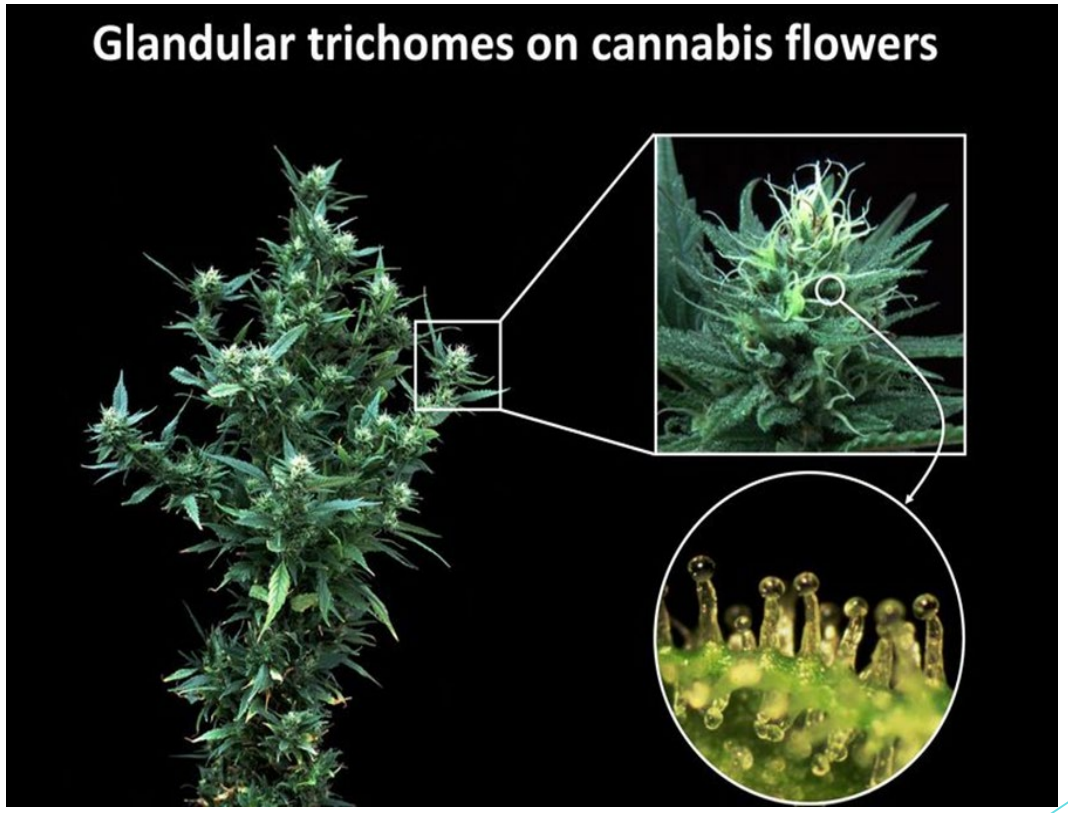
Classification of *Cannabis* is (still!) unclear



Adapted from work of Jan Šafář
Institute of Experimental Botany, Czech Republic

http://olomouc.ueb.cas.cz/

Localisation of cannabinoids and terpernes



Adapted from work of Jan Šafář
Institute of Experimental Botany, Czech Republic

Does CBD help improve mood and sleep in daily cannabis users?

- Clients accessing GVADS seeking help for Cannabis Misuse Disorder frequently say that they cannot stop drug use because they need cannabis to sleep
- Cannabis contains chemicals including cannabidiol (CBD) which has the potential to improve mood, enhance sleep and reduce cannabis use. CBD does not cause the ‘high’ normally associated with cannabis use
- In 2021 the Therapeutic Goods Administration (TGA) has approved low dose CBD for over the counter sale when products are registered. Other cannabis products require a permit and prescription
- We set out to test whether low doses (200 mg) or high doses (400mg) of CBD were superior to placebo in the treatment of insomnia and have the ability to improve mood in cannabis smokers

Adaptive trial of Cannabidiol (CBD) for depression and sleep in the setting of Cannabis Misuse Disorder

- **Research team**
  Professor Edward Ogden PSM
  Professor Luke Downey
  Professor Denny Meyer
  Sharon Hall
  Vårin Eddy
  Joseph Carey
  Alexandra Ogden
  Sharon Clark
  Coco Piesse
- **Research sponsor**
  Barbara Dicker Brain Sciences Foundation

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About the trial

- Feasibility study for a larger randomised study
- Explore the safety and efficacy in the management of Cannabis Use Disorder
- Utility of CBD as a treatment for mood and sleep in Cannabis Use Disorder

- A further aim of the study was to assess
  - Ease of recruitment
  - Retention rate
  - Impact of CBD on participant mental health outcomes and well-being
  - Impact of CBD on the quantity and frequency of illicit cannabis use

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Objective

The trial aimed to demonstrate whether treatment with CBD products

- Improves mood and sleep over 12 weeks
- Reduces cravings for cannabis
- Reduces self-reported cannabis use
- Improves mood and quality of life in cannabis smokers seeking treatment
- Investigate which dose is best tolerated and most effective

The results of this study will inform application for future funding to develop a treatment protocol for CBD in Cannabis Use Disorder

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Expected Outcomes

Primary Outcome

- Assess the effect of two different doses of CBD compared with placebo on mood (DASS-21) and sleep (Pittsburgh Sleep Quality Index) over a 12 week period

Secondary Outcome

- Reduces cravings and the level of self-reported illicit cannabis use
- Improves quality of life in cannabis smokers seeking treatment
- Investigate the association between the treatment and quality of life measured by the World Health Organization Quality of Life Scale
- Determine whether one of the treatments is better tolerated with fewer adverse effects

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Trial Cohort

- 33 participants
- Any gender >18 years and <66 years
- DSM-V criteria for moderate to severe Cannabis Use Disorder
- Free from neurological conditions, suicidal depression or acute psychosis
- Not currently taking medications (e.g. psychotropic) that could affect the outcome of the study
- Randomised to receive either placebo, low dose CBD or high dose CBD

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Recruitment and retention

Recruitment

- Lots of interest
- Recruitment relatively easy
  - Current GVADS clients
  - Social media
  - GP referrals
  - Print media
  - Radio
  - Promotion within GV Health

Retention

- Of 33 participants, 79% (26) completed phases 1 through 3
- 33% (11) of participants completed final follow up

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1800 222 582

Do you have trouble with mood or sleep?

GV Alcohol & Drug Service are conducting a confidential and annonymous trial of CBD for depression and/or sleep in Cannabis users.

For further information please contact:
GV Alcohol & Drug Service
1800 222 582

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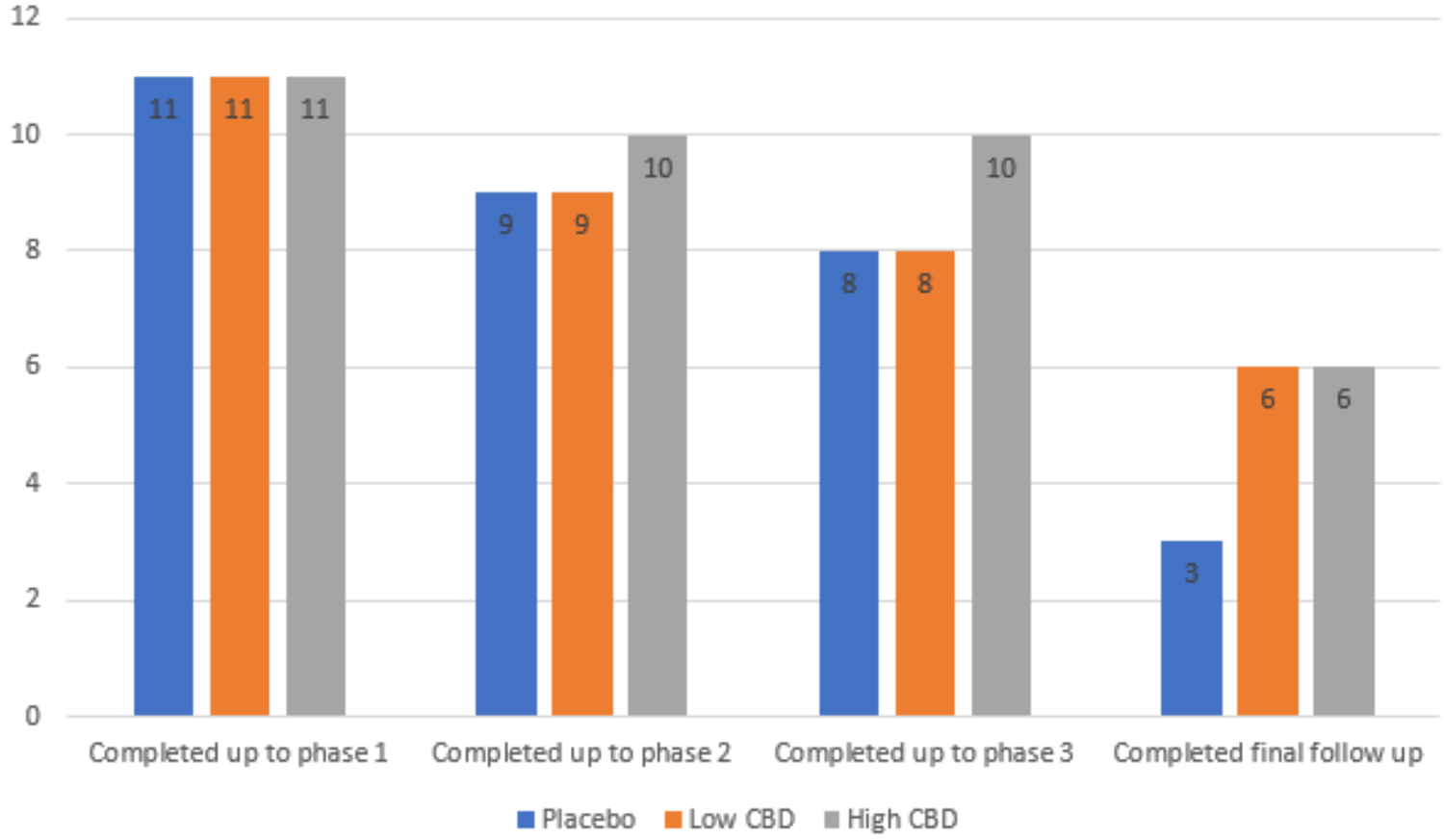
Completion rates



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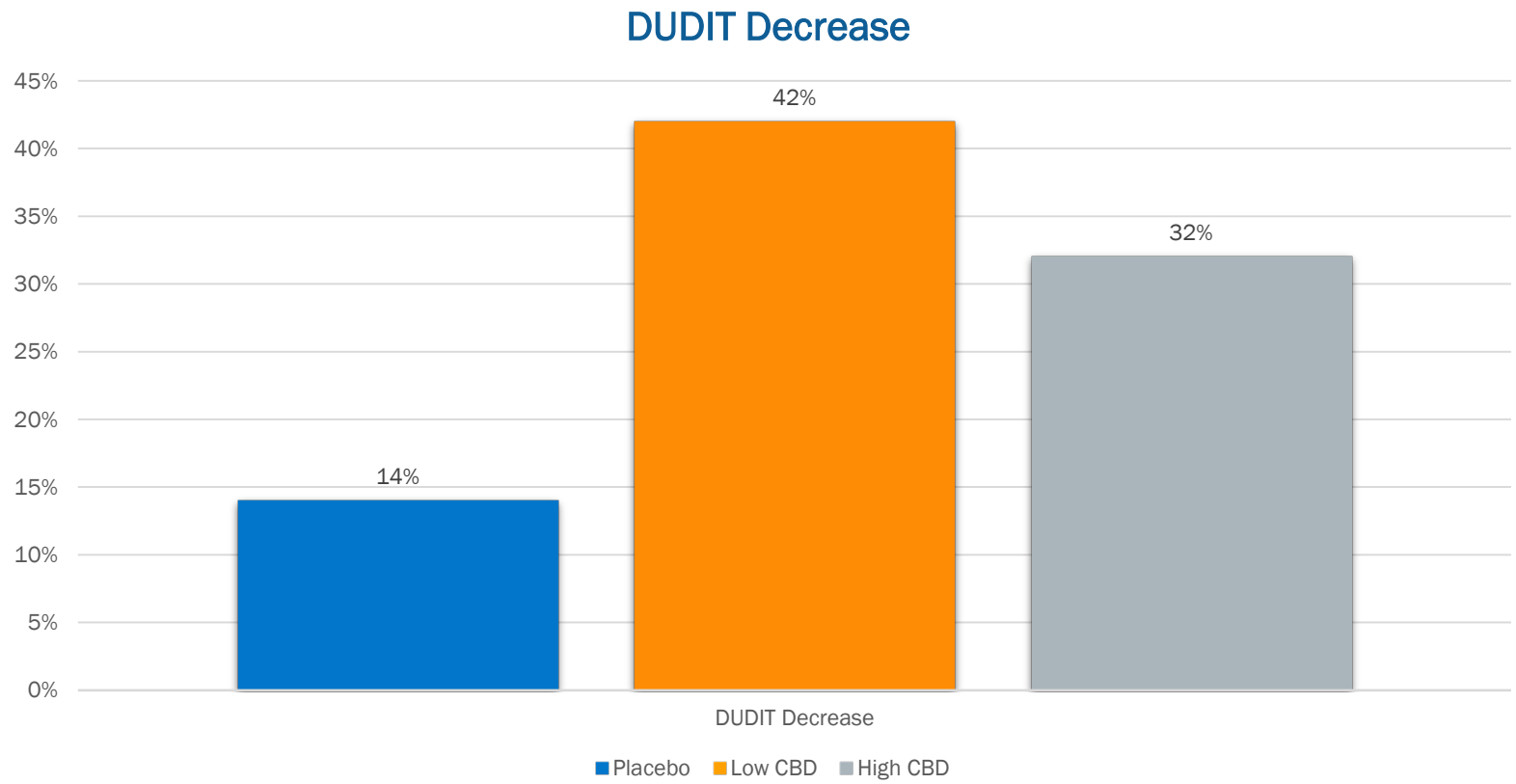
Inverted U dose response



Zuardi, A. W., Rodrigues, N. P., Silva, A. L., Bernardo, S. A., Hallak, J. E., Guimarães, F. S., & Crippa, J. A. (2017). Inverted U-shaped dose-response curve of the anxiolytic effect of cannabidiol during public speaking in real life. *Frontiers in pharmacology*, 259.

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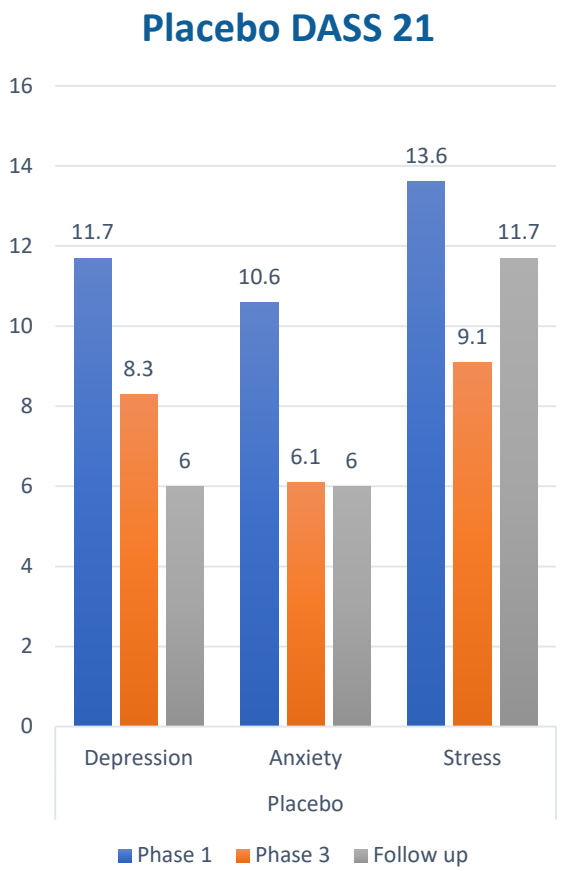
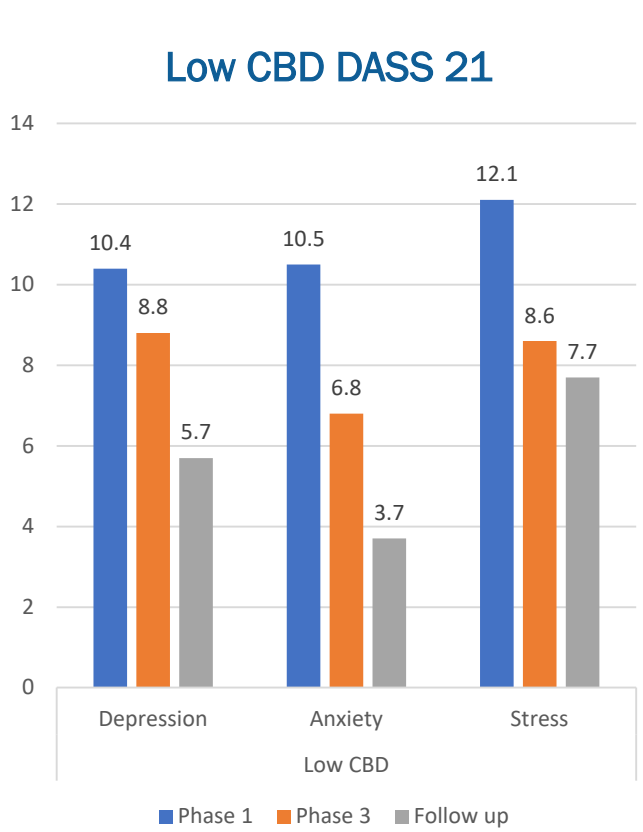
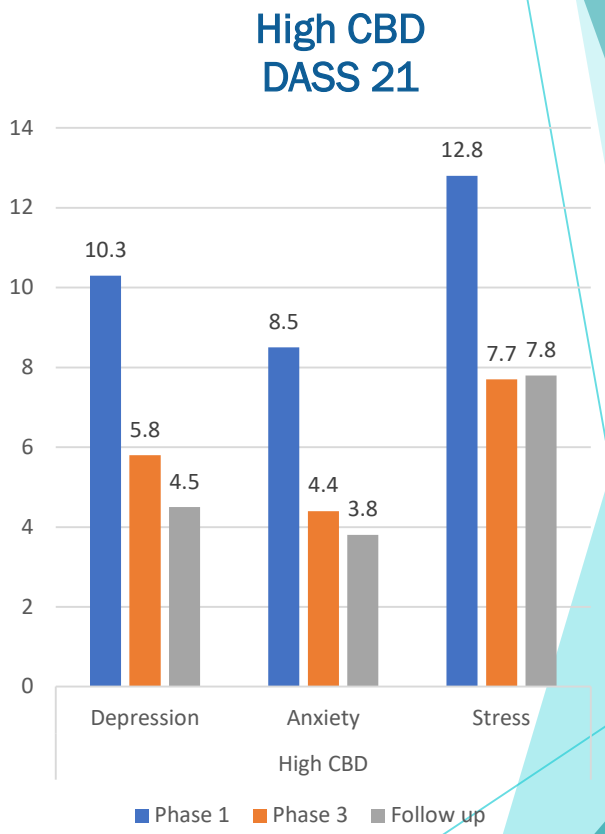
Reduction in DASS 21 Scores







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Summary

- In summary, the trial found cannabis use and cannabis dependency to decrease from baseline to post treatment over the course of the randomised control trial
- No associations were found between cannabis use, cannabis dependency or cannabis cravings and treatment group allocation
- The low number of participants limited the trial in its ability to draw conclusions
- This trial highlights the complexity of pharmacotherapy for Cannabis Use Disorder and warrants study replication on a larger scale
- Further analysis using a broader scope of data is required in order to inform whether or not CBD is an effective treatment intervention for individuals living with Cannabis Use Disorder

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