CHRIS Study

Interview – Alcohol consumption

Version 1.1

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1. Introduction

This module stores information related to the alcohol consumption, that were collected at the interview, such as the frequency of drinking during the weekend and the week days, the quantity and type of alcoholic drinks consumed and the age at which the alcohol consumption began.

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).

The interview full text and its corresponding answer lists are available at CHRIS Baseline/Interview. This module is based on the ALKOHOLKONSUM module of the follow-up F4 questionnaire of the KORA Study (*Kooperative Gesundheitsforschung in der Region Augsburg*).

2. History version changes

Version 1 of this interview module was in use between August 24th,2011 and March 27th, 2012, whereas Version 2 had been in use between March 28th, 2012 and May 16th, 2014. Version 3 has been in use since May 19th, 2014. The third version includes less questions since alcohol intake questions have been included in the adapted GA2LEN Food Frequency Questionnaire, available since May 5th, 2014.

Between the different versions, the following changes have occurred:

Version 1 to Version 2:

variables dropped: x0al08a x0al08b x0al08c x0al08d

Version 2 to Version 3:

variables dropped: x0al03a - x0al03f, x0al04a - x0al04f, x0al05a - x0al05h, x0al06a, x0al06b, x0al07a, x0al07b

The cleaning process has added the variables x0al08, x0al09, x0al10, and x0al10a.

3. Data cleaning

1. The main CHRIS dataset was loaded.
2. The variable with comments, x0alnote, was translated and categorized when possible. The reference to non-alcoholic beer was dropped because not relevant to the topic.

3. The variable on alcohol consumption ever, x0al00, had its missing observations transformed into "Unexpected missing".
4. The variable on the average alcohol consumption frequency in the previous 12 months, x0al01, had its missing observations transformed into:
    a) "Missing by design" if alcohol consumption ever was "No";
    b) "Unexpected missing" otherwise.
5. The variables on alcohol consumption ever, x0al00, and consumption frequency in the previous 12 months, x0al01, were crosschecked and the variable on consumption ever was corrected to "Yes" if the frequency in the consumption in the previous 12 months was more than "Never".
6. The variable on heavy drinking frequency in the previous 12 months for males, x0al02a, had its missing observations transformed into:
    a) "Missing by design" if the participant is female,
    b) "Missing by design" if the alcohol consumption in the previous 12 months, x0al01, was at most once a month or "Missing by design",
    c) "Unexpected missing" otherwise.
7. The variable on heavy drinking frequency in the previous 12 months for females, x0al02b, had its missing observations transformed into:
    a) "Missing by design" if the participant is male,
    b) "Missing by design" if the alcohol consumption in the previous 12 months, x0al01, was at most once a month or "Missing by design",
    c) "Unexpected missing" otherwise.
8. Some female participants had answered to the heavy drinking question reserved to males, x0al02a, so their answers were assigned to the variable reserved for female x0al02b and x0al02a was turned into "Missing by design".
9. All the variables related to alcohol quantities on weekend and weekdays, x0al03a-x0al03f and x0al04a-x0al04f, had their missing observations transformed into:
    a) "Not in use" (-98) if the version is the third,
    b) "Missing by design" (-99) if the consumption in the previous 12 months was "Missing by design" or at most once a month,
    c) "Unexpected missing" otherwise.
10. The daily alcohol consumption was estimated, assuming for a single beer 0.2 L and 5% alcohol content, for a white wine glass 0.125 L and 11.5% alcohol content, for a red wine glass 0.125 L and 12.5% alcohol content, for a shot glass of spirits 0.02 L and 40% alcohol content, for a cocktail drink 0.3 L and 11% alcohol content. The quantities of each alcoholic drink during week and weekend were multiplied by their alcoholic amount and summed, then summed together, and divided by seven. The variable was called x0al10.
11. The derived variable on daily alcohol consumption, x0al10, was categorized into "0 g/day", "<20 g/day", "20-<40 g/day", "40-<60 g/day", "60-<80 g/day", "80g/day or more". This variable was called x0al10a.
12. The ever drinking and the various drink types consumed have been summarized in a variable called x0al09, making use of the information in x0al01, x0al03a-x0al03f, x0al04a-x0al04f, and x0alnote. This variable had its missing observations transformed into
    a) "Not in use" if the interview version, x0alver, was the third,

b) “Unexpected missing” if consumption ever, x0al00, or current consumption frequency, x0al01, were “Unexpected missing”,
c) “Unexpected missing” if all the weekdays and weekend drink type quantities, x0al03a-x0al03f, x0al04a-x0al04f, were “Unexpected missing”.
d) “Occasional drinker” if all the weekdays and weekend drink type quantities, x0al03a-x0al03f, x0al04a-x0al04f, were zero.

13. The variables on reasons for no recent alcohol consumption, x0al05a-x0al05h, had their missing observations transformed into:
    a) “Not in use” if the interview version, x0alver, was the third,
    b) “Missing by design” if recent alcohol consumption, x0la01, was “Missing by design” or more than once a month.
    c) “Unexpected missing” otherwise.
14. The variables on beginning and stop of regular alcohol consumption, x0al06a-x0al06b and x0al07a-x0al07b respectively, had their missing observations transformed into:
    a) “Not in use” if the interview version, x0alver, was the third,
    b) “Missing by design” if the participant used to be an alcoholic (x0al05f=”Yes”),
    c) “Unexpected missing” if the participant was never an alcoholic (x0al05f=”No”).
15. The alcohol addiction scale questions, x0al08a-x0al08d, had their missing observations set to:
    a) “Not in use” if the interview version was not the first,
    b) “Missing by design” if the participant never consumed
    c) “Unexpected missing”
16. The alcohol addiction scale was computed as a sum of the “Yes” to the questions x0al08a-x0al08d and saved as x0al08. The CAGE can identify alcohol problems over the lifetime. Two positive responses are considered a positive test and indicate further assessment is warranted. The total score CAGE, x0al08, was set to “Unexpected missing” if any of the single questions was “Unexpected missing”.
17. The baseline dataset was saved.

4. Advices for the analysis

The analyst should read the notes saved in the variable x0alnote, where specific alcohol consumption habits are reported.

The retrospective nature of this assessment makes the measurement of alcohol consumption habits prone to recall bias. Furthermore, social desirability bias might have pushed participants to understate their alcohol consumption, especially given the questions are asked by a study nurse.

When assessing alcohol consumption for the third version of the alcohol module, the analyst might benefit of information included in the adapted GA2LEN Food Frequency questionnaire (CHRIS Baseline/Self-Assessment/Food Frequency Questionnaire) but retain from comparing those results with those of the here presented alcohol module.

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

Ewing JA. Detecting alcoholism. The CAGE questionnaire. JAMA. 1984 Oct 12;252(14):1905-7. DOI: 10.1001/jama.1984.03350140051025

Löwel H, Döring A, Schneider A, Heier M, Thorand B, Meisinger C. The MONICA Augsburg surveys - basis for prospective cohort studies. Gesundheitswesen. 2005;67(Sonderheft 1):S13–S18. DOI: 10.1055/s-2005-858234

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