

ALCOHOL USE - NEGATIVE CONSEQUENCES MEASURE DIFFERENCES

A brief guide to differences between the PROMIS[®] Alcohol Use - Negative Consequences instruments:

ADULT
PROMIS Item Bank v1.0 – Alcohol Use - Negative Consequences
PROMIS Short Form v1.0 – Alcohol Use - Negative Consequences 7a

ABOUT ALCOHOL USE - NEGATIVE CONSEQUENCES

The PROMIS adult Alcohol Use - Negative Consequences item bank assesses negative personal outcomes of alcohol use over the past 30 days. These items cover physical (e.g., hangover, headache, dizziness), mental (e.g., sadness, guilt, confusion), and social (e.g., said or did embarrassing things, others complained about my drinking) consequences of drinking.

Alcohol Use - Negative Consequences instruments are available for adults (ages 18+).

INTRODUCTION TO ASSESSMENT OPTIONS

There are two administration options for assessing Alcohol Use – Negative Consequences: short form and a computer adaptive test (CAT). When administering a short form, instruct participants to answer all of the items (i.e., questions or statements) presented. With a CAT, participant responses guide the system's choice of subsequent items from the full item bank (31 items in total). For both short form and a CAT, participants are first asked to answer a screener question which inquires whether they have consumed any type of alcoholic beverage in the past 30 days. If a participant responds in the affirmative the remainder of the instrument is administered. If the participant responds in the negative the system bypasses the remainder of the short form or CAT and moves on to the next instrument in the assessment. Although items differ across respondents taking a CAT, scores are comparable across participants.

Some administrators may prefer to ask the same question of all respondents or of the same respondent over time, to enable a more direct comparability across people or time. In these cases, or when paper administration is preferred, a short form would be more desirable than a CAT. This guide provides information on the Alcohol Use – Negative Consequences short form and CAT instruments.

CAT: A minimum number of items (4 for adult) must be answered in order to receive a score for the Alcohol Use - Negative Consequences CAT. The response to the first item will guide the system's choice of the next item for the participant. The participant's response to the second item will dictate the selection of the following question, and so on. As additional items are administered, the potential for error is reduced and confidence in the respondent's score increases. CAT will continue until either the standard error drops below a specified level (on the T-score metric 3.0 for adult CATs), or the participant has answered the maximum number of questions (12), whichever occurs first.

CAT versus Short Form: Whether one uses a short form or CAT, the score metric is Item Response Theory (IRT), a family of statistical models that link individual questions to a presumed underlying trait or concept of Alcohol Use – Negative Consequences represented by all items in the item bank. When choosing between a CAT and a short form, it is useful to consider the demands of computer-based assessment, and the psychological, physical, and cognitive burden placed on respondents as a result of the number of questions asked.

Figure 1 illustrates the correlations (strength of relationship) of the full bank with a CAT and with short forms of varying length. The correlation of CAT scores with the full bank score is greater than a short form of any length. A longer CAT or longer short form offers greater correlation, as well as greater precision. When evaluating precision, not all questions are equally informative. The flexibility of a CAT to choose more informative questions offers more precision.

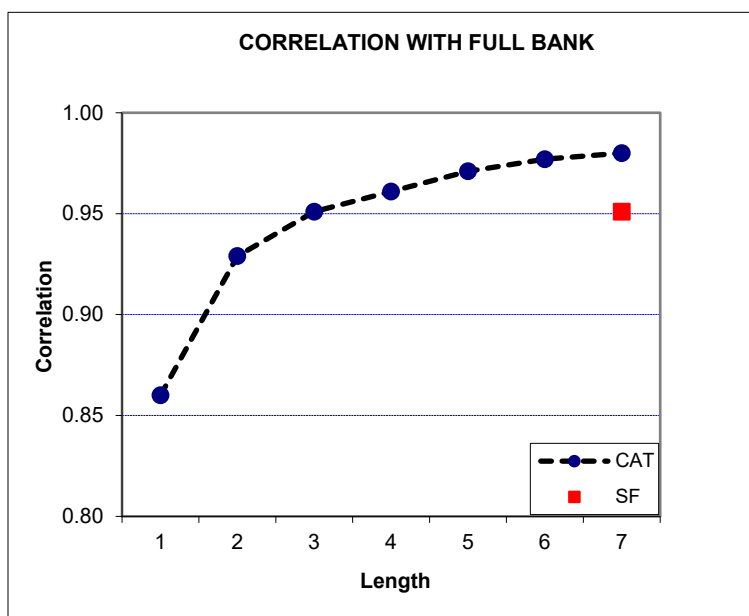


Figure 1

SCORES

For most PROMIS instruments, a score of 50 is the average for the United States general population with a standard deviation of 10 because calibration testing was performed on a large sample of the general population. You can read more about the calibration and centering samples on HealthMeasures.net (<http://www.healthmeasures.net/score-and-interpret/interpret-scores/promis>). The T-score is provided with an error term (Standard Error or SE). The Standard Error is a statistical measure of variance and represents the “margin of error” for the T-score.

Important: A higher PROMIS T-score represents more of the concept being measured. For negatively-worded concepts like Alcohol Use-Negative Consequences, a T-score of 60 is one SD worse than average. By comparison, an Alcohol Use-Negative Consequences T-score of 40 is one SD better than average.

STATISTICAL CHARACTERISTICS

There are four key features of the score for Alcohol Use- Negative Consequences:

- **Reliability:** The degree to which a measure is free of error. It can be estimated by the internal consistency of the responses to the measure, or by correlating total scores on the measure from two time points when there has been no true change in what is being measured (for z-scores, reliability = $1 - SE^2$).
- **Precision:** The consistency of the estimated score (reciprocal of error variance).
- **Information:** The precision of an item or multiple items at different levels of the underlying continuum (for z-scores, information = $1/SE^2$).
- **Standard Error (SE):** The possible range of the actual final score based upon the scaled T-score. For example, with a T-score of 52 and a SE of 2, the 95% confidence interval around the actual final score ranges from 48.1 to 55.9 ($T\text{-score} \pm (1.96*SE) = 52 \pm 3.9 = 48.1 \text{ to } 55.9$).

The final score is represented by the T-score, a standardized score with a mean of 50 and a standard deviation (SD) of 10.

In Figure 2 (Adult 7a short form), the two dotted horizontal lines each represent a degree of internal consistency reliability (i.e., .90 or .95) typically regarded as sufficient for an accurate individual score. The shaded blue region marks the range of the scale where measurement precision is comparable to the reliability of .90 for the seven-item form. Figure 2 also tells us where on the scale the form is most informative based upon the T-score.

More information is available at HealthMeasures.net.

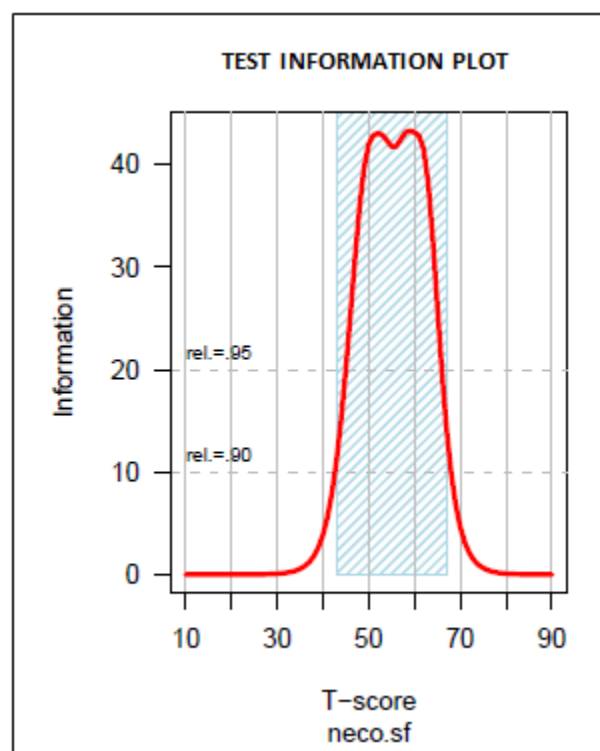


Figure 2

PREVIEW OF SAMPLE ITEM

Figure 3 is an excerpt from the paper version of the adult seven-item short form. This is the paper version format used for all Alcohol Use – Negative Consequences instruments. It is important to note, CAT is not available for paper administration.

	In the past 30 days...	Never	Rarely	Sometimes	Often	Almost always
NECO14	I was unreliable after I drank.....	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
NECO15	Others complained about my drinking	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Figure 3

FREQUENTLY ASKED QUESTIONS (FAQs)

Q: I am interested in learning more. Where can I do that?

Review the HealthMeasures website at www.healthmeasures.net.

Q: Are these instruments available in other languages?

Yes! Look at the HealthMeasures website (<http://www.healthmeasures.net/explore-measurement-systems/promis/intro-to-promis/available-translations>) for current information on PROMIS translations.



Q: Can I make my own short form?

Yes, custom short forms can be made by selecting any items from an item bank. This can be scored using the Scoring Service (https://www.assessmentcenter.net/ac_scoring-service).