

Additional File 1: Table S1 Comparison of Relative Validity (RV) of QDIS (7-item Static and 6-item CAT) and Generic Measures in Discriminating Across Severity Levels, Five Disease Groups

Disease/ Measure	Mean (SD) by Self-Evaluated Severity ^a			F-ratio	RV ^b	95% CI ^c
	Mild	Moderate	Severe			
Arthritis	(N=499)	(N=406)	(N=158)			
QDIS-7 ^d	48.8 (7.04)	57.0 (5.99)	65.1 (5.85)	434.04	1.00	
CAT-6 ^d	49.4 (7.17)	57.1 (5.64)	64.4 (5.70)	379.44	0.87	(.83, .93)
SF-8 PCS ^e	47.9 (7.73)	41.2 (8.59)	31.3 (8.39)	262.63	0.61	(.50, .72)
SF-8 MCS ^e	51.3 (8.58)	48.6 (10.02)	43.7 (11.47)	38.50	0.09	(.05, .14)
CKD	(N=173)	(N=46)	(N=30)			
QDIS-7	44.3 (6.91)	52.0 (7.26)	61.2 (8.72)	79.21	1.00	
CAT-6	44.8 (7.02)	52.0 (7.07)	61.0 (7.91)	74.39	0.94	(.84, 1.07)
SF-8 PCS	42.3 (11.17)	37.1 (10.66)	32.9 (7.18)	12.20	0.15	(.07, .31)
SF-8 MCS	50.3 (9.19)	46.3 (11.29)	44.3 (11.80)	6.71	0.08	(.02, .19)
Cardiovascular	(n = 431)	(n = 97)	(n = 32)			
QDIS-7	48.4 (8.79)	58.9 (6.63)	65.3 (5.40)	113.33	1.00	
CAT-6	48.8 (9.03)	58.8 (6.72)	65.3 (5.20)	100.47	0.89	(.82, .94)
SF-8 PCS	41.8 (10.25)	34.1 (8.57)	30.0 (7.34)	40.59	0.36	(.23, .52)
SF-8 MCS	49.9 (9.55)	46.5 (10.41)	39.7 (11.51)	18.83	0.17	(.07, .30)
Diabetes	(N=569)	(N=212)	(N=45)			
QDIS-7	44.4 (6.42)	51.2 (7.63)	58.9 (5.95)	152.73	1.00	
CAT-6	44.5 (6.23)	51.0 (7.52)	58.0 (6.43)	142.47	0.93	(.86, 1.01)
SF-8 PCS	48.3 (8.91)	44.1 (9.97)	40.9 (11.41)	25.25	0.17	(.08, .27)
SF-8 MCS	51.5 (8.32)	47.7 (10.18)	42.3 (12.00)	31.08	0.20	(.11, .33)
Respiratory	(N=809)	(N=230)	(N=83)			
QDIS-7	44.1 (7.07)	56.2 (6.67)	64.9 (7.26)	524.31	1.00	
CAT-6	44.5 (7.08)	56.4 (6.60)	64.1 (6.86)	488.29	0.93	(.89, .98)
SF-8 PCS	47.9 (9.57)	41.3 (10.34)	32.8 (10.29)	114.33	0.22	(.16, .28)
SF-8 MCS	49.2 (9.56)	46.2 (11.76)	40.8 (11.80)	29.14	0.06	(.03, .09)

Abbreviations: CKD chronic kidney disease

^a Severity defined as Mild (None, Mild), Moderate, or Severe (Severe, Very Severe) in response to item *How would you rate the severity of your <condition> in the past 4 weeks?*

^b Relative validity (RV) is computed as the ratio of the comparator F-statistic over the QDIS-7 F-statistic.

^c Comparator confidence intervals (CI) estimated using bootstrap.

^d QDIS-7 and CAT-6 scored so a higher score equals worse health.

^e Norm-based scoring of SF-8 Health Survey summary measures based on a representative probability sample of the US general household population surveyed in 2011, scored so a higher score equals better health.

Source: Ware JE, Gandek B, Guyer R, Deng N. Standardizing Disease-specific Quality of Life Measures Across Multiple Chronic Conditions: Development and Initial Evaluation of the QOL Disease Impact Scale (QDIS®). *Health and Quality of Life Outcomes*, 2016.