CIDI App Documentation

About Document

This documentation outlines the logic the CIDI app uses to determine whether an individual meets the criteria for Major Depressive Disorder (MDD) and 12-month prevalence Major Depressive Disorder (MDD-12) based on their responses to the Depression Questionnaire. A debugging guide for known app issues is also included and can be found on Page 6.

Objective

The objective of this documentation is to understand how the CIDI app evaluates criteria to determine MDD and MDD-12 scores and to be able to debug any issues that may arise during its use.

Introduction

To classify an individual with Major Depressive Disorder (MDD), the app checks if four specific criteria (A, C, D, and E) are met. Each criterion that is met is marked with a value of 1. If all four criteria are marked with a 1, the app classifies the individual as having MDD. To classify an individual with a 12-month prevalence of Major Depressive Disorder (MDD-12), the individual must have MDD and meet additional criteria.

Diagram of Criteria for MDD and MDD-12

Criteria	MDD	MDD-12	Reference Page
A	1	1	2
C	1	1	3
D	1	1	3
E	1	1	4
Additional	0	1	5
Conclusion	MDD Present	MDD-12 Present	-

Legend: 1 represents Yes/Present

Criteria A: Core Symptoms of Depression

This criterion assesses the presence of core symptoms of depression, including a depressed mood, loss of interest, significant weight or appetite changes, sleep disturbances, psychomotor changes, fatigue, feelings of worthlessness or guilt, concentration difficulties, and thoughts of death.

All conditions below must be present to proceed:

1. Either SC21, SC22, or **SC23** must be **Yes (1)** to proceed beyond SC25, else questionnaire will end without reaching question D1 or beyond.

2. D21 must be Yes (1) to continue the questionnaire and lead to questions to determine depression; the questionnaire will skip past all questions to D87 if 'Yes' is NOT selected for D21.

Condition dsmmdea1:

If **D22b**, **D22d**, or **D39** is FROM 14 to 99998 days, **AND** any of **D24a**, **D24b**, **D24c**, **D24d**, **D24e**, or **D24f** is 1 (YES), **THEN** set **dsmmdea1** to 1 (Yes).

Condition dsmmdea2:

- Initialize **d_mdea** to 0.
- Increment **d_mdea** for each Yes condition from **D24a** to **D24f**.
- Increment **d_mdea** for Yes conditions in **D24e** or **D24f**.
- Increment **d_mdea** for:
    o **D26a** is 1 or **D26f** is 10 to 998 pounds,
    o **D26b** is 1 or **D26d** is 10 to 998 pounds,
    o **D26g** is 1,
    o **D26h** is 1,
    o **D26m** is 1,
    o **D26o** is 1,
    o **D26j** is 1,
    o **D26v** is 1,
    o **D26p**, **D26r**, or **D26s** is 1,
    o **D26aa**, **D26bb**, **D26cc**, **D26dd**, or **D26ee** is 1.

If **d_mdea** is more than 5, set **dsmmdea2** to 1 (Yes).

Criteria A condition:

If both **dsmmdea1** and **dsmmdea2** are 1, then **Criteria A** = 1 (Yes).

Criteria C: Significant Distress or Impairment

This criterion evaluates whether the symptoms cause significant distress or impair important areas of functioning.

Condition dsmmdec1:

If *any* of the following conditions are true:

- **D17** is 2 (MODERATE), 3 (SEVERE), or 4 (VERY SEVERE),
- **D18** is 1 (OFTEN) or 2 (SOMETIMES),
- **D19** is 1 (OFTEN), 2 (SOMETIMES), or 3 (RARELY),
- **D24b** is Yes (1),

Then set **dsmmdec1** to 1 (Yes).

Condition dsmmdec2:

If *any* of the following conditions are true:

- **D28** is 3 (Some), 4 (A lot), or 5 (Extremely),
- **D28a** is 1 (OFTEN), 2 (SOMETIMES), or 3 (RARELY),
- At least one of **D66a**, **D66b**, **D66c**, or **D66d** is FROM 4 and 10,

Then set **dsmmdec2** to 1 (Yes).

Condition C condition:
If either **dsmmdec1** or **dsmmdec2** is 1, then **Criteria C** = 1 (Yes).

Criteria D: Exclusion of Substance or Medical Condition

This criterion ensures that the symptoms are not due to a substance or a medical condition.

If **all** of the following conditions are true:

- **D9b** is NOT 1 (Yes) AND **D29c1** is NOT ("." or 1)
- **D29a** is NOT "." OR **D29c1** < 7

Then **Criteria D** = 1 (Yes).

Criteria E: Exclusion of Other Disorders

This criterion examines if the symptoms are not better explained by another disorder.

Condition dsmmdee1:

If 'Death of loved one' (3) is **NOT** selected for D23a (**D23a01** to **D23a16)**,
then **dsmmdee1** to 1 (Yes).

Condition dsmmdee2:

If **D22bt** or **D22dt** is FROM 61 and 99997,

then set **dsmmdee2** to 1 (Yes).

Condition mdee3a:

- If **D19** is 1,
- Or **D28** is 4 (A LOT) or 5 (EXTREMELY),
- Or **D28a** is 1 (OFTEN) or 2 (SOMETIMES),
- Or any of **D66a**, **D66b**, **D66c**, or **D66d** is FROM 7 to 10,
- Or **D68** is FROM 10 and 997 (DAYS),

then set **mdee3a** to 1.

Condition mdee3b:

If **D26v** is 1,

then set **mdee3b** to 1.

Condition mdee3c:

- If **D26cc** is 1,
- Or **D26dd** is 1,
- Or **D26ee** is 1,

then set **mdee3c** to 1.

Condition mdee3e:

- If **D26l** is 1,
- Or **D26m** is 1,

then set **mdee3e** to 1.

Criteria E condition:

If either **dsmmdee1**, **dsmmdee2**, **mdee3a, mdee3b**, **mdee3c**, or **mdee3e** is 1, then set **Criteria E** = 1 (Yes).

MMD condition:

If **Criteria A, C, D, and E** all equal 1, then **dsm_mddh** is set to 1, indicating a diagnosis of depression.

Criteria for MMD-12

For MMD-12 to be classified as 1 (Yes), all criteria must be met.

Criterion 1:

MDD must be 1

Criterion 2: Either of the following conditions are true

Condition A:

D38 equals 1 (Yes).

Condition B:

SC1 is **NOT** [998 (Don't Know) or 999 (Refused) or '.' (Empty)]

AND at least one of the following must equal SC1:

> ➢ D37a
> ➢ D37b
> ➢ D38c
> ➢ IF D22 is 1, THEN lowest value out of questions [D22a, D37a, D37b, D37b1]
> ➢ IF (D22 is 5 or 8 or 9), THEN lowest value out of questions [D22c, D37a, D37b, D37b1]
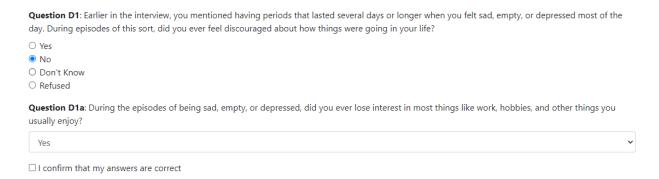> ➢ IF (D38 is 5 or 8 or 9), THEN D38c
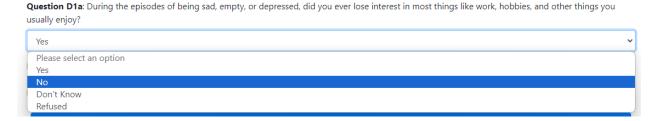
Debug Guide

General Debugging:

If questions are glitching out due to changing selections, toggle between options to debug.

Bug when changing root question:

When a question on top is changed (D1), the following sequence of questions will hide again. The question triggered directly below (D1a) still retains the selection, however, the question that should be triggered for 'Yes' in D1a is hidden.

Question D1: Earlier in the interview, you mentioned having periods that lasted several days or longer when you felt sad, empty, or depressed most of the day. During episodes of this sort, did you ever feel discouraged about how things were going in your life?

○ Yes
● No
○ Don't Know
○ Refused

Question D1a: During the episodes of being sad, empty, or depressed, did you ever lose interest in most things like work, hobbies, and other things you usually enjoy?

Yes	⌄

☐ I confirm that my answers are correct

To resolve this, select another option that is not the same value currently displayed for D1a. For this case, I select No. Then, select Yes again and this should trigger the question that should show from selecting 'Yes' for D1a.

Question D1a: During the episodes of being sad, empty, or depressed, did you ever lose interest in most things like work, hobbies, and other things you usually enjoy?

Yes	⌄

Please select an option
Yes
No
Don't Know
Refused

Ensuring required questions will appear:

For response-type questions, the next question will trigger automatically after a response is typed into the textbox and the user unselects from the textbox. But for the radio selection, some questions may not be triggered automatically as the 'Proceed' button needs to be pressed.

Question D12a: How long was the longest period of days you ever had when you were (sad/or/discouraged/or/uninterested) most of the day?
INTERVIEWER: "LESS THAN ONE DAY" CODE 0

Your response

● Don't Know
○ Refused

[Clear] [Proceed]

For good practice, its recommended to click on Proceed after filling in each response questions to ensure no questions are missed.