



## **Assessing Psychological Stress Experiences in Children with Autism Spectrum Disorder: A DBPNet Study**

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**Background:** Psychological stress predisposes children to the development of physical and mental disorders. Underlying impairment in social interaction and communication may alter the experience of psychological stress of those with Autism Spectrum Disorder (ASD). Currently there is no gold standard measure of psychological stress in children with ASD. The PROMIS® measure of children's psychological stress is a potential measure.

**Objectives:** To validate the PROMIS measure as a measure of parent reported psychological stress in 5-12 year old children with ASD, and test the hypotheses that higher levels of ASD-specific symptom severity, parenting stress, and parental depression are associated with higher levels of psychological stress in children with ASD.

**Design/Methods:** 69 children with an ASD diagnosis confirmed by Autism Diagnostic Observation Schedule or Childhood Autism Rating Scale were identified at 3 academic medical centers. Parents/guardians completed data collection via computer including demographics, the PROMIS measure, the Social Responsiveness Scale 2<sup>nd</sup> Ed. (SRS-2), Parenting Stress Index 4<sup>th</sup> Ed. Short Form (PSI-4-SF), and PROMIS adult measure of depression. The PROMIS psychological stress measure provides a T-score that is normed on the US population of typically developing children (mean =50±10).

**Results:** Subjects: mean age 8.2 years (range 5-12), 90% male. Psychological stress T-scores were normally distributed (mean 58.7, median 59.2, SD 6.8, 95% CI [57.1;60.3]); children with ASD scored almost 1 SD higher than that of typically developing children, suggesting a higher level of psychological stress. One way ANOVA indicated that children with moderate to severe ASD symptoms on the SRS-2 had higher scores on the psychological stress measure than children with lower SRS-2 scores, 60.3±6.3 vs. 52.0±5.1 (p<.0001). Higher levels of parenting stress (r=.499) and parental depression (r=.462) were positively correlated with higher child stress (p<.001).

**Conclusions:** The PROMIS psychological stress measure performed as expected among children with ASD. Scores were elevated compared with typically developing children and correlated as hypothesized with other measures. These findings support its validity and utility as a parent report measure of psychological stress in children with ASD.

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