

# 2021 Gatlinburg Conference Poster Submission

**Title:** Examining Verbal Ability as a Moderator between Mother-Child Relationship Quality and Child Maladaptive Behaviors in ASD

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**Introduction:** Approximately 30% of individuals with autism spectrum disorder (ASD) will remain minimally verbal throughout their lives, and this percentage may increase for individuals with ASD and co-occurring intellectual disability (ASD+ID; Maltman et al., in press; Rose et al., 2016). To date, little research includes this relatively large subgroup of individuals with ASD with minimal verbal abilities, particularly into adolescence and adulthood. This represents a critical gap in knowledge given that individuals without the ability to communicate verbally may behave and interact in different ways. Individuals with ASD often present with heightened maladaptive behaviors (Shattuck et al., 2007). It is currently unclear if and in what ways the behavioral profile of minimally verbal individuals with ASD+ID may differ from that of verbal adolescents and adults with ASD+ID. Parent-child relationship quality may also be impacted when a child is unable to verbally communicate with their parent. Examining child maladaptive behaviors and mother-child relationship quality in tandem is important given previous research establishing a bidirectional relationship between relationship quality and maladaptive behaviors in ASD (Greenberg et al., 2006; Smith et al., 2008). This reciprocal relationship may be impacted by a number of factors, and in this study, we examine the role of child verbal status (i.e., minimally verbal versus verbal). The study had three aims: 1) to examine differences in mother-child relationship quality based on child verbal status, 2) to examine differences in child maladaptive behaviors based on child verbal status, and 3) to investigate if child verbal status moderated the relationship between mother-child relationship quality and child maladaptive behaviors in ASD+ID.

**Method:** This sample was drawn from a larger longitudinal study and included mothers and their adolescents and adult children with ASD+ID ( $n = 291$ , mean child age = 25.38 years,  $SD = 10.22$ ). Verbal status was determined utilizing an item from the Autism Diagnostic Interview – Revised (Lord et al., 1994); individuals scoring a 0 (i.e., daily functional use of phrases) were classified as *verbal* and individuals scoring a 1 (i.e., no functional use of phrases but uses speech daily) or 2 (i.e., <5 words total or speech not used daily) were classified as *minimally verbal*. All mothers completed the Problem Behavior subscale of the Scales of Independent Behavior – Revised (SIB-R; Bruininks, Woodcock, Weatherman, & Hill, 1996), which measures the presence, frequency, and severity of eight types of child maladaptive behaviors: (1) hurtful to self, (2) unusual or repetitive, (3) withdrawn or inattentive, (4) destructive to property, (5) hurtful to others, (6) disruptive, (7) socially offensive, and (8) uncooperative. A standardized algorithm was also used to compute a general maladaptive behavior score. Multiple metrics were used to examine mother-child relationship quality. To measure maternal burden, mothers completed the Burden Interview (Zarit, Reever, & Bach-Paterson, 1980), which assesses subjective burden associated with caregiving demands. The Bengtson Positive Affect Index (Bengtson & Schrader, 1982) was administered to measure mother-child closeness, and is a 10-item scale that asks the mother to rate her feelings of trust, affection, understanding, fairness, and respect toward the child as well as perceived from the child. Lastly, all mothers participated in a Five Minute Speech Sample (FMSS; Magaña et al., 1986), which consists of a standardized prompt instructing the mother to describe her relationship with her child and her thoughts and feelings about him/her for five minutes without interruption. The FMSS was subsequently coded by an expert to identify the total number of maternal critical remarks and maternal positive remarks regarding the child.

**Results:** When examining group differences in relationship quality, the two groups did not differ on maternal burden ( $p = .299$ ), closeness ( $p = .908$ ), or maternal positive remarks ( $p = .096$ ). On average, mothers of minimally verbal adolescents or adults with ASD+ID produced fewer critical remarks during the FMSS compared to mothers of verbal adolescents or adults with ASD+ID ( $p = .015$ ). Regarding child maladaptive behaviors, verbal individuals with ASD+ID were more likely to display socially offensive ( $p = .008$ ) and disruptive ( $p = .025$ ) behaviors compared to those who were minimally verbal; the two groups were similar on all other behavior items as well as the general maladaptive behavior score ( $ps \geq .231$ ). When examining whether verbal status moderated the relationship between mother-child relationship quality and child maladaptive behaviors, we found evidence for moderation in negative (i.e., maternal burden [ $p = .047$ ], maternal critical remarks [ $p = .029$ ]) but not positive (i.e., closeness [ $p = .715$ ], maternal positive remarks [ $p = .320$ ]) measures of mother-child relationship quality. Specifically, the severity of child maladaptive behaviors was more strongly related to maternal burden and maternal critical remarks when the adolescent or adult with ASD+ID was verbal versus minimally verbal, suggesting a stronger association between child maladaptive behaviors and some aspects of mother-child relationship quality in the verbal group.

**Discussion:** Findings suggest that mother-child relationship quality is not negatively impacted by minimal verbal abilities in adolescents and adults with ASD+ID. Rather, more severe maladaptive behaviors in individuals with ASD+ID may have a greater

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impact on maternal burden and maternal critical remarks when the individual with ASD+ID has verbal abilities. These findings may be explained in part by the increased presence of disruptive and offensive behaviors in the verbal group with ASD+ID compared to the minimally verbal group with ASD+ID. Additional research is needed to identify similarities and differences in behavioral phenotypes in minimally verbal versus verbal adolescents and adults with ASD, as well as how parenting experiences may differ or be affected by child verbal status.

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