

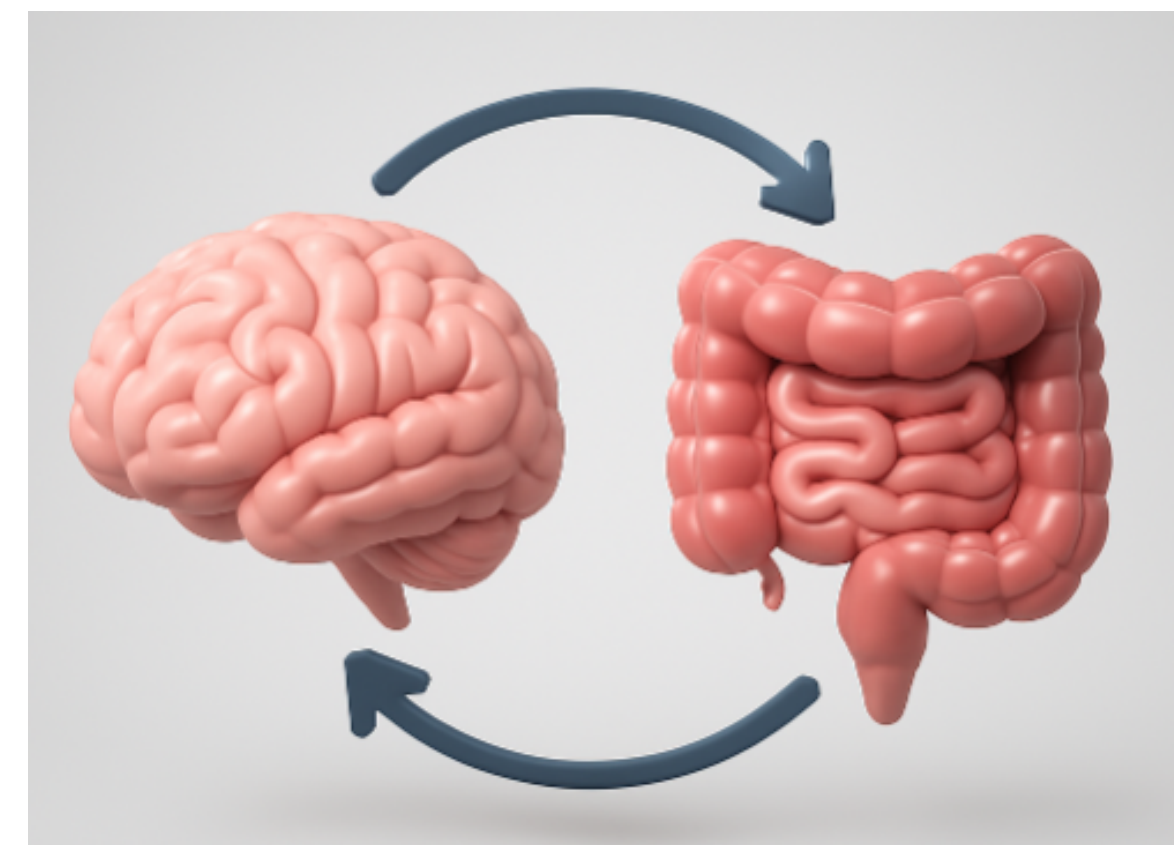
Application of PROMIS to Address the Physical and Psychosocial Burden of Pediatric Cyclic Vomiting Syndrome

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BACKGROUND

Cyclic vomiting syndrome (CVS) is a disorder of gut-brain interaction (DGBI) manifested by recurrent episodes of vomiting lasting hours to days between periods of baseline health. The **multidisciplinary pediatric CVS Program** at Children's Wisconsin uses **PROMIS Pediatric Global Health Scale (PGH-7)** child- and parent-proxy reports to guide care. To further develop multidisciplinary services, we characterized demographics, clinical features, and global health using the PROMIS PGH-7 to identify areas of need in this **quality improvement project**.

METHODS



Retrospective chart review of patients evaluated in a pediatric CVS program April 2022-March 2025

- Demographics
- Diagnoses
- PROMIS PGH-7 scores (self- and caregiver-report)

Descriptive statistics, correlations, and t-tests analyzed using R

RESULTS

Demographics

- $n=182$ children
- Ages 3-18 ($M=11.29$)
- 57.1% female
- 85.7% White
- From 19 US states (73.6% Wisconsin) and 1 Canadian territory

Diagnoses

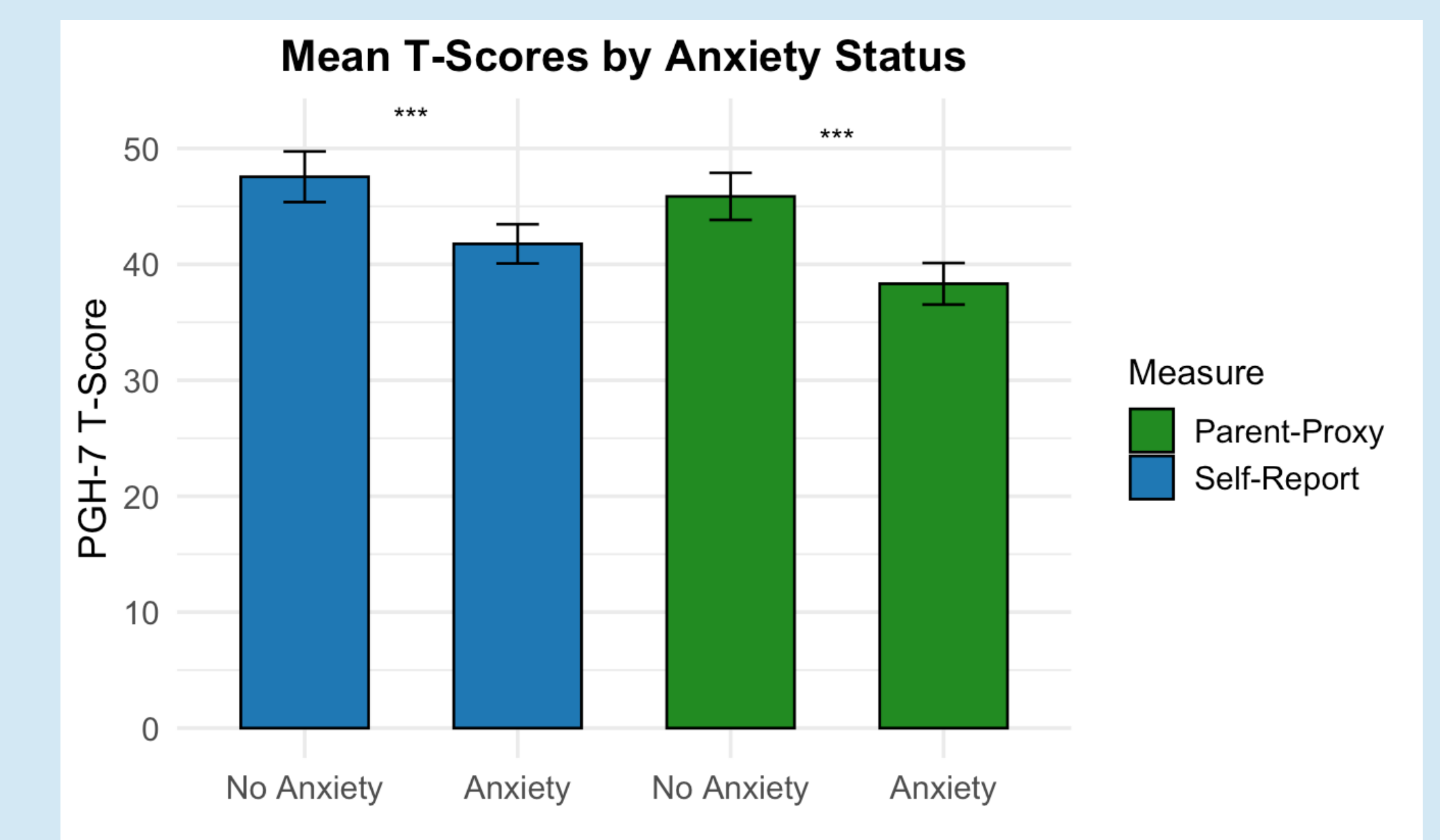
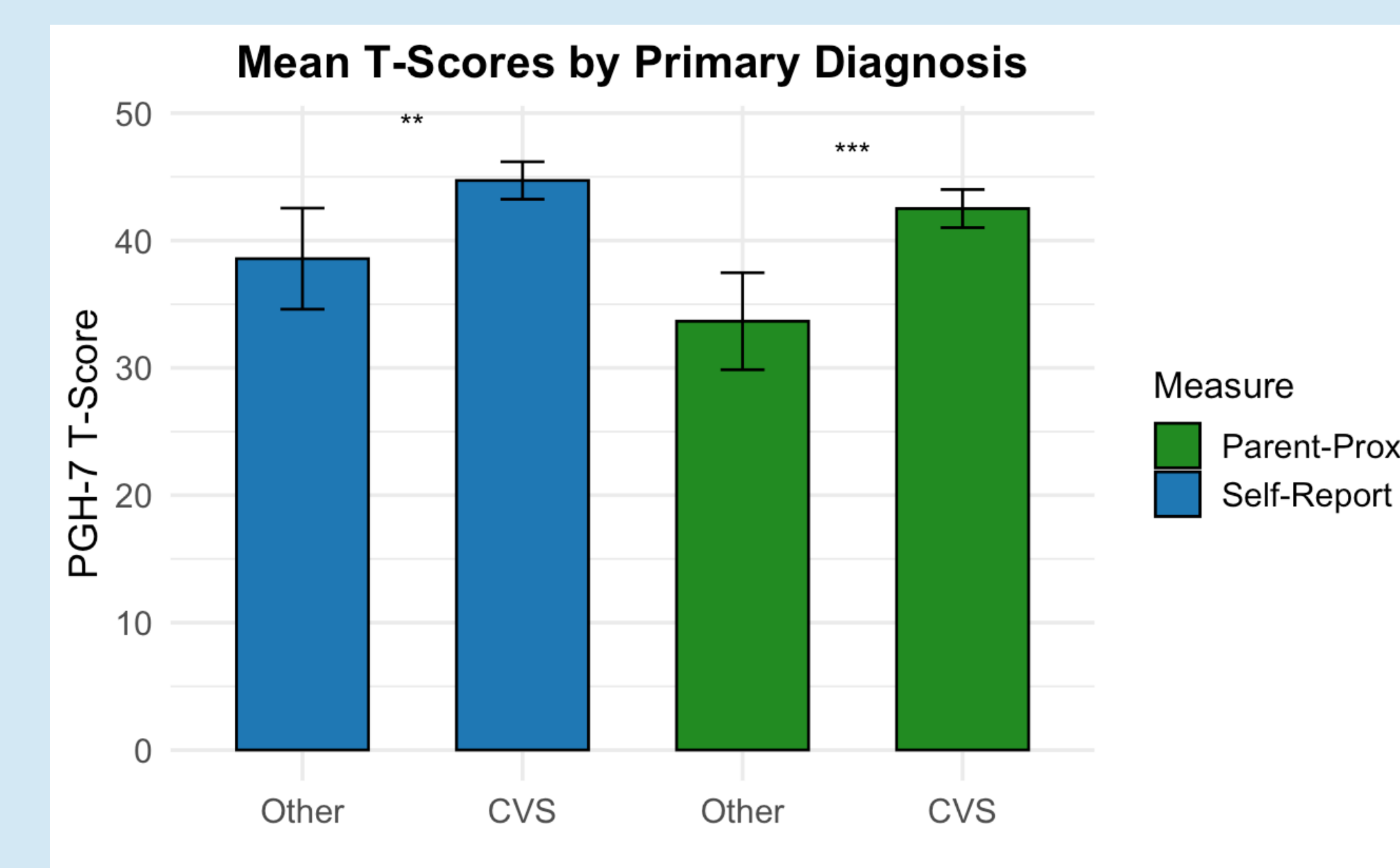
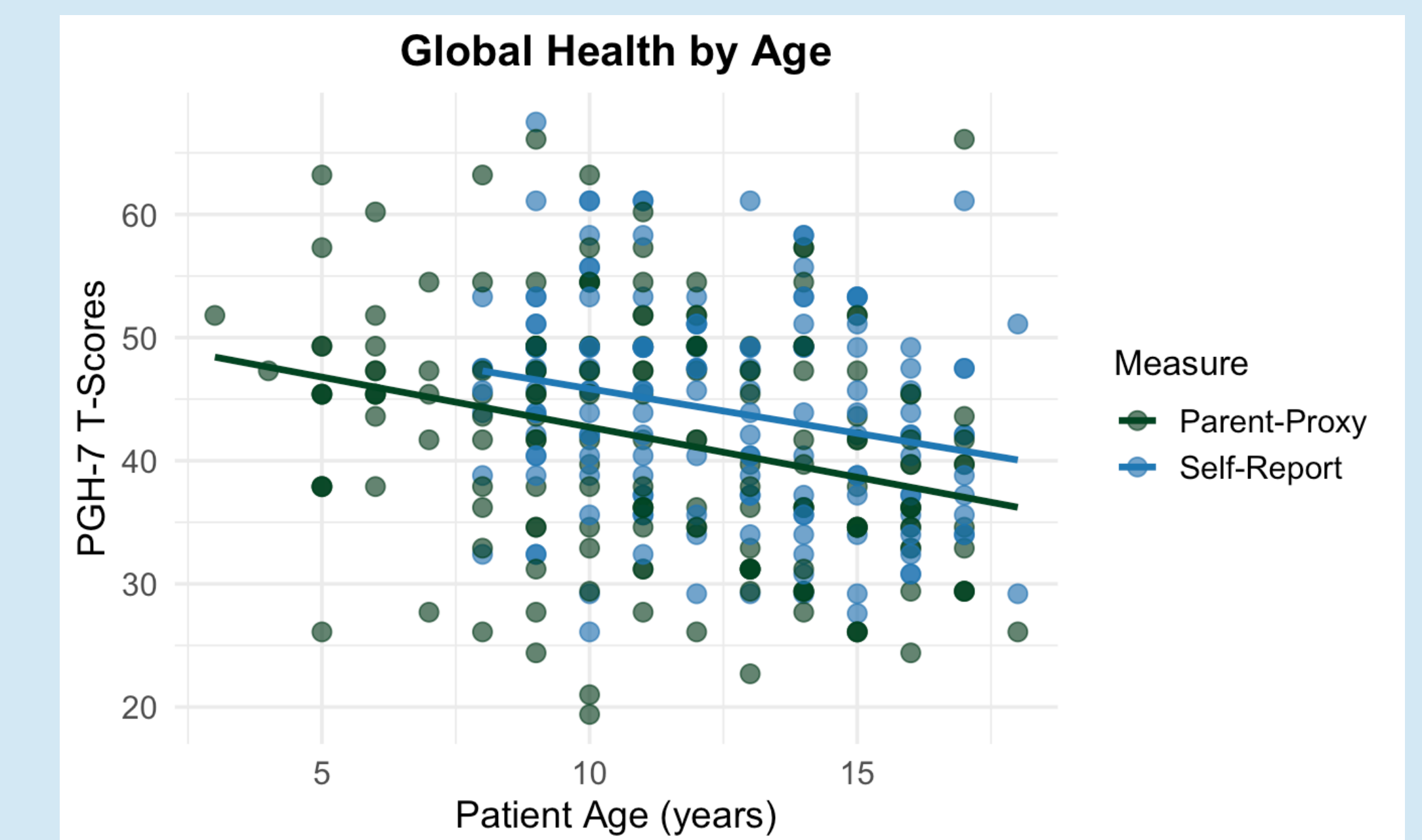
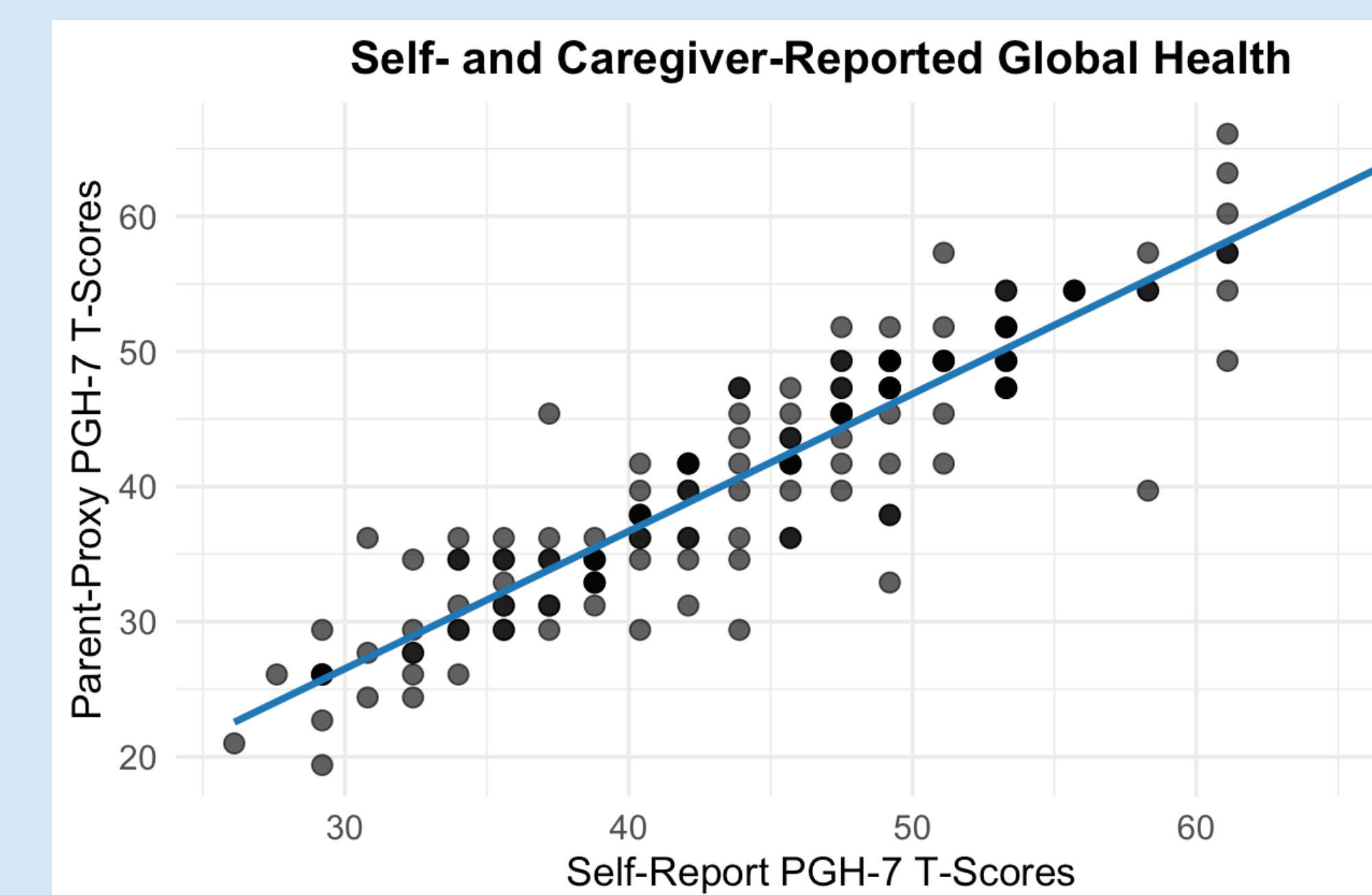
- CVS 91.2%, other DGBI 47.3%, dysautonomia 32.4%
- Anxiety 56%, depression 10.4%, ADHD 17.6%

PROMIS PGH-7 T-Scores (self-report, parent-proxy)

- Lower than average ($M=44.09$, $M=41.71$)
- Self- and caregiver reports correlated ($r = 0.91$, $p < 0.001$)
- Older age associated with lower scores ($r = -0.23$, $p = 0.005$; $r = -0.3$, $p < 0.001$)
- Higher scores in those with primary diagnosis of CVS ($p = 0.006$, $p < 0.001$)
- Lower scores in those with other DGBI ($p = 0.01$, $p = 0.001$) and dysautonomia (p 's < 0.001)
- Lower scores in those with concurrent anxiety (p 's < 0.001), depression ($p = 0.02$, $p = 0.002$), and ADHD ($p = 0.02$, $p = 0.01$)

In children with CVS, older age, comorbid DGBI or dysautonomia, and anxiety, depression, and ADHD are related to worse global health.

Multidisciplinary, multi-targeted care is necessary for pediatric CVS.



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