



Do Parent-Implemented Naturalistic Developmental Behavioral Interventions for Children with Autism Spectrum Disorder (ASD) Differentially Affect Children in Medically Underserved Areas?

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INTRODUCTION

- Parent-implemented Naturalistic Developmental Interventions (PI-NDBIs) **improve social communication skills** in children with ASD and can effectively be delivered through telehealth services
- Telehealth services can begin to address service access disparities for children with ASD in **medically underserved communities (MUA)**; areas with reduced primary care providers) because it easily and readily provides families with an expert interventionist coach
- Medically Underserved Areas are those that have too few primary care providers, high infant mortality, high poverty or a high elderly population
- This study examined whether PI-NDBIs differentially affect the language growth of children with ASD depending on MUA status

METHODS

Data Sources	Data from Children with ASD enrolled in a Randomized Controlled Trial of Project ImPACT delivered via telehealth (N=34)
Variable(s)	Language growth by treatment condition (waitlist control, self-directed parent course, or therapist-assisted telehealth delivery) was predicted by: <ul style="list-style-type: none"> • MUA status of the child's home as designated by HRSA, • Child age • Time • Interaction of treatment condition and time
Analysis	<ul style="list-style-type: none"> • Multilevel models using restricted maximum likelihood were used to predict language growth curves • Two observations were nested within each of 3 time points (baseline, post intervention, and 3-month follow up) for each child

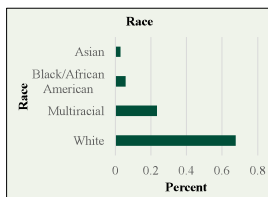
SURVEY SAMPLE DEMOGRAPHICS

N = 34

Age

Mean	Range
46.2 Months (3.9 years)	17.7-93.2 Months (1.5-7.8 years)

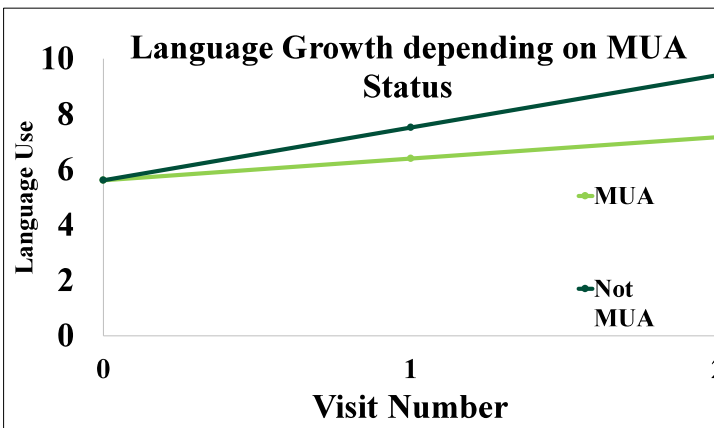
MUA Status	Percentage
MUA	55.88%
No MUA	44.12%



RESULTS

Language Growth Across Treatment Groups

TrtGrp	Mean	Std. Error	df	95% Confidence Lower Bound	Interval Upper Bound
Waitlist	6.918 ^b	1.415	28	4.018	9.817
Self-Directed	6.878 ^b	1.142	28	4.539	9.217
Coaching	7.739 ^b	1.018	28	5.654	9.824



DISCUSSION

- While differences by treatment condition were not statistically significant, **trends suggest that children in the Coaching condition had more language growth**
- Children living in **medically underserved areas (MUAs) had less language growth** than children who did not live in MUAs
- **Additional support** for children receiving these interventions in MUAs may be warranted (e.g., homework reminders, spending more time problem-solving how to reduce logistical barriers)
- **Limitations** of this study include: a small sample size of 34 children. Our current sample included only those families that completed the study and did not include families that **dropped out**. It is expected that we would see differences by treatment group in **the full sample**. Data collection is ongoing for this project.
- Other limitations include the fact that the study used **expert coaches instead of community providers** and results might be different with less highly trained coaches
- **Future studies** can use a larger sample size to get a better idea of the populations that telehealth services can benefit. Future studies should also identify the additional support families of medically underserved areas may need and ways to address these needs

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ACKNOWLEDGEMENTS

MSU Autism Lab, PI: Dr. Brooke Ingersoll, Mentor: Diondra. Straiton