

CHRIS Study

Touchscreen – Center for Epidemiologic Studies Depression

Version 1.1
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1. Introduction

This module stores information related to the depression and mania of the participants, that was collected with the self-assessment questionnaire on a touchscreen.

Participants book a morning appointment at the CHRIS study center, ranging from 7.45 to 8.45 a.m. Each study participant is assigned a workflow at the reception. If there are ten study participants (maximum capacity), there are ten different workflows, marked with the letters from “A” to “K”. The current workflow is as follows: A-B-C-D-E-F-G-H-I-K. All the workflows can be found in the documentation of CHRIS Baseline/General information/Administrative data, in the file named “Workflows at baseline assessment”. The self-administered questionnaire is filled in always after the blood draw, for most before the interview (workflows B, C, E, F, H, I, L). For the remainder, the self-administered questionnaire is filled in just after the interview (workflows A, G) or after the interview and the ECG measurement (workflow D).

The Center for Epidemiologic Studies Depression (CES-D) was developed by Radloff and colleagues and it is a questionnaire designed to assess depressive symptomatology in the general population.

The instrument consists of 20 items, each with a 4-point response scale. The respondent in each item is asked to which extent they agree with that statement about themselves. It has four positively and 16 negatively worded items. The values of the scales are added up, resulting in a total score in the range between 0 and 60.

The CES-D mania is an extension of the CES-D core questionnaire, and it was later developed by Meyer and colleagues to assess manic symptomatic. The instrument consists of nine items, each with a 4-point response scale as the CES-D core. The answers to the items are added up, resulting in a total score in the range between 0 and 27.

The German translation was available for the whole CES-D, whereas the Italian translation was available only for the core CES-D. The IfB researchers translated the CES-D mania in Italian.

The CES-D questionnaire and its evaluation manual are available online (see References section).

2. History version changes

Version 1 of this module was in use between August 24th, 2011 and November 26th, 2015, whereas the second version of this module has been in use since November 27th, 2015.

The cleaning process added the variables x0ds21, x0ds21a, x0dc22, x0dc22a, x0dc40, and x0dc40a.

Version 1 to Version 2

variables added: x0ds31 - x0ds39 (manic/hypomanic symptoms)

question order changed: order changed (x0ds01- x0ds31- x0ds02- x0ds03- x0ds32- x0ds04- x0ds06- x0ds330-x0ds07- x0ds08- x0ds09- x0ds34- x0ds11- x0ds12- x0ds13- x0ds35- x0ds15- x0ds16- x0ds17- x0ds36- x0ds19- x0ds10- x0ds37- x0ds14- x0ds20- x0ds05- x0ds38- x0ds18- x0ds39)

3. Data cleaning

1. The main CHRIS dataset was loaded.
2. The CES-D items that were positively formulated, x0ds04, x0ds08, x0ds12, and x0ds16, had their answer values reversed to match the remainder CES-D items that were negatively formulated.
3. The number of CES-D missing items among x0ds01-x0ds20 was computed and explored. The 3 % of participants had between 1 and 4 items missing, only 0.3% had at least 10 items out of 20 missing. The 96.5% of participants had no CES-D item missing.
4. Every item variable x0ds01-x0ds20 had its missing observations set to "Unexpected missing" (-89).
5. The CES-D score variable was created and assigned the values:
 - a) "Unexpected missing" if any of the items among x0ds01-x0ds20 was "Unexpected missing",
 - b) The sum of x0ds01-x0ds20.It was saved as x0ds21.
6. Another variable based on the CES-D score was created with values:
 - a) "Unexpected missing" if any of the items among x0ds01-x0ds20 was "Unexpected missing",
 - b) "Yes" if x0ds21 was at least 16.
 - c) "No" if x0ds21 was below 16.It was saved as x0ds22.
7. The number of CES-D mania missing items among x0ds31-x0ds39 was computed and explored. 58.7% of participants completed the first version of this module, so they could not answer the CES-D mania questionnaire, 0.5 % of participants had between 1 and 3 items missing, 40.7% had no CES-D mania item missing.
8. Every CES-D mania item variable x0ds31-x0ds39 had its missing observations set to:
 - a) "Not in use" (-98) if the questionnaire version was the first,
 - b) "Unexpected missing" (-89) otherwise.
9. The CES-D mania score variable was created and assigned the values:
 - a) "Not in use" (-98) if the questionnaire version was the first (x0dsver=1),
 - b) "Unexpected missing" (-98) if any of the items among x0ds31-x0ds39 was "Unexpected missing",
 - c) The sum of x0ds31-x0ds39.It was saved as x0ds40.
10. The baseline dataset was saved.

4. Advices for the analysis

The CES-D score has been computed for the participants with all answers available in x0ds01-x0ds20, and similarly the CES-D mania score has been computed only for the participants with all non-missing items in x0ds31-x0ds39.

The originally proposed cutoff of the CES-D to detect depression was 16, but it was later found to be too low for the general population. A later literature review has proposed a cutoff of 20.

Additional information related to depression was measured with the instruments Major psychiatric diagnoses and Mini International Neuropsychiatric Interview (MINI), part of the self-administered questionnaire, and it can be found in the variables x0np01-x0np16 and x0mp05*.

Additional information related to mania was also measured with the instrument MINI and it can be found in the variables x0np21-x0np36.

However, these neuropsychiatric questionnaires were administered only since November 25th, 2015 and only to participants younger than 65 years old on the examination day. Furthermore, depression and mania were also reported in the neurology and other diseases modules of the interview, i.e. in the variables x0ne21*, x0ne22*, and x0ot*.

5. References

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