

Psychometric Validation of PROMIS Global Health Using EQ-5D-3L in a Representative Korean Adult Sample

Jiseon Lee^{1, 2}, Youngha Kim², Yeonjung Lim^{1, 2}, Danbee Kang^{1, 2, †}, Juhee Cho^{1, 2, †}

¹Department of Clinical Research Design & Evaluation, SAIHST, Sungkyunkwan University

²Center for Clinical Epidemiology, Samsung Medical Center, Seoul, Korea



OBJECTIVE

PROMIS Global Health assesses overall health across physical and mental domains. This study validated the Korean version in a representative adult sample, using EQ-5D-3L as the legacy measure.

METHODS

Design

National survey

Study population

Representative Korean general population aged 18-85 years old

Measurements

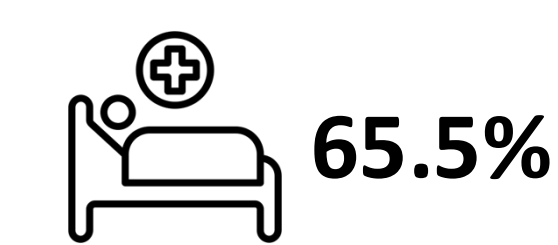
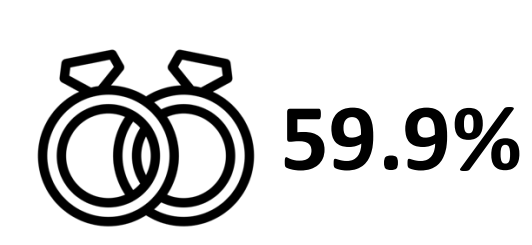
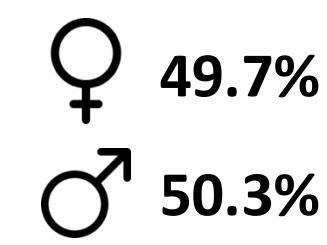
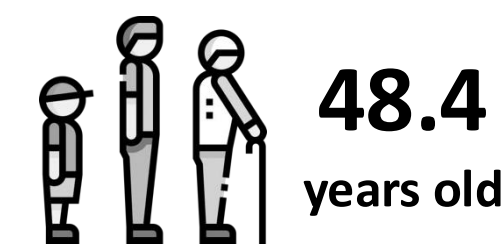
- PROMIS Global Health v1.2
- EQ-5D-3L

Statistical analysis

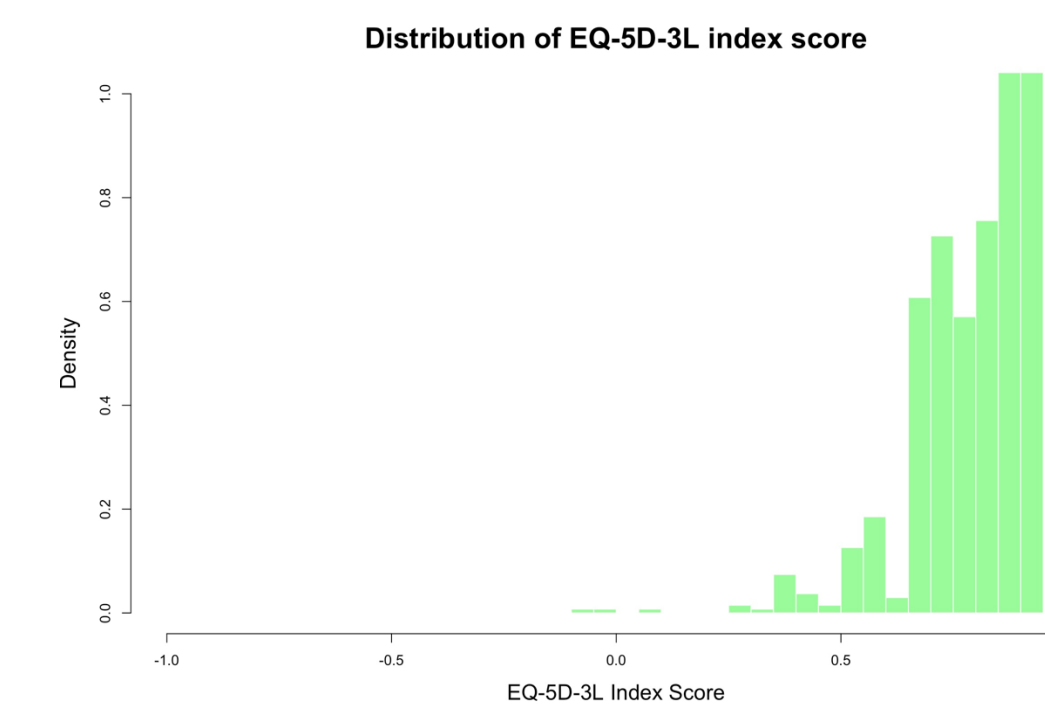
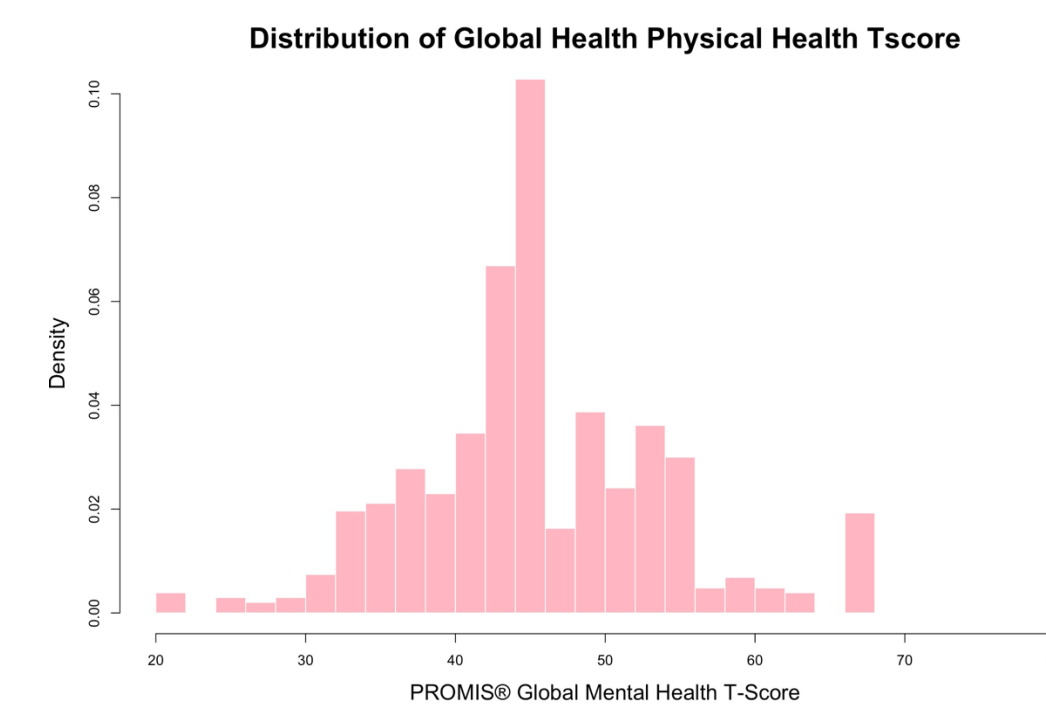
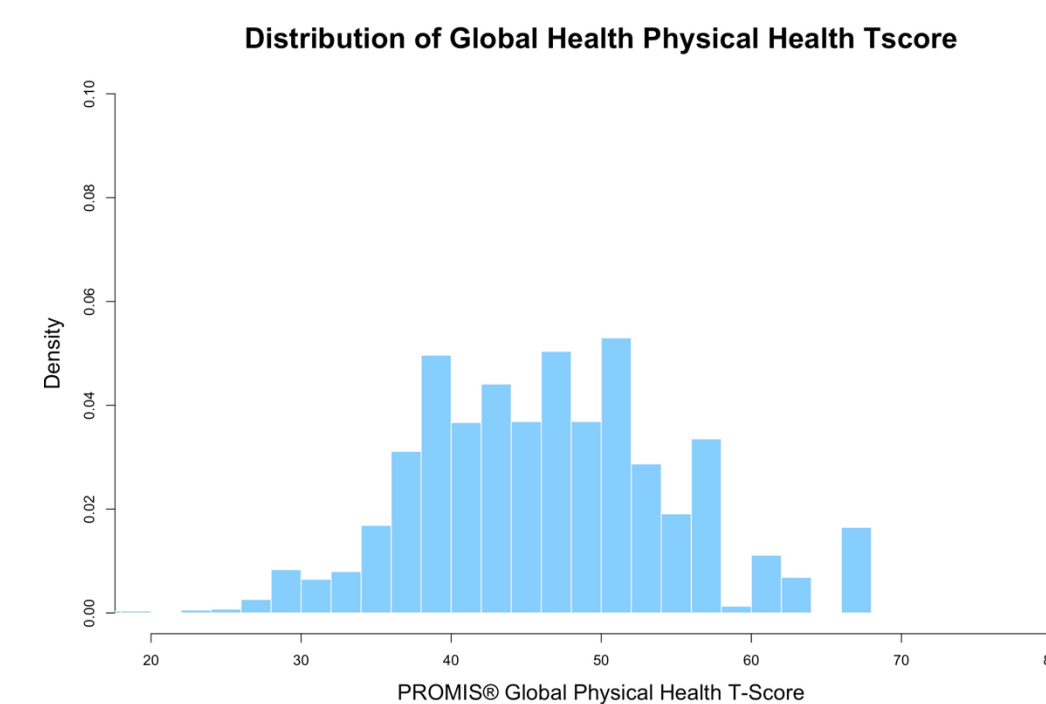
- Descriptive analysis
- Convergent validity
- Known-group validity

RESULTS

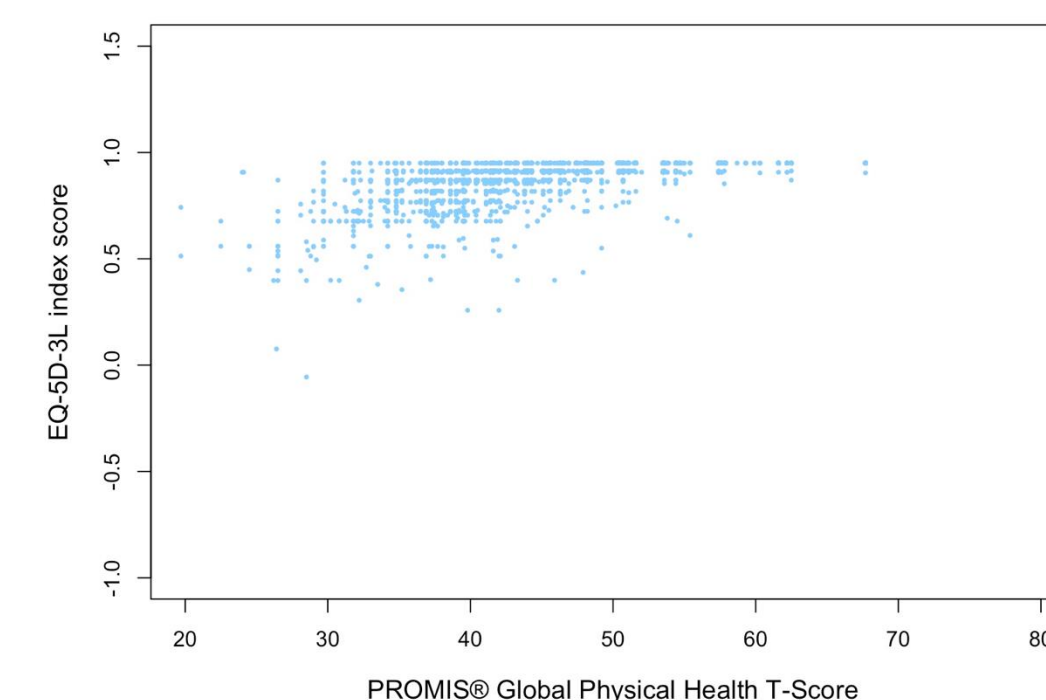
Characteristics of study participants (N = 2,699)



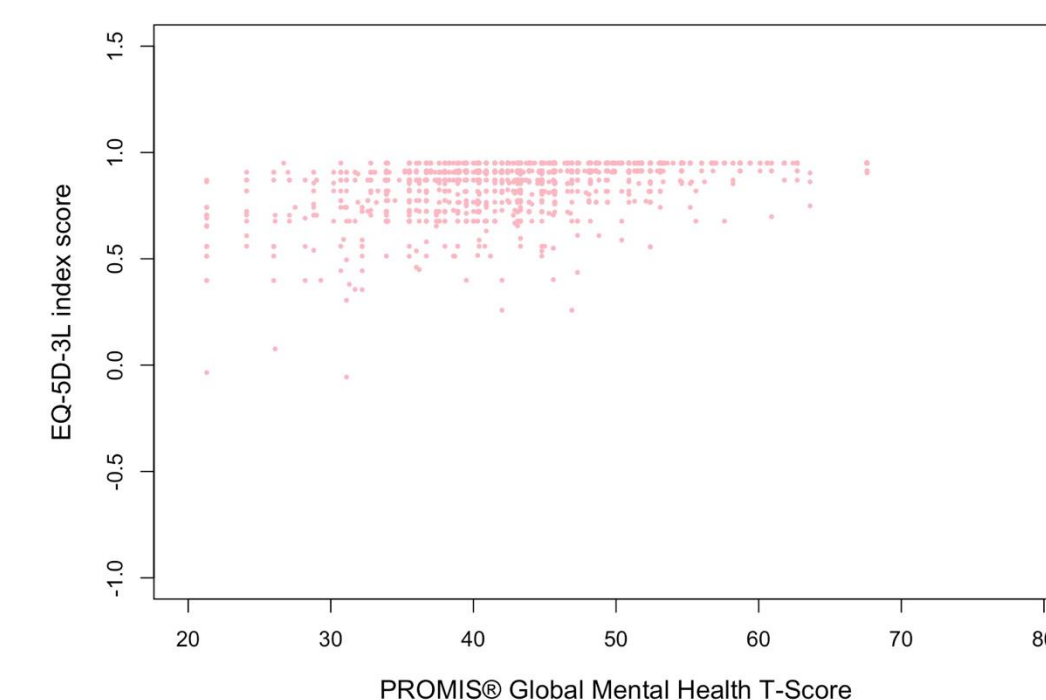
Histogram of PROMIS Global Health T-score and EQ-5D-3L index score



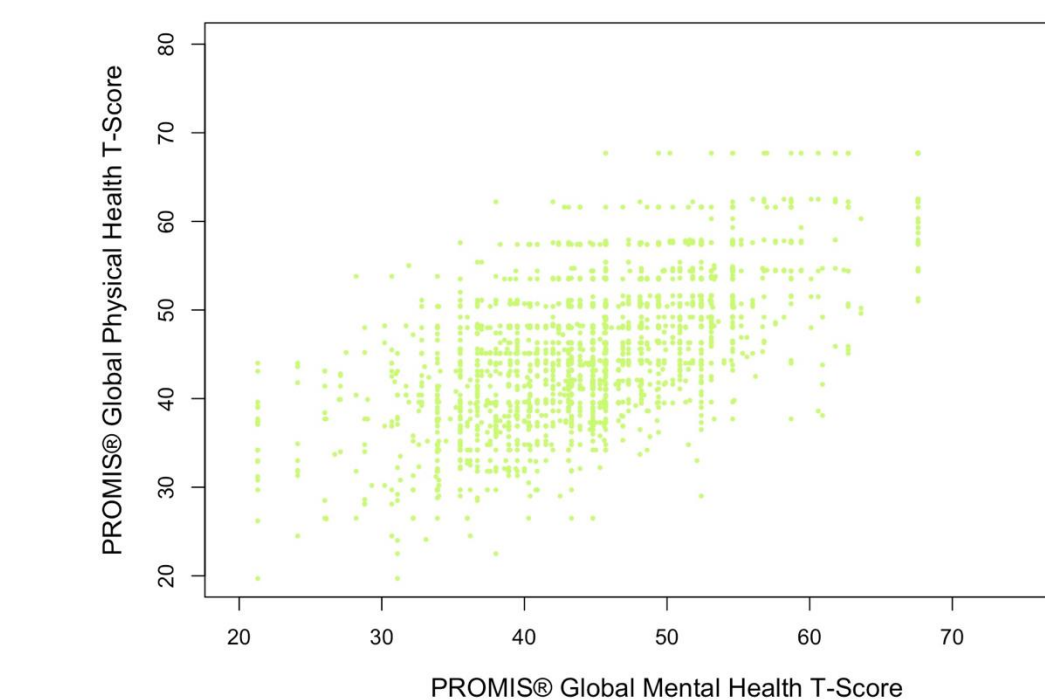
Scatter plots



PROMIS Physical Health T-score vs. EQ-5D-3L Index



PROMIS Mental Health T-score vs. EQ-5D-3L Index



PROMIS Mental Health T-score vs. PROMIS Physical Health T-score

CONCLUSION

The Korean version of PROMIS Global Health demonstrated superior distributional characteristics (avoiding the ceiling effect), strong convergent validity with the EQ-5D-3L, and sensitivity to health status, thereby validating its use as a reliable and valid tool for measuring global health in the Korean population.

ACKNOWLEDGEMENT

This research was supported by the Basic Science Research Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Education (2020R111A2074210)

REFERENCES

- 1) Panchagnula S, et al. Validating the Transformation of PROMIS-GH to EQ-5D in Adult Spine Patients. *J Clin Med.* 2019
- 2) Hays RD, et al. Development of physical and mental health summary scores from the patient-reported outcomes measurement information system (PROMIS) global items. *Qual Life Res.* 2009
- 3) Rencz F, Brodszky V, Janssen MF. A Direct Comparison of the Measurement Properties of EQ-5D-5L, PROMIS-29+2 and PROMIS Global Health Instruments and EQ-5D-5L and PROPr Utilities in a General Population Sample. *Value Health.* 2023