Supplemental table 1. PROMIS scale characteristics in CLUES cohort by race/ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | % at floor | | | |  | % at ceiling | | | |  | Cronbach’s alpha | | | |
|  | White | Hispanic | Black | Asian |  | White | Hispanic | Black | Asian |  | White | Hispanic | Black | Asian |
| **Physical Health** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Physical Function | 0.8 | 1.0 | 2.1 | 0.7 |  | 21.5 | 19.8 | 12.8 | 22.8 |  | .941 | .95 | .901 | .951 |
| Pain Interference | 1.6 | 3.2 | 4.7 | 1.4 |  | 36.4 | 31.6 | 27.9 | 9.7 |  | .94 | .96 | .95 | .94 |
| Fatigue | 8.5 | 3.1 | 4.4 | 3.5 |  | 10.8 | 14.6 | 4.4 | 1.4 |  | .96 | .96 | .91 | .95 |
| Sleep Disturbance | 2.3 | 4.2 | 4.3 | 2.1 |  | 3.9 | 3.1 | 2.1 | 4.2 |  | .762,3 | .80 | .78 | .86 |
| Sleep Impairment | 0.8 | 1.0 | 2.1 | 0.9 |  | 5.4 | 1.0 | 4.3 | 5.9 |  | .934 | .924 | .914 | .914 |
| **Mental Health** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cognition, Ability | 4.6 | 2.1 | 8.5 | 0.9 |  | 16.9 | 11.6 | 6.4 | 18.0 |  | .93 | .87 | .785 | .90 |
| Psychosocial Illness Impact, Negative | 1.6 | 1.5 | 2.2 | 0.9 |  | 10.5 | 13.6 | 19.6 | 10.9 |  | .806 | .786 | .796 | .796 |
| Psychosocial Illness Impact, Positive | 0.8 | 1.5 | 4.6 | 1.8 |  | 22.0 | 22.7 | 13.6 | 25.2 |  | .80 | .85 | .707 | .78 |
| **Social Health** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ability to Participate Social Roles, Activities | 4.2 | 3.3 | 4.9 | 1.8 |  | 23.3 | 28.6 | 9.8 | 31.3 |  | .97 | .96 | .94 | .96 |
| Satisfaction, Discretionary Social Activities | 3.1 | 1.0 | 2.2 | 0.9 |  | 17.2 | 18.8 | 17.4 | 27.1 |  | .96 | .95 | .91 | .95 |
| Satisfaction, Social Roles | 1.6 | 3.1 | 4.4 | 0.9 |  | 23.6 | 19.8 | 19.6 | 32.5 |  | .96 | .96 | .95 | .96 |
| Social Isolation | 2.4 | 2.1 | 4.3 | 0.9 |  | 23.6 | 33.0 | 14.9 | 34.5 |  | .90 | .92 | .86 | .92 |

Item-total correlations ≥0.5 except as noted

1. Physical Function, limitations in vigorous activity: W, r = 0.46; B, r=0.43; A, r = 0.48
2. Sleep Disturbance, “My sleep was refreshing”: W, r = 0.48;
3. Sleep Disturbance, “I had difficulty falling asleep”: W, r = 0.47
4. Sleep Impairment, “I felt alert when I woke up”: W, r = 0.41; H, r = 0.43; B, r=0.45; A, r = 0.36
5. Cognitive, “I have been able to keep track of what I am doing, even if I am interrupted”: B, r=0.30
6. Psychosocial Illness Impact Negative, “I worry about the future”: W, r = 0.42; H, r = 0.46; B, r=0.45; A, r=0.45
7. Psychosocial Illness Impact Positive, ”I am comfortable with who I am”: B, r=0.39

W = White; H = Hispanic; B = Black; A = Asian

Note: “Other” racial/ethnic group omitted because of small sample (n = 13)

Supplemental Table 2. Correlations of PROMIS scales with SF-36 scales, by race/ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SF-36 PF | | | |  | SF-36 Pain | | | | |  | | SF-36 Vitality | | | |  | SF-36 Social Functioning | | | | |  | | SF-36 Mental Health | | | | |
|  | W | H | B | A |  | W | H | B | A |  | | W | | H | B | A |  | W | H | B | A |  | | W | | H | B | A |
| **Physical Health** |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  |  |  |  |  |  | |  | |  |  |  |
| Physical Function | 0.95 | 0.95 | 0.93 | 0.94 |  |  |  |  |  |  | |  | |  |  |  |  |  |  |  |  |  | |  | |  |  |  |
| Pain Interference |  |  |  |  |  | -0.80 | -0.76 | -0.79 | -0.75 |  | |  | |  |  |  |  |  |  |  |  |  | |  | |  |  |  |
| Fatigue |  |  |  |  |  |  |  |  |  |  | | -0.85 | | -0.78 | -0.77 | -0.79 |  |  |  |  |  |  | |  | |  |  |  |
| Sleep Disturbance |  |  |  |  |  |  |  |  |  |  | | -0.56 | | -0.51 | -0.61 | -0.59 |  |  |  |  |  |  | |  | |  |  |  |
| Sleep Impairment |  |  |  |  |  |  |  |  |  |  | | -0.80 | | -0.78 | -0.67 | -0.82 |  |  |  |  |  |  | |  | |  |  |  |
| **Mental Health** |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  |  |  |  |  |  | |  | |  |  |  |
| Cognition, Concerns |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  |  |  |  |  |  | | 0.35 | | 0.55 | 0.42 | 0.41 |
| Psychosocial Illness Impact, Negative |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  |  |  |  |  |  | | -0.58 | | -0.66 | -0.58 | -0.63 |
| Psychosocial Illness Impact, Positive |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  |  |  |  |  |  | | 0.60 | | 0.47 | 0.36 | 0.54 |
| **Social Health** |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  |  |  |  |  |  | |  | |  |  |  |
| Ability to Participate Social Roles, Activities |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  | 0.72 | 0.69 | 0.54 | 0.70 |  | |  | |  |  |  |
| Satisfaction, Discretionary Social Activities |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  | 0.69 | 0.69 | 0.49 | 0.64 |  | |  | |  |  |  |
| Satisfaction, Social Roles |  |  |  |  |  |  |  |  |  |  | |  | |  |  |  |  | 0.71 | 0.66 | 0.45 | 0.63 |  | |  | |  |  |  |

W = White; H = Hispanic; B = Black; A = Asian

Note: “Other” racial/ethnic group omitted because of small sample (n = 13)

Supplemental Table 3. Correlations of PROMIS scales with SLE disease activity and damage measures, by race/ethnicity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Physician-reported measures | | | | | | | | |  | Patient-reported measures | | | | | | | | |
|  | SLEDAI | | | |  | SDI | | | |  | SLAQ | | | |  | BILD | | | |
|  | W | H | B | A |  | W | H | B | A |  | W | H | B | A |  | W | H | B | A |
| **Physical Health** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Physical Function | -0.01 | **0.24** | -0.15 | 0.04 |  | **-0.38** | -0.20 | -0.12 | **-0.37** |  | **-0.69** | **-0.60** | **-0.43** | **-0.52** |  | **-0.52** | **-0.27** | -0.23 | **-0.32** |
| Pain Interference | 0.08 | -0.09 | 0.02 | -0.11 |  | **0.32** | 0.00 | 0.10 | **0.19** |  | **0.64** | **0.65** | **0.52** | **0.67** |  | **0.39** | 0.12 | 0.21 | **0.26** |
| Fatigue | 0.02 | -0.06 | 0.02 | 0.00 |  | **0.27** | -0.10 | 0.00 | 0.12 |  | **0.65** | **0.66** | **0.59** | **0.72** |  | **0.30** | 0.07 | 0.04 | 0.10 |
| Sleep Disturbance | -0.04 | 0.06 | 0.10 | -0.05 |  | 0.06 | -0.10 | 0.10 | -0.02 |  | **0.37** | **0.44** | **0.46** | **0.48** |  | **0.17** | 0.04 | 0.16 | -0.05 |
| Sleep Impairment | 0.07 | -0.12 | -0.09 | -0.03 |  | **0.24** | -0.06 | -0.12 | 0.07 |  | **0.62** | **0.58** | **0.43** | **0.66** |  | **0.29** | 0.10 | 0.11 | 0.04 |
| **Mental Health** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cognition, Ability | -0.13 | -0.02 | 0.07 | 0.06 |  | **-0.31** | 0.02 | 0.06 | -0.11 |  | **-0.55** | **-0.51** | -0.07 | **-0.35** |  | **-0.33** | -0.13 | -0.02 | -0.13 |
| Psychosocial Illness Impact, Negative | 0.15 | 0.08 | -0.06 | -0.04 |  | 0.20 | -0.04 | -0.13 | 0.11 |  | **0.54** | **0.42** | **0.35** | **0.35** |  | **0.20** | 0.03 | 0.05 | 0.11 |
| Psychosocial Illness Impact, Positive | -0.16 | 0.09 | -0.04 | 0.06 |  | **-0.24** | 0.10 | -0.16 | -0.04 |  | **-0.44** | **-0.47** | -0.19 | **-0.32** |  | **-0.20** | -0.08 | -0.19 | -0.11 |
| **Social Health** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ability to Participate Social Roles, Activities | -0.03 | 0.19 | -0.12 | -0.07 |  | **-0.37** | -0.06 | -0.01 | **-0.23** |  | **-0.63** | **-0.58** | **-0.58** | **-0.55** |  | **-0.35** | **-0.21** | -0.16 | **-0.25** |
| Satisfaction, Discretionary Social Activities | -0.07 | 0.06 | -0.08 | 0.01 |  | **-0.36** | 0.04 | -0.01 | **-0.33** |  | **-0.58** | **-0.60** | **-0.48** | **-0.57** |  | **-0.30** | -0.00 | **-0.34** | **-0.22** |
| Satisfaction, Social Roles | -0.09 | 0.01 | 0.13 | 0.05 |  | **-0.34** | -0.02 | 0.08 | **-0.27** |  | **-0.63** | **-0.54** | **-0.44** | **-0.53** |  | **-0.38** | 0.05 | -0.20 | **-0.18** |
| Social Isolation | 0.03 | -0.07 | -0.19 | -0.00 |  | 0.13 | -0.00 | 0.05 | 0.09 |  | **0.45** | **0.39** | **0.39** | **0.54** |  | **0.22** | 0.10 | 0.12 | 0.17 |

W = White; H = Hispanic; A = Asian

SLAQ = Systemic Lupus Activity Questionnaire; BILD = Brief Index of Lupus Damage;

SLEDAI = Systemic Lupus Erythematosus Disease Activity Index; SDI = SLICC/ACR Damage Index

Note: “Other” racial/ethnic group omitted because of small sample (n = 13)