CHRIS Study

Neuropsychiatry questionnaire – Hypomania Checklist HCL-32

Version 1.1

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1. Introduction

This module stores information related to hypomania, 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 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 neuropsychiatry questionnaire was printed on paper and could be filled in at the study center, or at home and then returned by mail.

The Hypomania Checklist (HCL-32) was developed by Angst and colleagues to assess hypomanic symptoms, to in turn detect earlier bipolar disorder cases. It was conceived as a self-assessment questionnaire. The instrument is aimed primarily at the identification of bipolarity in patients with unipolar depression, it asks for a diversity of symptoms (including low-threshold symptoms such as "making jokes", and "I am less shy and inhibited") and includes additional questions on their duration and consequences in their work, family, and social life.

The HCL-32 consists of 32 questions: respondents are asked to remember "a period when you were in "high" state and to indicate if specific behaviors, thoughts, or emotions were present in such a state, for example, "I need less sleep," "I am less shy or inhibited," or "I am more flirtatious and/or am sexually more active."

The validation study revealed two factors that were labeled as "active-elated hypomania" and "irritable/risk-taking hypomania", with the second one more relevant to distinguish between unipolar and bipolar disorders.

The HCL-32 was designed initially in German, and then validated in an international effort, so both the German and Italian versions were already available.

The HCL-32 questionnaire is available at CHRIS Baseline/Self-Assessment/Neuropsychiatry Questionnaire.

2. History version changes

Version 1 of this module was in use since November 25th, 2015.

The cleaning process added the variables x0hc45, x0hc46, x0hc47, x0hc48, x0hc49, x0hc50, x0hc51, x0hc52.

3. Data cleaning

1. The main CHRIS dataset was loaded.

2. All the questionnaire items, x0hc01-x0hc44, had their missing observations set to:
    a) "Not in use" (-98) if the examination date was before November 25th, 2015,
    b) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    c) "Unexpected missing" (-89) otherwise.
3. The number of missing answers was investigated. Of those returning the neuropsychiatry questionnaires, 93% had no missing item of the HCL-32 and just 1.5% had at least 15 missing items among x0hc03-x0hc36.
4. The HCL-32 R1 total score was computed as the sum of the items x0hc03-x0hc34. It was further assigned the values:
    a) "Not in use" (-98) if the examination date was before November 25th, 2015,
    b) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    c) "Unexpected missing" (-89) if any of the variables x0hc03-x0hc34 was "Unexpected missing".

    It was saved as x0hc45.

5. A hypomania status variable based on HCL-32 R1 total score was created with values:
    a) "No" if HCL-32 R1 was below 14 (x0hc45<14),
    b) "Yes" if HCL-32 R1 was at least 14 (x0hc45≥14),
    c) "Not in use" (-98) if the examination date was before November 25th, 2015,
    d) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    e) "Unexpected missing" (-89) if any of the variables x0hc03-x0hc34 was "Unexpected missing".

    It was saved as x0hc46.

6. The HCL-32 R2 total score was computed as the sum of the items x0hc03-x0hc36. It was further assigned the values:
    a) "Not in use" (-98) if the examination date was before November 25th, 2015,
    b) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    c) "Unexpected missing" (-89) if any of the variables x0hc03-x0hc36 was "Unexpected missing".

    It was saved as x0hc47.

7. A hypomania status variable based on HCL-32 R2 total score was created with values:
    a) "No" if HCL-32 R2 was below 14 (x0hc47<14),
    b) "Yes" if HCL-32 R2 was at least 14 (x0hc47≥14),
    c) "Not in use" (-98) if the examination date was before November 25th, 2015,
    d) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    e) "Unexpected missing" (-89) if any of the variables x0hc03-x0hc36 was "Unexpected missing".

It was saved as x0hc48.

8. The HCL-32 "active/elated hypomania" subscore was computed as the sum of the items x0hc04-x0hc08, x0hc12-x0hc15, x0hc17, x0hc18, x0hc21, x0hc22, x0hc24, x0hc26, x0hc30. It was further assigned the values:
    a) "Not in use" (-98) if the examination date was before November 25th, 2015,
    b) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    c) "Unexpected missing" (-89) if any of the variables x0hc04-x0hc08, x0hc12-x0hc15, x0hc17, x0hc18, x0hc21, x0hc22, x0hc24, x0hc26, x0hc30 was "Unexpected missing".

    It was saved as x0hc49.

9. An "active/elated hypomania" status variable based on the HCL-32 "active/elated hypomania" subscore was created with values:
    a) "No" if the HCL-32 "active/elated hypomania" subscore was below 12 (x0hc49<12),
    b) "Yes" if the HCL-32 "active/elated hypomania" subscore was at least 12 (x0hc49≥12),
    c) "Not in use" (-98) if the examination date was before November 25th, 2015,
    d) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    e) "Unexpected missing" (-89) if any of the variables x0hc04-x0hc08, x0hc12-x0hc15, x0hc17, x0hc18, x0hc21, x0hc22, x0hc24, x0hc26, x0hc30 was "Unexpected missing".

    It was saved as x0hc50.

10. The HCL-32 "irritable/risk-taking hypomania" subscore was computed as the sum of the items x0hc09-x0hc11, x0hc23, x0hc28, x0hc29, x0hc33, x0hc34. It was further assigned the values:
    a) "Not in use" (-98) if the examination date was before November 25th, 2015,
    b) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    c) "Unexpected missing" (-89) if any of the x0hc09-x0hc11, x0hc23, x0hc28, x0hc29, x0hc33, x0hc34 was "Unexpected missing".

    It was saved as x0hc51.

11. An "irritable/risk-taking hypomania" status variable based on the HCL-32 "irritable/risk-taking hypomania" subscore was created with values:
    a) "No" if the HCL-32 "irritable/risk-taking hypomania" subscore was below 3 (x0hc51<12),
    b) "Yes" if the HCL-32 "irritable/risk-taking hypomania" subscore was at least 3 (x0hc51≥12),
    c) "Not in use" (-98) if the examination date was before November 25th, 2015,
    d) "Missing by design" (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    e) "Unexpected missing" (-89) if any of the variables x0hc09-x0hc11, x0hc23, x0hc28, x0hc29, x0hc33, x0hc34 was "Unexpected missing".

    It was saved as x0hc52.

12. The number of days in “high” status was corrected in case not a single number was reported, as follows:
    a) If a range was reported, the median value was assigned (e.g, 3-5 was corrected into 4),
    b) If a “circa” was added after the number, that text was deleted in favor of the single number,
    c) Any float number was rounded to its nearest integer value below,
    d) If “I do not know”, “No idea”, or “Many” were reported, the answer was corrected into “Unexpected missing” (-89).
13. The baseline dataset was saved.

4. Advices for the analysis

The Hypomania Checklist-32 questionnaire does provide a total score based on the initial 32 items, and extended total score based on 34 items, as well as two subscores, elicited with factor analysis, i.e. “active-elated hypomania” and “irritable/risk-taking hypomania”.

Although the HCL-32 is a sensitive instrument for hypomanic symptoms, it does not distinguish between bipolar I and bipolar II disorders.

Additional information related to mania was measured with the instruments Mini International Neuropsychiatry Interview (MINI), Temperament Evaluation of Memphis, Pisa, Paris and San Diego (TEMPS) brief version, part of the self-administered questionnaire, and it can be found in the variables x0np*, x0bt*.

Furthermore, hypomania 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

Angst J, Adolfsson R, Benazzi F, Gamma A, Hantouche E, Meyer TD, et al. The HCL-32: towards a self-assessment tool for hypomanic symptoms in outpatients. J Affect Disord. 2005 Oct;88(2):217-33. DOI: https://doi.org/10.1016/j.jad.2005.05.011