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Mobile mental health app usability test

Submission date	Recruitment status	[ ] Prospectively registered
17/08/2025	No longer recruiting	[ ] Protocol
Registration date	**Overall study status**	[ ] Statistical analysis plan
20/08/2025	Completed	[ ] Results
Last Edited	**Condition category**	[ ] Individual participant data
20/08/2025	Mental and Behavioural Disorders	[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
Mobile mental health apps present unique opportunities to democratize mental health care by expanding access to services, especially in underserved populations. However, evidence-based mobile mental health apps developed in the Ethiopian setting are scarce; therefore, this study assesses the feasibility and effectiveness of a mobile mental health solution app, a locally adapted app addressing depression and anxiety. This study aims to determine the feasibility and effectiveness of a newly developed mobile mental health solution app among individuals with depression and anxiety in Ethiopia.

Who can participate?
Patients aged 20 to 45 years with depression and anxiety

What does the study involve?
Participants were requested to complete several tasks, which included:
1. Accessing mental health information (covering concepts like depression, anxiety, and psychiatric emergencies)
2. Self-assessment by answering 21 multiple-choice questions to gauge levels of depression, anxiety, and psychological distress
3. Self-care techniques (such as mindfulness, meditation, progressive muscle relaxation, and breathing exercises)
4. Applying psychological first aid techniques
5. Reviewing mental well-being tips
6. Recording medication details (including type, dosage, and frequency) and setting reminders for medication and appointments
7. Updating their profiles and medication information in the app
8. Tracking and reviewing their symptoms and medication usage

Upon completion of the 4-week usage period, participants were asked to complete a paper-based survey during a scheduled appointment.
What are the possible benefits and risks of participating?
Possible benefits could be gaining insight or being aware of depression and anxiety. Risk could be the time devoted to using the app.

Where is the study run from?
Felege Hiwot Comprehensive Specialized Hospital (Ethiopia)

When is the study starting and how long is it expected to run for?
January 2025 to June 2025

Who is funding the study?
University of Wollongong (Australia)

Who is the main contact?
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Contact information

Type(s)
Public, Scientific, Principal investigator

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Study information

Scientific Title
Usability evaluation and preliminary efficacy of mobile mental health solution apps in low-income settings: pre- and post-trial

Study objectives
To determine the usability and efficacy of a newly developed mobile mental health solution app among individuals with depression and anxiety in Ethiopia

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 04/07/2025, University of Wollongong Human Research Ethics Committee (University of Wollongong, Wollongong, 2522, Australia; +61 (0)2 4221 3386; uow-humanethics@uow.edu.au), ref: 2023/122

Primary study design
Interventional

Study design
Usability test, preliminary pre- and post-test design

Study type(s)
Other, Efficacy

Health condition(s) or problem(s) studied
Depression and anxiety

Interventions
Interventions were conducted for 4 weeks. Participants were requested to complete several tasks, which included:
1. Accessing mental health information (covering concepts like depression, anxiety, and psychiatric emergencies)
2. Self-assessment by answering 21 multiple-choice questions to gauge levels of depression, anxiety, and psychological distress
3. Self-care techniques (such as mindfulness, meditation, progressive muscle relaxation, and breathing exercises)
4. Applying psychological first aid techniques
5. Reviewing mental well-being tips
6. Recording medication details (including type, dosage, and frequency) and setting reminders for medication and appointments
7. Updating their profiles and medication information in the app
8. Tracking and reviewing their symptoms and medication usage

Upon completion of the 4-week usage period, participants were asked to complete a paper-based survey during a scheduled appointment.

Intervention Type
Device

Phase
Phase I

Drug/device/biological/vaccine name(s)
Mobile Mental Health app usability test

Primary outcome(s)
1. Ease of use, satisfaction with the interface and usefulness assessed using the 18-item self-administered Mobile App Usability Questionnaire (MAUQ) at the end of the intervention
2. Depression, anxiety, and stress assessed using the Depression Anxiety Stress Scales – Short Form (DASS-21) scale before and after the intervention

Key secondary outcome(s)
Mental health knowledge evaluated using a 20-item mental health knowledge questionnaire before and after the intervention

Completion date
20/06/2025

Eligibility

Key inclusion criteria
1. Individuals who self-reported having a diagnosis of major depressive disorder or anxiety disorder. In addition, the Depression Anxiety Stress Scales-21 (DASS-21) was used to assess the level of depression, anxiety, and stress. Therefore, study participants with a mild-moderate level of depression (10-20), anxiety (8-14), or stress (15-25) were included in the study
2. Participants who consented to use the Mobile Mental Health Solution App for 4 weeks
3. Individuals who were receiving follow-up treatment for depression or anxiety during the data collection period
4. Individuals who had at least 3 months of follow-up or had received treatment for at least three visits were included in the study

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
20 Years

Upper age limit
45 Years

Sex
All

Total final enrolment
40

Key exclusion criteria
1. Individuals who had other mental disorders or comorbidities were excluded from the study.
2. Individuals with a Mini-Mental State Examination questionnaire score of less than 24 were excluded from the study

Date of first enrolment
10/05/2025

Date of final enrolment
10/06/2025

Locations

Countries of recruitment
Ethiopia

Study participating centre
Felege Hiwot Comprehensive Specialized Hospital
Shmbit Kebele 13
Bahir Dar
Ethiopia
47

Sponsor information

Organisation
University of Wollongong

ROR
https://ror.org/00jtmb277

Funder(s)

Funder type
University/education

Funder Name
University of Wollongong

Alternative Name(s)
University of Wollongong, Australia, UOW

Funding Body Type
Government organisation

Funding Body Subtype
Universities (academic only)

Location
Australia

Results and Publications

Individual participant data (IPD) sharing plan

The data-sharing plans for the current study are unknown and will be made available at a later date

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Study website	Study website	11/11/2025	11/11/2025	No	Yes