CHRIS Study

Neuropsychiatry questionnaire – Life Orientation Test - Revised

Version 1.1

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1. Introduction

This module stores information related to optimism and pessimism, 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 Life Orientation Test- Revised (LOT-R) was developed by Scheier and colleagues to assess individual differences in generalized optimism versus pessimism. It was conceived as a self-assessment questionnaire. For a variety of psychological and medical domains, the relevance of the construct optimism has been demonstrated in numerous studies. Furthermore, various longitudinal studies found positive correlation of optimism with psychological well-being, physical health, health behaviors, positive recovery processes.

The LOT-R consists of 10 questions: respondents are asked the extent to which they agree with general sentences on their expectations and how easy it is for them to relax or get angry, on a 5-point Likert scale, ranging from "Strongly disagree" to "Strongly agree". Of those 10 questions, four are filler questions not used for the final score, and other three questions are written in a reversed order.

The LOT-R was initially designed in English, and its German and Italian translation had already been validated.

The LOT-R 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 x0lo11, x0lo11a, x0lo11b, x0lo12.

3. Data cleaning

1. The main CHRIS dataset was loaded.
2. All the questionnaire items, x0lo01-x0lo10, 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, 96% had no missing item of the LOT-R and just 0.8% had at least 5 missing items among x0lo01-x0lo10.
4. The positively formulated LOT-R items and the filler LOT-R items were assigned a score as follows:
    a) the answer “Strongly disagree” was assigned a score of 4,
    b) The answer “Disagree” was assigned a score of 3,
    c) The answer “Neutral” was assigned a score of 2,
    d) The answer “Agree” was assigned a score of 1,
    e) the answer “Strongly agree” was assigned a score of 0.
5. The negatively formulated LOT-R items, x0lo03, x0lo07, x0lo09, were assigned a score as follows:
    a) the answer “Strongly disagree” was assigned a score of 0,
    b) The answer “Disagree” was assigned a score of 1,
    c) The answer “Neutral” was assigned a score of 2,
    d) The answer “Agree” was assigned a score of 3,
    e) the answer “Strongly agree” was assigned a score of 4.

6. A LOT-R total score was created with values:
    a) the sum of the scores related to x0lo01, x0l03, x0lo04, x0lo07, x0lo09, x0lo10,
    b) “Not in use” (-98) if the examination date was before November 25th, 2015,
    c) “Missing by design” (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    d) “Unexpected missing” (-89) if any of the variables x0lo01, x0l03, x0lo04, x0lo07, x0lo09, x0lo10, was “Unexpected missing”.

    It was saved as x0lo11.

7. A LOT-R optimism score was created with values:
    a) the sum of the scores related to x0lo01, x0lo04, x0lo10,
    b) “Not in use” (-98) if the examination date was before November 25th, 2015,
    c) “Missing by design” (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    d) “Unexpected missing” (-89) if any of the variables x0lo01, x0lo04, x0lo10, was “Unexpected missing”.

    It was saved as x0lo11a.

8. A LOT-R pessimism score was created with values:
    a) the sum of the scores related to x0l03, x0lo07, x0lo09,
    b) “Not in use” (-98) if the examination date was before November 25th, 2015,
    c) “Missing by design” (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    d) “Unexpected missing” (-89) if any of the variables x0l03, x0lo07, x0lo09, was “Unexpected missing”.

    It was saved as x0lo11b.

9. An optimism categorization variable was created with values:
    a) "Low Optimism (0-13)" if LOT-R total score was between 0 and 13 (0 ≤ x0lo11≤ 13),
    b) “Moderate Optimism (14-18)” if LOT-R total score was between 14 and 18 (14 ≤ x0lo11≤ 18),
    c) “High Optimism (19-24)” if LOT-R total score was above 18 (x0lo11>18),
    d) “Not in use” (-98) if the examination date was before November 25th, 2015,
    e) “Missing by design” (-99) if the exact age (not the rounded one x0_ager, but x0_age) was at least 65,
    f) “Unexpected missing” (-89) if any of the variables x0lo01, x0l03, x0lo04, x0lo07, x0lo09, x0lo10, was “Unexpected missing”.
10. The baseline dataset was saved.

4. Advices for the analysis

The Life Orientation Test-Revised questionnaire does provide a total score based on the six relevant items, as well as an optimism subscore and a pessimism subscore, each based on three items.

Indeed, optimism and pessimism have been found as two relatively independent factors of LOT-R. The separation of optimism and pessimism implies that low optimism does not necessarily mean increased pessimism, but that the two factors can vary relatively independently of each other.

No other section of the CHRIS baseline measured optimism or pessimism, but depression, anxiety, and mania were measured with the instruments State-Trait Anxiety Inventory STAI-Y-2, Center for Epidemiologic Studies Depression (CES-D), Mini International Neuropsychiatry Interview (MINI), the Hypomania Checklist HCL-32, part of the self-administered questionnaire, and it can be found in the modules x0sa, x0ds, x0np, and 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*.

5. References

Scheier MF, Carver CS, Bridges MW. Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. J Pers Soc Psychol. 1994 Dec;67(6):1063-78. DOI: 10.1037/0022-3514.67.6.1063

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