MEDICATION ADHERENCE MEASURE DIFFERENCES

A brief guide to differences between the PROMIS® and Neuro-QoL™ Medication Adherence instruments:

ADULT
PROMIS Scale v1.0 - Medication Adherence
Neuro-QoL Bank v1.0 - Medication Adherence
Neuro-QoL Short Form v1.0 - Medication Adherence 6a

ABOUT MEDICATION ADHERENCE

PROMIS: The PROMIS Medication Adherence Scale item bank assesses behaviors related to taking oral medication as prescribed by a doctor. It includes information about the medication (what it is and how often it is meant to be taken), overarching beliefs about the medication (4 items), and behaviors related to medication adherence in the past 7 days (5 items). The full version includes 2 items from other scales. It is generic rather than disease-specific.

Neuro-QoL: Neuro-QoL Medication Adherence instruments assess the knowledge and ability of participants to take medications as prescribed, including getting prescriptions filled on time and taking medications at the correct time. The Neuro-QoL Medication Adherence item bank was developed in individuals with type 2 diabetes mellitus, but it is appropriate for persons who have a health condition or conditions for which they have sought or thought about seeking treatment. The Medication Adherence instruments assess current level of adherence (rather than function over a specified time period).

Medication Adherence instruments are available for adults (ages 18+).

INTRODUCTION TO ASSESSMENT OPTIONS

The **PROMIS Medication Adherence Scale** is administered in its entirety (10 items). It produces a Medication Beliefs and Knowledge subscale score, a Medication Taking Behaviors subscale score, and a total PROMIS Medication Adherence Scale score.

The **Neuro-QoL Medication Adherence** measures include a computer adaptive test and 6-item short form. For the CAT, participant responses guide the system's choice of subsequent items from the full item bank (27 items in total in bank). Although items differ across respondents taking CAT, scores are comparable across participants.

A minimum number of items (i.e., 4) must be answered in order to receive a score for the Neuro-QoL Medication Adherence 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. The CAT will continue until either the standard error drops below a specified level (on the T-score metric 3.0), or the participant has answered the maximum number of questions (8), whichever occurs first.

Standard Stopping Rules: The Neuro-QoL Bank v1.0 – Medication Adherence measure is administered by default as a computer adaptive test using the following standard stopping rules:

- Minimum number of items administered = 4
- Stop when one of these occurs:
    - 8 items are administered OR
    - Standard error is below 0.3 on the theta metric (3.0 on the T-score metric)
    - The standard error changes by less than 0.01 on the theta metric (0.1 on the T-score metric)

DIFFERENCES BETWEEN PROMIS AND NEURO-QOL MEDICATION ADHERENCE MEASURES

There are some Neuro-QoL and PROMIS Instruments that have overlapping concepts. The Neuro-QoL Bank v1.0 - Medication Adherence and PROMIS Scale v1.0 – Medication Adherence is one example of this. Below, we provide an explanation of the differences between these two measures.

	PROMIS Medication Adherence	**Neuro-QoL Medication Adherence**
Available measures	•Scale (10 items) •Can also administer single item	• CAT • 6-item short form
Scores	•Medication Beliefs & Knowledge score (range 4-20) •Medication Taking Behaviors score (range 5-25) •Total PROMIS Medication Adherence score (range 9-45	Neuro-QoL T-score
Population in measure development	Clinical sample	Type 2 diabetes mellitus
Reference population	n/a	People with type 2 diabetes mellitus
Measure content	Understanding of a medication (what it is and how often it is meant to be taken), overarching beliefs about the medication, and behaviors related to taking medications	Knowledge and ability of to take medications as prescribed, including getting prescriptions filled on time and taking medications as prescribed
Recall period	Past 7 days	Not specified (e.g., I take my current medication as prescribed. Never to always)
Direction of scores	Higher = greater medication adherence	Higher = greater medication adherence

COMPARING SCORES

- Scores from the Neuro-QoL 6-item short form can be compared to the Neuro-QoL CAT.
- Scores from a Neuro-QoL Medication Adherence measure cannot be compared to a PROMIS Medication Adherence measure score.

SHORT FORM ITEM SELECTION

There is one Neuro-QoL 6-item Medication Adherence short form. The short form items were selected using item performance statistics in combination with clinical relevance/importance. Three primary criteria were used in the selection of items: 1) Psychometrics – selected items should have excellent, or high discrimination, IRT parameters. This includes steep slope and high average item information; 2) Content – selected items should have adequate content coverage, and items should be clinically meaningful and representative of the construct being measured; and 3) Item Difficulty – selected items should represent different levels of difficulty, ranging from easy to endorse to difficult to endorse.

FREQUENTLY ASKED QUESTIONS (FAQ)

Q: I am interested in learning more. Where can I do that?
Review the HealthMeasures website at www.healthmeasures.net.

Q: Are PROMIS instruments available in other languages?
Yes! Look at the HealthMeasures website (https://www.healthmeasures.net/explore-measurement-systems/promis/intro-to-promis/available-translations) for current information on Neuro-QoL translations.