

**CHRIS Study**

**Neuropsychiatry  
questionnaire –  
Mini International  
Neuropsychiatry Interview**

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 neuropsychiatry questionnaire, part of the self-administered questionnaire.

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 interview occurs always after the spiralography and the blood drawing, for most as the last session, after the ECG assessment and the self-administered questionnaire (workflows B, C, E, F, H, I, L). For the remainder, the interview occurs after breakfast and just before the self-administered questionnaire (workflows A and G) or in between the blood drawing and the anthropometry (workflow D).

In order to complete the Neuropsychiatric questionnaire, participants needed to be younger than 65 years old at the examination day and agree to a specific informed consent.

The Mini International Neuropsychiatry Interview (MINI) was developed by Sheehan and colleagues and it is a questionnaire designed to assess several psychiatric conditions for the clinical and research settings, so that it would be short, inexpensive, simple and clear, highly sensitive, specific, compatible with ICD-10 diagnostic criteria, able to capture borderline situations. Both patient-rated and clinician-rated versions of the MINI were developed.

The MINI can assess up to nineteen different disorders, for CHRIS the modules on major depressive disorder and on mania were selected, in their clinician-rated versions. The module on major depressive disorder referred to either lifetime or the past two weeks, among which the lifetime version was chosen. Instead, the mania module referred both to lifetime and the past month timeframe.

The MINI Depression module consists of ten main items, which assess the occurrence of generic depression symptoms. The possible answers are always just Yes or No.

The MINI Mania module also consist of ten items, assessing the main features of a manic/hypomanic episode, with Yes/No answers.

The German and Italian translations were available for the whole MINI. The CHRIS adaptation of the MINI depression module was implemented adding some subquestions to specify the symptoms, under supervision of Prof. Dr. Marcella Rietschel, Department of Genetic Epidemiology in Psychiatry, Central Institute of Mental Health, Medical Faculty, Mannheim, Univ. of Heidelberg, and Dr. Ettore Favaretto, Psychiatrischer Dienst, hospital of Brixen.

The MINI questionnaire and its evaluation manual are available online (see References section).

## **2. History version changes**

Version 1 of this module was in use since November 25<sup>th</sup>, 2015.

The cleaning process added the variables x0np16, x0np36.

### 3. Data cleaning

1. The main CHRIS dataset was loaded.
2. All the MINI items, x0np00-x0np15c, x0np21-x0np35c, had their missing observations set to:
  - a) “Not in use” (-98) if the examination date was before November 25<sup>th</sup>, 2015,
  - b) “Missing by design” (-99) if the exact age (not the rounded one x0\_ager, but x0\_age) was at least 65.
3. The still missing observations of the informed consent variable x0np00 were set to “Unexpected missing” (-89).
4. The screening questions of the MINI depression and MINI mania modules, x0np01, x0np02, x0np21, x0np22, had their observations set to:
  - a) “Missing by design” (-99) if they were missing and the consent was denied (x0np00= “No”, “Missing by design” or “Do not know”),
  - b) “Do not know” (-88) if the option “I do not know” was chosen,
  - c) “Refuse to answer” (-87) if the option “Prefer not to answer” was chosen,
  - d) “Unexpected missing” (-89) if they were still missing.
5. The remainder items of MINI depression, x0np03, x0np04, x0np05, x0np06, x0np07, x0np08, x0np09, x0np10, x0np11, x0np14, x0np15, had their observations set to:
  - a) “Missing by design” if they were missing and neither depression screening questions was positive (x0np01 and x0np02≠ “Yes”, “Unexpected missing”),
  - b) “Unexpected missing” (-89) if still missing,
  - c) “Do not know” (-88) if the option “I do not know” was chosen,
  - d) “Refuse to answer” (-87) if the option “Prefer not to answer” was chosen.
6. For each MINI depression item with subquestions on more specific symptoms, x0np03, x0np04, x0np05, x0np07, x0np08, x0np09, the subquestions had their missing observations set to:
  - a) “Missing by design” if the main question was negative (e.g., for x0np03a, x0np03= “No”, “Missing by design”, “Refuse to answer”, “Do not know”),
  - b) “Unexpected missing” otherwise.
7. For the variable on distance of at least two months between depression episodes, x0np12, its observations were set to:
  - a) “Missing by design” (-99) if they were missing and no other depression episode lasting at least two weeks was reported (x0np11= “No”, “Missing by design”, “Do not know” or “Refuse to answer”),
  - b) “Unexpected missing” (-89) if still missing,
  - c) “Do not know” (-88) if the option “I do not know” was chosen,
  - d) “Refuse to answer” (-87) if the option “Prefer not to answer” was chosen.
8. For the variable on the number of depression episodes, x0np13, its observations were set to:
  - a) “Missing by design” (-99) if they were missing and no distinct depression episodes were reported (x0np12= “No”, “Missing by design”, “Do not know” or “Refuse to answer”),
  - b) “Unexpected missing” (-89) if still missing,
  - c) “Do not know” (-88) if the option “I do not know” was chosen,
  - d) “Refuse to answer” (-87) if the option “Prefer not to answer” was chosen.

9. For the variable on the age at onset of depression episodes, x0np14, its observations were set to:
  - a) "Unexpected missing" (-89) if they were missing,
  - b) "Do not know" (-88) if the age reported was 99.
10. The variables on the duration of the longest depression episode, x0np15-x0np15c, were first transformed into months, then summed. The missing observations were set to:
  - a) "Not in use" (-98) if the examination date was before November 25<sup>th</sup>, 2015,
  - b) "Missing by design" (-99) if the exact age (not the rounded one x0\_ager, but x0\_age) was at least 65 or if neither depression screening questions was positive (x0np01 and x0np02≠ "Yes", "Unexpected missing"),
  - c) "Unexpected missing" (-89) if the informed consent x0np00 was "Unexpected missing".
 The resulting variable was saved as x0np15. The variables x0np15b and x0np15c were dropped.
11. A new variable on the occurrence of a major depressive episode was assigned the values:
  - a) "Past" if at least five questions among x0np01-x0np09 had an affirmative answer and there was a major episode (x0np10="Yes"),
  - b) "Recurrent" if at least five questions among x0np01-x0np09 had an affirmative answer, there was a major episode, and other depression episodes lasting at least two weeks were reported (x0np10="Yes" and x0np11="Yes"),
  - c) "Not in use" (-98) if the examination date was before November 25<sup>th</sup>, 2015,
  - d) "Missing by design" (-99) if the exact age (x0\_age) was at least 65 or if the informed consent was denied (x0np00 = "No"),
  - e) "Unexpected missing" (-89) if the informed consent x0np00 was "Unexpected missing".
  - f) "No past episode" otherwise.
 It was saved as x0np16.
12. The items of MINI mania, x0np23-x0np35c, had their observations set to:
  - a) "Missing by design" if they were missing and neither mania screening questions was positive (x0np21 and x0np22≠ "Yes", "Unexpected missing"),
  - b) "Unexpected missing" (-89) if still missing,
  - c) "Do not know" (-88) if the option "I do not know" was chosen,
  - d) "Refuse to answer" (-87) if the option "Prefer not to answer" was chosen.
13. The subquestions of x0np28 on increase in activity and psychomotor agitation, x0np28a and x0np28b, had their missing observations set to:
  - a) "Missing by design" if their main question was negative (x0np28="No", "Missing by design", "Refuse to answer", "Do not know"),
  - b) "Unexpected missing" otherwise.
14. The variable on the duration of the mania episode for at least four days, x0np32, had its observations set to:
  - a) "Missing by design" if they were missing and the mania episode lasted at least a week (x0np30 = "Yes", "Do not know", "Refuse to answer"),
  - b) "Unexpected missing" (-89) if still missing,
  - c) "Do not know" (-88) if the option "I do not know" was chosen,
  - d) "Refuse to answer" (-87) if the option "Prefer not to answer" was chosen.
15. The variable on the frequency of mania episodes, x0np33, had its missing observations set to "Unexpected missing" (-89).

16. The variable on the age at onset of mania episodes, x0np34, had its observations set to:
  - a) "Unexpected missing" (-89) if they were missing,
  - b) "Do not know" (-88) if the age 99 was reported,
17. The variables on the duration of the longest mania episode, x0np35-x0np35c, were first transformed into months, then summed. The missing observations were set to:
  - a) "Not in use" (-98) if the examination date was before November 25<sup>th</sup>, 2015,
  - b) "Missing by design" (-99) if the exact age (not the rounded one x0\_ager, but x0\_age) was at least 65 or if neither mania screening questions was positive (x0np21 and x0np22≠ "Yes", "Unexpected missing"),
  - c) "Unexpected missing" (-89) if the informed consent x0np00 was "Unexpected missing".
 The resulting variable was saved as x0np35. The variables x0np35b and x0np35c were dropped.
18. A new variable on the occurrence of a manic/hypomanic episode was assigned the values:
  - a) "Manic episode" if at least four questions among x0np23-x0np29 had an affirmative answer, the first mania screening question was negative, and these symptoms caused major problems or an hospitalization (x0np21="No", sum of x0np23-x0np29 ≥ 4, x0np30="Yes" or x0np31="Yes")
  - b) "Manic episode" if at least three questions among x0np23-x0np29 had an affirmative answer, the first mania screening question was positive, and these symptoms caused major problems or an hospitalization (x0np21="Yes", sum of x0np23-x0np29 ≥ 3, x0np30="Yes" or x0np31="Yes"),
  - c) "Hypomanic episode" if at least four questions among x0np23-x0np29 had an affirmative answer, the first mania screening question was negative, and these symptoms did not cause major problems or an hospitalization but lasted at least 4 days (x0np21="No", sum of x0np23-x0np29 ≥ 4, x0np30="No", x0np31="No", x0np32="Yes"),
  - d) "Hypomanic episode" if at least three questions among x0np23-x0np29 had an affirmative answer, the first mania screening question was positive, and these symptoms did not cause major problems or an hospitalization but lasted at least 4 days (x0np21="No", sum of x0np23-x0np29 ≥ 4, x0np30="No", x0np31="No", x0np32="Yes"),
  - e) "Not in use" (-98) if the examination date was before November 25<sup>th</sup>, 2015,
  - f) "Missing by design" (-99) if the exact age (x0\_age) was at least 65 or if the informed consent was denied (x0np00 = "No"),
  - g) "Unexpected missing" (-89) if the informed consent x0np00 was "Unexpected missing".
  - h) "No past episode" otherwise.
 It was saved as x0np36.
19. The baseline dataset was saved.

#### 4. Advices for the analysis

The MINI major depression episode classification has been computed for the participants with all answers available in x0np01-x0np10, and similarly the MINI manic/hypomanic episode classification has been computed only for the participants with all non-missing items in x0np21-x0np32.

Additional information related to depression was measured with the instruments Major psychiatric diagnoses and Center for Epidemiologic Studies Depression (CES-D), part of the self-administered questionnaire, and it can be found in the variables x0mp05\* and x0ds01-x0ds22.

Additional information related to mania was also measured with the instruments CES-D and Hypomania Checklist HCL-32, and it can be found in the variables x0ds31-x0ds40, x0hc\*.

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\*.

Finally, the analyst should always take into account that the operator in charge of carrying out the interview might have influenced how the participant reported their answers. The analyst should therefore adjust for the operator variable, x0\_opintc, when possible.

## 5. References

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