

Title: Interpretation of PROMIS Fatigue CAT scores in Solid Organ Transplant Recipients

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Objective:

Relating PROMIS T-scores to functional impacts can help clinicians and patients to meaningfully interpret T-scores. Here we assess the relationship between T-scores vs the last items and responses in solid organ transplant recipients (kidney (KTRs), kidney-pancreas (KPRs) and liver (LTRs)) using the PROMIS Fatigue Computer Adaptive Test (CAT).

Methods:

A cross-sectional, convenience sample of adult KTRs, KPR, and LTRs completed the PROMIS Fatigue CAT on an electronic data capture system (DADOS, TECHNA Institute, UHN). The number of items answered, and the unique last items administered from the PROMIS Fatigue item bank were tabulated. Final T-scores were ordered from low to high, and last questions and responses at different T-scores are reported.

Results:

Of the 373 participants, the mean(SD) age was 53(14), 235 (63%) were male, 199 (53%) were KTRs, 46 (12%) were KPRs and 128 (34%) were LTRs. T-scores were <50 (46%), 50-60 (35%), >60 (19%).

A total of 18 unique last questions were completed in this study sample. Patients with T-scores ranging from 24-40 had last questions and responses that reflected no to very little fatigue. Unique last questions to this T-score range included questions about strenuous exercise and feeling "sluggish". Responses to these questions suggested that patients were able to perform strenuous exercises and did not feel tired. Patients with T-scores ≥ 60 had last questions and responses reflecting moderate to severe fatigue. Unique last questions administered to patients with T-scores ≥ 60 included questions about fatigue interfering with physical functioning, and for patients with T-scores >70, the ability to eat and carry a conversation. Responses to questions in this T-score range suggested that fatigue limited the ability to perform even basic daily activities of living.

Conclusion:

We reported a relationship between PROMIS Fatigue CAT T-scores, and the last question and response administered. This relationship can help improve the interpretation of PROMIS Fatigue T-scores and help clinicians and patients understand how PROMIS Fatigue T-scores relate to limitations in daily life.

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