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## NEURODEVELOPMENTAL FAMILY LAB FAMILY RESEARCH SUMMARY

“Early gesture use in fragile X syndrome” (Rague, Caravella, Tonnsen, Klusek, & Roberts, 2018) is now published in *Journal of Intellectual Disability Research*. The article and abstract are available here: <https://onlinelibrary.wiley.com/doi/abs/10.1111/jir.12498>

**Participants:** 86 male infants enrolled in a longitudinal study of high-risk infants (PI: Jane Roberts): 39 infants with fragile X syndrome (FXS), 27 infant siblings of children with ASD (high-risk siblings), and 20 low-risk infants.

**Methods:** At the ages of 9, 12, and 24 months, participants’ mothers reported the number of gestures their infant used on the *MacArthur-Bates Communicative Development Inventory* (CDI), a parent-report questionnaire about early communication skills. We compared groups on the number of gestures they had acquired at each age as well as the rate at which they acquired gestures using multilevel modeling. We also examined the association of autism symptoms and nonverbal skills with these patterns of early gesture use.

**Results:** Infants with FXS used fewer gestures than high-risk siblings and low-risk infants, with these differences largely associated with lower nonverbal abilities in the FXS group. Furthermore, infants with more severe autism symptoms tended to use fewer gestures in the FXS and high-risk sibling groups.

**Clinical Impact and Take-Home Point:** Gesture use is an important precursor to language development and is often delayed in children with autism. Our study found that lower nonverbal abilities play an important role in understanding gesture delays in FXS as well as the relationship of gestures with later autism symptoms in this group.

THANK YOU TO THE FAMILIES INVOLVED IN OUR RESEARCH!