

Supplementary Material 1    Secondary caregiver and child measures

Measure	Subscales	Description	Psychometrics
Caregiver measures			
Depression, Anxiety, and Stress Scale-21 (DASS-21) [1]	Depression Anxiety Stress	A measure of psychological distress. Caregivers rate how often they experienced each item during the past week on a 4-point Likert scale (0 <i>Never</i> to 3 <i>Almost always</i> ). Higher scores indicate higher distress.	Good reliability (Cronbach's $\alpha$ ): Total score = 0.93 Depression = 0.88 Anxiety = 0.82 Stress = 0.90
Parenting Sense of Competence Scale (PSOC) [2]	Parental Satisfaction Parental Efficacy	A measure of caregivers' self-perceived parenting competency. Item wording was amended to be gender neutral (e.g., "parent" instead of "mother"). Caregivers rate each item on a 6-point Likert scale (1 <i>Strongly agree</i> to 6 <i>Strongly disagree</i> ). Higher scores indicate higher parental satisfaction/self-efficacy.	Acceptable reliability (Cronbach's $\alpha$ ): Total score = 0.79 Satisfaction = 0.75 Efficacy = 0.76
Child measures			
Social Responsiveness Scale, Second Edition Preschool Form (SRS-2) [3]	Social Awareness Social Cognition Social Communication Social Motivation Restricted Interests and Repetitive Behavior	Measure of incidence of social communication behaviors associated with autism. Caregivers rate how well each item describes their child over the last 6 months (1 <i>Not true</i> to 4 <i>Almost always true</i> ). Higher scores indicate a higher incidence of these social behaviors.	Good content validity, internal consistency (Cronbach's $\alpha = 0.95$ ), and test-retest reliability ( $r = 0.72$ - $0.82$ )
Pediatric Quality of Life Inventory Generic Core Scales (PedsQL 4.0) [4-5]	Physical functioning Emotional functioning Social functioning School functioning	Measure of children's quality of life. Caregivers asked to rate how often their child has encountered each issue in the previous month on a 4-point Likert scale (0 <i>Never</i> to 3 <i>Almost always</i> ). Lower scores reflect higher quality of life.	Acceptable to good reliability for 2-year-olds (Cronbach's $\alpha$ ) [6] Total = 0.89 Physical = 0.87 Psychosocial = 0.81 Emotional = 0.75 Social = 0.78

			Poor reliability for School functioning = 0.59 [6]
			Acceptable to good reliability for 3-year-olds (Cronbach's $\alpha$ ) [6] Total = 0.90 Physical = 0.87 Psychosocial = 0.81 Emotional = 0.77 Social = 0.74 School = 0.69
Strengths and Difficulties Questionnaire (SDQ) [7]	Conduct Problems Emotional Symptoms Inattention/Hyperactivity Peer Relationship Problems Prosocial Behavior	Measure of behavior. Scores on the first four subscales are combined to give a Total Difficulties Score (higher scores represents greater difficulty). Prosocial Behavior subscale is scored separately; a higher score represents more prosocial behavior. Caregivers rate each item on how well it describes their child over the previous six months using a 3-point Likert scale (0 <i>Not true</i> to 2 <i>Certainly true</i> ).	Acceptable reliability for all 2-year-olds (Cronbach's $\alpha$ ) [8] Total Difficulties = 0.84 Conduct Problems = 0.74 Emotional Symptoms = 0.75 Inattention/Hyperactivity = 0.71 Prosocial Behavior = 0.71  Poor reliability for Peer Relationship Problems = 0.54 [8]  Acceptable reliability for all 3.5-year-olds (Cronbach's $\alpha$ ; McDonald's $\omega$ ) [9] Total = 0.78; 0.76 Conduct Problems = 0.67; 0.68 Inattention/Hyper. = 0.72; 0.75 Prosocial behavior 0.64; 0.64

			Poor reliability for Emotional (Cronbach's $\alpha = 0.58$ , McDonald's $\omega = 0.59$ ) and Peer Problems do not (Cronbach's $\alpha = 0.53$ , McDonald's $\omega = 0.54$ ) [9]
Systematic Analysis of Language Transcripts, New Zealand/Australia (SALT-NZAU 16) [10]	-	SALT-NZAU computer software will be used to measure children's speech from pre- to post-participation and follow-up. Software will be used to transcribe and analyze children's language use during 10min videos, including total number of utterances, words, and use of different words, as well as mean lengths of utterances in words and morphemes, percentage of grammatically accurate utterances, percentage of maze words, and percentage of intelligible utterances. At least two trained coders will use the software and inter-rater reliability will be calculated for a subset of videos.	-

## References

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