Canadian Longitudinal Study on Aging
Étude longitudinale canadienne sur le vieillissement

Derived Variables– Posttraumatic Stress Disorder (PSD)

(Tracking and Comprehensive Assessments)

To measure Posttraumatic Stress Disorder (PTSD), the CLSA uses the four-item Primary Care Posttraumatic Stress Disorder (PC-PTSD) screening instrument (1), which asks participants about their experiences in the last month.

There are two variables derived (DVs) from the PSD module: the PC-PTSD score and the indicator for a positive result to the screening. Furthermore, there is also a variable indicating the number of missing items on the PC-PTSD.

For the purposes of the CLSA, when there are missing items, the available partial information is used to determine a positive or negative screen result, if it is feasible to do so. After considering the number of missing items, a determination is made if the current classification could be altered if those missing values were known. If it could not, then the classification of a positive or negative screen for PTSD is made. If it could be altered, the indicator for a positive screen is assigned a missing value.

These DVs, and the count of missing items, are created for participants in both the Tracking and Comprehensive assessments. For simplicity, we describe them here for the Tracking assessment, however, the process of creating the DVs for the Comprehensive assessment is identical. Distinguishing the two are the variable name endings; all variable names in the Tracking assessment end in 'TRM' and in the Comprehensive assessment in 'COM'. For example, the DV named PSD_DSCR_**TRM** in the Tracking assessment is named PSD_DSCR_**COM** in the Comprehensive assessment.

(1) Prins, A., Ouimette, P., Kimerling, R., Cameron, R. P., Hugelshofer, D. S., Shaw-Hegwer, J., Thrailkill, A., Gusman, F.D., Sheikh, J. I. (2003). The Primary Care PTSD screen (PC-PTSD): Development and operating characteristics. Primary Care Psychiatry, 9, 9-14.

1) Number of Missing Items on the PC-PTSD

Variable Name: PSD_NBRMIS_TRM

Description: This variable counts the total number of items that do not have a "Yes" or "No" response on the PC-PTSD.

Based on: PSD_NGHTM_TRM, PSD_AVOID_TRM, PSD_GUARD_TRM, PSD_DETACH_TRM

Temporary Indicator Variables: In order to count the number of missing items on the PC-PTSD, we first create four temporary indicator variables, PSD_IMNGHTM_TRM, PSD_IMAVOID_TRM,

PSD_IMGUARD_TRM, and PSD_IMDETACH_TRM, which indicate if a response is missing for each of the four items, PSD_NGHTM_TRM, PSD_AVOID_TRM, PSD_GUARD_TRM, and PSD_DETACH_TRM, respectively. These indicator variables are not included in the CLSA dataset.

Value	Condition(s)	Description
PSD_IMNGHTM_TRM= 1	PSD_NGHTM_TRM ≠ (1,2)	Missing value
PSD_IMNGHTM_TRM= 0	PSD_NGHTM_TRM = (1,2)	Not missing value
PSD_IMAVOID_TRM = 1	PSD_AVOID_TRM ≠ (1,2)	Missing value
PSD_IMAVOID_TRM = 0	PSD_AVOID_TRM = (1,2)	Not missing value
PSD_IMGUARD_TRM = 1	PSD_GUARD_TRM ≠ (1,2)	Missing value
PSD_IMGUARD_TRM = 0	PSD_GUARD_TRM = (1,2)	Not missing value
PSD_IMDETACH_TRM = 1	PSD_DETACH_TRM ≠ (1,2)	Missing value
PSD_IMDETACH_TRM = 0	PSD_DETACH_TRM = (1,2)	Not missing value

Variable Specifications:

Value	Description	Notes
PSD_IMNGHTM_TRM + PSD_IMAVOID_TRM + PSD_IMGUARD_TRM + PSD_IMDETACH_TRM	Number of missing items on PC-PTSD	(min: 0; max: 4)

2) Primary Care Posttraumatic Stress Disorder (PC-PTSD) score– Temporary Variable

Derived Variable Name: PSD_TDSCR_TRM

Description: This variable indicates the total number of instances where the participant responded positively to having manifestations of posttraumatic stress disorder. It ignores missing values and cannot be interpreted without considering the number of missing items, PSD_NBRMIS_TRM. This variable in not included in the CLSA dataset.

Based on: PSD_NGHTM_TRM, PSD_AVOID_TRM, PSD_GUARD_TRM, PSD_DETACH_TRM

Temporary Indicator Variables: In order to easily sum the number of positive responses to the questions on the PC-PTSD, we create four temporary indicator variables, PSD_TNGHTM_TRM, PSD_TAVOID_TRM, PSD_TGUARD_TRM, and PSD_TDETACH_TRM, to indicate a positive response to items PSD_NGHTM_TRM, PSD_AVOID_TRM, PSD_GUARD_TRM, and PSD_DETACH_TRM, respectively. These indicator variables are not included in the CLSA dataset.

Value	Condition(s)	Description
PSD_TNGHTM_TRM = 1	PSD_NGHTM_TRM = 1	Positive response
PSD_TNGHTM_TRM = 0	PSD_NGHTM_TRM ≠1	Negative or no response
PSD_TAVOID_TRM = 1	PSD_AVOID_TRM = 1	Positive response
PSD_TAVOID_TRM = 0	PSD_AVOID_TRM ≠1	Negative or no response
PSD_TGUARD_TRM = 1	PSD_GUARD_TRM = 1	Positive response
PSD_TGUARD_TRM = 0	PSD_GUARD_TRM ≠1	Negative or no response
PSD_TDETACH_TRM = 1	PSD_DETACH_TRM = 1	Positive response
PSD_TDETACH_TRM = 0	PSD_DETACH_TRM ≠1	Negative or no response

Derived Variable Specifications:

Value	Description	Notes
PSD_TNGHTM_TRM + PSD_TAVOID_TRM + PSD_TGUARD_TRM + PSD_TDETACH_TRM	PC-PTSD score ignoring missing values	(min: 0; max: 4)

3) Positive screen for PTSD

Derived Variable Name: PSD_DCTOFF_TRM

Description: This variable is an indicator of a positive result to the screening for PTSD. A positive screening result requires that at least 3 items of the PC-PTSD were answered positively (1).The number of missing items is also considered when making this classification.

Based on: PSD_TDSCR_TRM, PSD_NBRMIS_TRM

Derived Variable Specifications:

Value	Condition(s)		Description
0	(PSD_TDSCR_TRM = (0, 1, 2)and PSD_NBRMIS_TRM = 0) or (PSD_TDSCR_TRM = (0, 1) and PSD_NBRMIS_TRM = 1) or (PSD_TDSCR_TRM = 0 and PSD_NBRMIS_TRM = 2)		Negative result of PTSD screening
1	PSD_TDSCR_TRM = (3,4)		Positive result of PTSD screening
9	All other possible combinations of PSD_TDSCR_TRM and PSD_NBRMIS_TRM		Inconclusive resultof PTSD screening due to missing values

4) Primary Care Posttraumatic Stress Disorder (PC-PTSD) score

Derived Variable Name: PSD_DSCR_TRM

Description: This variable indicates the total number of instances where the participant responded positively to having manifestations of posttraumatic stress disorder. If there are any missing items, it is set to missing. However, we distinguish between participants with missing items who have provided sufficient information to obtain a conclusive result from the PTSD screening, and those who have not.

Based on: PSD_TDSCR_TRM, PSD_NBRMIS_TRM, PSD_DCTOFF_TRM

Derived Variable Specifications:

Value	Condition(s)	Description	Notes
PSD_TDSCR_TRM	PSD_NBRMIS_TRM =0	PC-PTSD score	(min: 0; max: 4)
99	PSD_NBRMIS_TRM> 0 and PSD_DCTOFF_TRM =9	At least one missing item and inconclusive result of PTSD screening.	
-88	PSD_NBRMIS_TRM> 0 and PSD_DCTOFF_TRM≠9	At least one missing item but conclusive result of PTSD screening is available.	