Title: Language Dysfluencies in Families with Adult Children with Autism Spectrum Disorder

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Introduction: Adolescents and adults with ASD produce more dysfluencies than their typically developing peers1,2. Dysfluencies include repetitions (i.e., repeating parts of words, whole words, or phrases), revisions (i.e., reformulating a sentence after beginning it), filled pauses (e.g., “um” or “uh”), and orphans (i.e., an incomplete sentence). Dysfluencies are considered to be a reflection of aspects of executive functioning, specifically planning and organization. Executive functioning deficits are common in individuals with ASD, and are also impaired in their parents; specifically, fathers of children with ASD have been found to have notable deficits in planning3. Our first research question examined the relationships of dysfluencies within families; we hypothesized that the dysfluencies of the adult child would be related to both mother and father dysfluencies, per previous findings on deficits in executive functioning within families with children with ASD. We also asked if dysfluencies were related to quality of life measures for the adults with ASD, given the importance of executive functioning for scholastic achievement and adaptive behaviors during the school years4,5.

Method: Sixteen families participated in this study as part of the baseline data collection of a larger intervention study focused on improving work outcomes for adults with ASD. Fifteen of these families were triads, while one family included a mother, father, and two sons. The adult children (14 males, 3 females) were between 18 and 28 years of age (M = 22.36, SD = 2.81) and had IQ scores ranging from 82 to 133 (M = 109.75, SD = 16.90). During the baseline data collection, mothers, fathers, and the adult children were all asked to provide five minute speech samples. Mothers and fathers were prompted to talk about their son or daughter for five minutes, while the adult children were asked to give two, five minute speech samples, one about their mother and one about their father. All the adult children but one did not reach their five minute time allotment on at least one sample. Therefore, both samples from the adult children were combined in order to match all three groups on the total number of utterances produced. The five minute speech samples were transcribed in the Systematic Analysis of Language Transcription software (SALT), and coded for dysfluencies including filled pauses, orphans, repetitions, and revisions. Following methods from Sterling et al., (2013), orphans, repetitions, and revisions were added together to create a summary score for total dysfluencies. We used Spearman correlations to examine the dysfluencies of the adult child in relation to his or her mother and father. For our second research question, quality of life was measured using the World Health Organization Quality of Life BREF (WHOQOL-BREF). Domains in this assessment include physical health, psychological health, social relationships, and environment. We used Spearman correlations to examine the relationships between quality of life and dysfluencies in the adult children with ASD.

Result: Filled pauses and orphans were not significantly correlated between child and father. However, repetitions (r = .63, p = .006), revisions (r = .67, p = .004) and total dysfluencies (r = .72, p = .001) were significantly related for the adult child and father. The adult child and mother were not significantly related on any measure of dysfluency. Filled pauses were related to social relationships (r = .56, p = .023 and environment (r = .78, p < .001) on the WHOQOL-BREF. Abandoned utterances were related to psychological health (r = .76, p = .001) on the WHOQOL-BREF.

Discussion: The relationships found between the father and his adult child on repetitions, revisions, and total dysfluencies are likely a reflection of executive functioning deficits, given prior findings of executive function deficits in individuals with ASD and their family members. However, it is interesting to consider that dysfluencies of the adult children were correlated with only the fathers’ dysfluencies, not the mothers’. This is potentially related to the marked deficits in planning found in fathers of children with ASD3. Additionally, the relationships between dysfluencies and quality of life for the adult children with ASD support prior findings of the importance of executive functioning on outcomes in this population. Additional implications will be discussed in the poster.
References/Citations: