

Appendix

TABLE E-1 PROMIS in Orthopaedic Populations*

Study	Patient Population	PROMIS Measure (CAT)	Traditional Measure	Question Burden	Results
Anthony et al. ⁴⁵ (2017)	Shoulder instability (n = 70)	Physical function	ASES, WOSI, SF-36 PF, EQ-5D, and Marx	CAT 4.6 q, ASES 11 q, WOSI 21 q, SF-36 PF 10 q, Marx 7q	Excellent correlation: SF-36 PF (r = 0.72); excellent-to-good correlation: ASES (r = 0.67) and PROMIS Upper Extremity (r = 0.63); good correlation: EQ-5D (r = 0.59) and WOSI (r = 0.49); no ceiling effects
Anthony et al. ⁴⁵ (2017)	Shoulder instability (n = 70)	Upper extremity item bank	ASES, WOSI, SF-36 PF, EQ-5D, and Marx	Item bank 16 q	Excellent correlation: SF-36 PF (r = 0.78) and ASES (r = 0.71); excellent-to-good correlation: EQ-5D (r = 0.66), WOSI (r = 0.63), and PROMIS physical function (r = 0.63); substantial ceiling effects in patients under age 21 (35% of patients under age 21)
Beckmann et al. ⁴⁶ (2015)	Rotator cuff (n = 187)	Physical function	SST and ASES	CAT 4.3 q, SST 12 q	Moderate correlation with SST (r = 0.635) and ASES (r = 0.581); limited floor and ceiling effects (0.5% to 6% for all except SST floor of 21%)
Robins et al. ⁴⁷ (2017)	General shoulder (n = 415)	Physical function	SST and ASES	CAT 61 sec vs. SST/ASES 255 sec	Moderate-to-high correlations (r = 0.50 to 0.82) and minimal floor and ceiling effects (0% to 7.5%)
Overbeek et al. ⁴⁹ (2015)	Outpatient hand clinics (n = 93)	Physical function, pain-interference, depression	QuickDASH	QuickDASH 11 q	Correlations: r = -0.55 for QuickDASH vs. PF-CAT, r = 0.74 for QuickDASH vs. pain-CAT, and r = 0.34 for QuickDASH vs. depression-CAT; r = -0.51 for PF-CAT vs. pain-CAT, and r = -0.35 for PF-CAT vs. depression-CAT
Tyser et al. ⁴⁸ (2014)	Hand and upper extremity clinic (n = 136)	Physical function	DASH	CAT 5q, DASH 30 q	Correlation: r = 0.726. Floor: DASH, 5%; PF-CAT, 0%. Ceiling: DASH, 1%; PF-CAT, 0%
Papuga et al. ⁴⁴ (2014)	ACL reconstruction (n = 106)	Physical function	IKDC	CAT 85 secs vs. IKDC 195 sec	Excellent correlation (r = 0.90)
Robins et al. ⁴⁷ (2017)	General knee (n = 450)	Physical function	IKDC and SANE	CAT 55 secs vs. IKDC 258 sec	Moderate-to-high correlations (range, r = 0.60 to 0.75). Minimal floor and ceiling effects for PF-CAT (0.2% to 0.4%). No floor or ceiling effect for IKDC
Hung et al. ⁵⁰ (2014)	Surgical foot and ankle (n = 331)	Physical function	FAAM-ADL and FFI-5pt	FAAM 179 sec, FFI 194 secs, CAT 44 sec	Excellent item and person reliabilities (>0.9), moderate correlation for PF vs. FFI (r = 0.685), moderate correlation for PF vs. FAAM (r = 0.792), moderate correlation for FAAM-ADL vs. FFI-5pt (r = 0.785)
Hung et al. ⁵¹ (2014)	General spinal disorders (n = 438)	Physical function databank	NA	NA	Ceiling 1.7%, floor 0.2%, and high item and person reliability (>0.99)

*PROMIS = Patient-Reported Outcomes Measurement Information System, CAT = Computer Adaptive Test, ASES = American Shoulder and Elbow Surgeons, WOSI = Western Ontario Shoulder Instability Index, SF-36 PF = Short Form-36 Health Survey Physical Function subscale, EQ-5D = EuroQol 5D, Marx = Marx shoulder activity scale, q = questions, SST = Simple Shoulder Test, sec = seconds, DASH = Disabilities of the Arm, Shoulder and Hand, QuickDASH = an abbreviated version of DASH, PF-CAT = PROMIS Physical Function Computer Adaptive Test, ACL = anterior cruciate ligament, IKDC = International Knee Documentation Committee, SANE = Single Assessment

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Numerical Evaluation, FAAM-ADL = Foot and Ankle Ability Measure–Activities of Daily Living subscale, FFI-5pt = Foot Function Index 5-point verbal rating scale, and NA = not available.