

CHRIS Study

Touchscreen – State-Trait Anxiety Inventory

Version 1.1
24th April 2024

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1. Introduction

This module stores information related to the habitual anxiety condition 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 State-Trait Anxiety Inventory (STAI) was developed by Spielberger and colleagues and it is a questionnaire procedure designed to assess current and habitual anxiety. State and trait can be recorded independently of each other. The German version dates back to 1981, and it is based on the American version.

The instrument consists of two separate questionnaires, each with 20 items on a 4-point response scale. The items consist of short, concise self-statements (example: "I feel good"; "Unimportant thoughts run through my mind and weigh me down"). The State Questionnaire contains questions that describe current state. By changing the instruction accordingly, a situation other than the current one can be asked. It has 10 positively and 10 negatively worded items. The Trait Questionnaire contains questions describing general well-being independent of the situation. It has 13 positively and 7 negatively worded items. The values of the scales are added up, resulting in two total scores in the range between 20 and 80. In the CHRIS study only the Trait Questionnaire, STAI Y-2, was used.

The questionnaire core items were chosen based on theoretical considerations, these were then extended by findings from cognitive anxiety research, for example on anxiety processing, cause attribution or attentional changes. What is not reflected in the formulations are for example the attribution-theoretical bases. Attributions are not to be found in the items.

The German version was already validated and available, whereas the Italian version was translated by IfB researchers.

The STAI-Y-2 questionnaire cannot be shared due to copyright issues, but its evaluation manual is available online (see References section).

2. History version changes

Version 1 of this module was in use since August 24th, 2011 and it has never been changed.

The cleaning process added the variables x0sa42 and x0sa42a.

3. Data cleaning

1. The main CHRIS dataset was loaded.
2. The STAI Y-2 items that were positively formulated, x0sa21, x0sa23, x0sa26, x0sa27, x0sa30, x0sa33, x0sa34, x0sa36, and x0sa39, had their answer values reversed to match the remainder STAI Y-2 items that were negatively formulated.
3. The number of missing items among x0sa21-x0sa40 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 STAI Y-2 item missing.
4. Every item variable x0sa21-x0sa40 had its missing observations set to “Unexpected missing” (-89).
5. The STAI Y-2 score variable was created and assigned the values:
 - a) “Unexpected missing” if any of the items among x0sa21-x0sa40 was “Unexpected missing”,
 - b) The sum of x0sa21 to x0sa40.It was saved as x0sa42.
6. The STAI Y-2 pro-rata score variable was created and assigned the values:
 - a) “Unexpected missing” if more than 10 items among x0sa21-x0sa40 were “Unexpected missing”,
 - b) The sum of x0sa21 to x0sa40, with the missing observations substituted for each participant with the median answer score of the non-missing items.

It was saved as x0sa42a.

7. The baseline dataset was saved.

4. Advices for the analysis

The STAI Y-2 score has been computed for the participants with all answers available in x0sa21-x0sa40.

There is no official cutoff of the instrument to detect trait anxiety, but various validation studies have proposed their own.

Additional information related to anxiety was measured with the instrument Major psychiatric diagnoses x0mp*, part of the self-administered questionnaire and it can be found in the variables x0mp13*, on generalized anxiety disorder. However, these neuropsychiatric questionnaires were administered only since November 25th, 2015. Furthermore, anxiety was also reported in the other diseases module of the interview x0ot*.

5. References

Spielberger, C. D. (1972). Anxiety: Current trends in theory and research: I. New York, N.Y.: Academic Press.

Laux L, Glanzmann P, Schaffner P, Spielberger CD. (1981) Das State-Trait-Angstinventar (Testmappe mit Handanweisung, Fragebogen STAI-G Form X 1 und Fragebogen STAI-G Form X 2); Weinheim: Beltz.

Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). Manual for the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press.

STAI manual (in German): <https://docplayer.org/29966565-Das-deutschsprachige-state-trait-angst-inventar.html>