MIDUS Refresher 2 Cognitive Project

Read Me First
General Introduction to the Cognitive Test Battery

Brief Test of Adult Cognition by Telephone (BTACT)
Montreal Cognitive Assessment (MoCA-BLIND)

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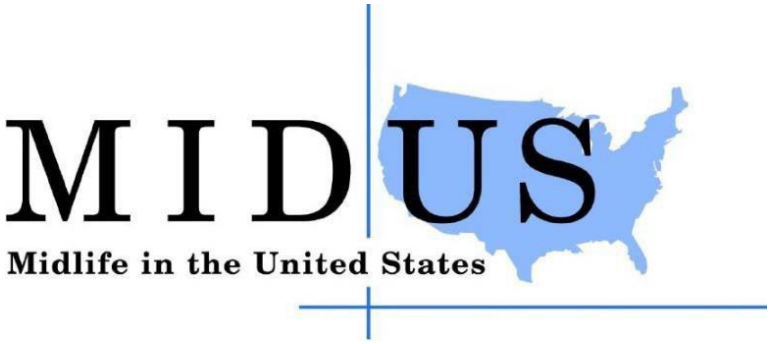

This document serves as a general introduction for the reader to the cognitive test data in MIDUS Refresher 2. Cognitive testing was carried out using the Brief Test of Adult Cognition by Telephone (BTACT) and the Montreal Cognitive Assessment (MoCA – Blind).

For more information about the BTACT instrument, see:

- Lifespan Lab Website*:*
http://www.brandeis.edu/departments/psych/lachman/instruments/index.html
- Monitoring cognitive functioning: Psychometric properties of the Brief Test of Adult Cognition by Telephone (published article; doi: 10.1177/1073191113508807)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4050038/

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Notes:

1. In MIDUS 2, factor analysis revealed two cognitive factors: Episodic Memory and Executive Functioning (see Lachman, Agrigoroaei, Tun, & Weaver, 2014). We have not yet carried out the factor analysis in MIDUS Refresher 2.
2. The SGST latency values vary as a function of phone type (see variable RB3PHONTYPE = landline (1) vs. cell phone (2)). In order to adjust for cell phone delays, we administered a metronome task at the beginning of the SGST. A metronome was set at 1 second intervals and the participants were instructed to listen, to get the beat, and then to count out loud from one to ten at the exact time as the metronome clicks sounded.

These are the instructions used at the beginning of the SGST:
Next you will be listening to a series of evenly spaced clicks and counting along with the click. Try to say the number exactly when the click sounds. First, I'll demonstrate, please listen (metronome clicks start, one beat per second and the experimenter counts on the beat from one to ten). Note that I said the numbers as the click was sounding. Now I will play the clicks again, please listen to two or three clicks to get the timing, then begin counting from one to ten. Say the numbers right when the clicks sound, not before or after the click, but at the same time the click is sounding. Do you have any questions? (The experimenter waits for participant to respond). Let's begin. (Start metronome)
(After the participant counts to ten): Good, now let's do something different.

This task generated 10 time lags between metronome clicks and the numbers. All available lags were used to compute a score for each participant that measures the phone delays at the beginning of the SGST. That is, if the participant had all 10 lags, we took the median of those 10 values, whereas if the participant only had 5 lags (e.g., due to audio issues), we took the median of the 5 available values. In order to adjust for the phone delays, we recommend subtracting this median (RB3TSMMM) from the SGST latency composite scores (see file R2_P3_BTACT_Variable-Naming). These adjustment scores (RB3TSMMM) are only provided for the phones in which there was a lag between the counting and the metronome clicks[1]. A score of 0 indicates the absence of a lag between the counting and the metronome clicks.

[1] For 72 cases the phone adjustments were not performed because of missing metronome data.

A. FILES ASSOCIATED WITH REFRESHER 2 COGNITIVE PROJECT

DOCUMENT	FILE
1. Data File Notes: gives an overview of the BTACT	***MR2_P3_BTACT+MOCA _DatafileNotes_20260224***
2. Variable Naming Document: lists for each measure the specific variable name, ranges, and computational formula, if applicable	***MR2_P3_BTACT+MOCA_VariableNaming_20251215***
3. Codebook	***MR2_P3_BTACT+MOCA_CODEBOOK_20260304***
4. Data file (SPSS format)	***MR2_P3_BTACT+MOCA_N1934_20260224***

B. DATASET: Notes about the sample

1. Note that the data file contains the ID numbers for all participants who completed any of the cognitive subtests, even if they did not have complete data for all subtests. Thus, the total N may vary slightly from subtest to subtest.

2. Data from Milwaukee Refresher 2 respondents (who completed a separate CAPI fielding effort prior to participating in the BTACT assessment) have been integrated into this dataset. These cases can be identified by using the SAMPLMAJ variable. More details about the Milwaukee Refresher 2 sample, including a field report, can be found at MIDUS Portal (https://midus.colectica.org/) and ICPSR (https://www.icpsr.umich.edu/).

Notes:

1. In cases where participants did not complete every individual MoCA Subtest, we did not compute a final MoCA Score (RB3MOCATOT, RB3MOCATOTADJ). Instead, participants who have at least one MoCA subtest missing received a partial total score (RB3MOCAPARTIAL). This is the sum score of all available tests. No education adjustment was provided for the partial MoCA Score recipients.

2. The MoCA Vigilance task has the most missing cases. This test relies on audio for both the participant and the interviewer. In some cases, participants may have performed the test however it was unheard by the interviewer, resulting in missing data. These cases are denoted by a 97 (PROBLEM HEARING/UNDERSTANDING/RECORDING WORD).

3. The MoCA Blind is an adapted version of the MoCA for administration by voice only. It is ideal for subjects with visual impairment and for remote assessment by telephone. The items requiring visual abilities are not included. The MoCA Blind is scored out of 22 but is converted back to 30. Example: 19/22 converts back to 30 by performing the following equation: (19x30) ÷ 22. The total converted score is 25.9 or 26/30 which is considered in the normal range. Note that this conversion has not been validated. We provide the score out of 22. https://mocacognition.com/faq/

For more information on the MoCA-Blind, please refer to the following article.

Wittich, W., Phillips, N., Nasreddine, Z. S., & Chertkow, H. (2019). Sensitivity and Specificity of the Montreal Cognitive Assessment Modified for Individuals who are Visually Impaired. *Journal of Visual Impairment & Blindness*, *104(6),* 360-368. https://doi.org/10.1177/0145482X1010400606 (Original work published 2010)