# Michigan State University Autism Lab

Fall 2022 Newsletter





#### Meet The Lab:

Left to Right: Mya Howard (RISE Study Caregiver Liaison), Ana Pomales Ramos (Graduate Student), Diondra Straiton (Graduate Student), Dr. Brooke Ingersoll (PI), Julia Nauman (RISE Project Coordinator/Lab Manager), Hannah Tokish (Graduate Student), and Anthuanet Espinel (Post-Baccalaureate Research Assistant)



# About the Autism Research Lab:

The MSU Autism Research Lab, directed by Brooke Ingersoll, PhD, studies the development of social communication in young children with autism spectrum disorders (ASD) and the development of interventions to improve these skills. We are also interested in the dissemination of evidence-based interventions and the impact of ASD on the family.

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### MSU Autism Lab Shout Outs!

#### Kyle Frost's Internship Year:

Kyle is currently completing her clinical internship year, which comprises the final year of her PhD. She matched at JFK Partners at the University of Colorado School of Medicine, where she is continuing her clinical training in therapy and assessment for autistic youth and youth with intellectual and developmental disabilities. She is also receiving additional training as a LEND fellow. Congratulations Kyle!



# Jessie Greatorex wins Autism Science Foundation Grant!

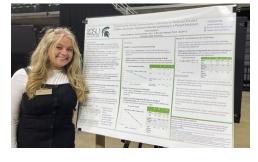
Jessie was awarded an Autism Science Foundation (ASF)'s Undergraduate Research Summer Grant to support her research this summer. Jessie is working directly with ABA agencies that contract with Medicaid to determine how clinicians can better support parents participating in parent- mediated interventions. Congratulations Jessie!



# 2022 University Undergraduate Research and Arts Forum (UURAF) Presentations:

The MSU Autism Lab had two undergraduate students presented at the 2022 University Undergraduate Research and Arts Forum (UURAF). Teresa Girard (right) presented a poster entitled "Examining Administrative and Logistical Barriers in Implementation of Telehealth ABA Therapy". Congratulations Teresa!





Jessie Greatorex (left) presented a poster entitled "Examining the Social-Communication Outcomes for Medicaid Enrolled Children with Autism Spectrum Disorder partaking in a Parent-Mediated Intervention". Congratulations Jessie!

# Naomi Alvarado Participates in the Summer Research Opportunity Program:

This summer, Naomi Alvarado (right) participated in the University of Michigan's summer research opportunity program! During the summer, she worked at Dr. Rona Carter's Adolescents and Interpersonal Relationship lab on an independent project that explored how parental relationships and pubertal timing affects adolescents' depressive symptoms. She was able to learn so much about developmental psychology and overall become more prepared for graduate school. SROP is a great way to learn about graduate school applications. She is so thankful for this opportunity, and if you would like to learn more about it feel free to email Naomi: nalv@umich.edu



# The International Society for Autism Research 2022 Conference:

The MSU Autism Lab took part in the 2022 INSAR Conference in Austin, Texas. You can read more about these wonderful abstracts and presentations at <a href="https://www.autism-">https://www.autism-</a> <u>insar.org/page/INSAR2022Archives</u>. Below are pictures of our presenting researchers and the posters they presented, as well as who you should contact if you would like more information about a project or presentation.

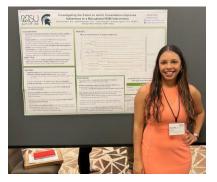
#### Posters Presentations:

Abstract: 405.096 Examining the Role of Attention Problems in Motor Stereotypy in ASD

MSU Researchers: Julia Nauman, BS (pictured right) & Brooke

Ingersoll, PhD

Presentation Type: Poster Contact: Naumani@msu.edu



Abstract: 402.023 Investigating the Extent to Which Consultation Improves Community Providers' Adherence to a Manualized Social **Communication Intervention** 

MSU Researchers: Diondra Straiton, MA (pictured left), Brooke

Ingersoll, PhD, & Jessie Greatorex

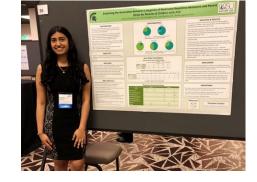
Presentation Type: Poster

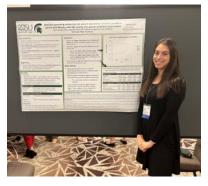
Contact for more information: <u>straiton@msu.edu</u>

Abstract: 405.095 Examining the Association between Categories of Restricted Repetitive Behaviors and Parent Stress for Parents of Children with ASD

MSU Researchers: Sanchia Fernandes, BA (pictured right), Ellie Harrington, PhD, Julia Nauman, BS, & Brooke Ingersoll, PhD

Presentation Type: Poster Contact: ferna325@msu.edu





Abstract: 411.138 Baseline Parenting Stress but Not Parent Depression Predicts Growth in Parent Self-Efficacy over the Course of a Parent-Mediated Intervention

MSU Researchers: Mya Howard, BS (pictured left) Kyle Frost, MA, &

Brooke Ingersoll, PhD Presentation Type: Poster Contact: <u>howardmy@msu.edu</u>

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# The International Society for Autism Research 2022 Conference:

#### Oral, Panel, and Other Presentations:

Abstract: 220.004 Implementation of Telehealth Services to Deliver Applied Behavior Analysis MSU Researchers: Ana Pomales-Ramos, MA (pictured left) & Brooke Ingersoll, PhD (pictured center). Also pictured is Kaylin Russell, MA an MSU alumna who was also on the panel

Presentation Type: Panel Contact: <a href="mailto:pomalesr@msu.edu">pomalesr@msu.edu</a>





Abstract: 301.002 Stakeholder Perspectives on Family 'Fit' for a Parent-Implemented Naturalistic Developmental Behavioral Intervention

MSU Researchers: **Kyle Frost, MA** (pictured left), Danielle Duggan, Delaney Weedmark, & Brooke

Ingersoll, PhD

Presentation Type: Oral Contact: <a href="mailto:frostky1@msu.edu">frostky1@msu.edu</a>

Abstract: 421.202 A New Remote Technology Package
Demonstration: Bringing the Lab to Families' Homes

MSU Researchers: Mya Howard, BS (pictured right), & Brooke

Ingersoll, PhD

Presentation Type: Tech Demonstration

Contact: <a href="mailto:howardmy@msu.edu">howardmy@msu.edu</a>



# Special Interest Group (SIG): Advancing Anti-Racist Research and Clinical Practice in the Autism Field

One of our graduate students, **Diondra Straiton, MA** (pictured left) Co-Lead a SIG at INSAR on anti-racist research with Aksheya Sridhar (pictured right). Congratulations Diondra! You can find anti-racism resources for autism clinicians here: <a href="https://autismlab.psy.msu.edu/resources/anti-racism-resources/">https://autismlab.psy.msu.edu/resources/anti-racism-resources/</a>



## **New Lab Members:**

Anthuanet Espinel, B.S., is a Research Assistant at MSU's Autism Lab. She received her B.S. from the University of Texas at Dallas in Psychology and Child Learning and Development with a minor in Spanish. As an undergraduate, Anthuanet worked and completed an honors thesis in the Think Lab. Her research interests include parent-child relationships and early interventions for children with autism. She enjoys traveling and being with friends in her free time. In the future, she hopes to pursue a PhD in Clinical Psychology.



Hannah Tokish, B.A., is a doctoral candidate in MSU's Clinical Science program. Prior to joining the MSU Autism Lab, she completed her BA in Psychology at Cornell University and spent two years as a Donald J. Cohen Fellow in Developmental Social Neuroscience at the Marcus Autism Center. Hannah is interested in the design and implementation of accessible early interventions for children with ASD as well as the impact of caregiver coaching techniques on child development, parental well-being, and provider self-efficacy. When she's not in the lab, Hannah loves to hike, take fun dance classes, and play the ukulele.



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# The Importance of Early Intervention

#### Written by Undergraduate Research Assistant Ashley Hrdlicka

My name is Ashley Hrdlicka, and I am a junior studying psychology who just recently joined the MSU Autism Lab Team as an Undergraduate Research Assistant. I was granted the opportunity to become part of the team and work on the RISE Study under Brooke Ingersoll, MSU's Autism Research Lab Director, and Ana Pomales Ramos, one of our lab's graduate students. Since becoming a part of the lab back in early March, I have come to understand how important early intervention (EI) programs are for individuals diagnosed with Autism Spectrum Disorder (ASD) or those illustrating ASD symptoms at a young age. Currently I work on the RISE (Reciprocal Imitation and Social Engagement) study. Publicly funded with no cost to families, the RISE project is a multisite study that investigates the effectiveness of Reciprocal Imitation Training (RIT), an easy to learn, play-based, Naturalistic Developmental Behavior Intervention (NDBI) that offers services to individuals up to the age of three. The RISE project trains early



intervention providers across four states to use this parent-implemented intervention to improve family outcomes.

Allow me to preface with a brief history of early intervention. The national Part C Early Intervention Program (EIP), established in 1986 under the Individuals with Disabilities Education Act (IDEA), was put into action as prevalence among young individuals affected by ASD began to climb. The primary purpose of the program is to "implement statewide, comprehensive, coordinated, multi-disciplinary interagency service delivery systems to provide early intervention services for infants and toddlers with disabilities and their families" (Koegel et al., 2014). This program set the tone for a new generation of targeting and treating ASD and other disabilities. In 2014, participating states dispensed early intervention services to 350,581 or 3% of infants and toddlers diagnosed with a disability. The Part C EIP has advanced in detection services with New York reporting 639 cases of autism in toddlers in the 1999-2000 program that increased to 7986 in the 2014-2015 program year (Koegel et al., 2014). Prior to the implementation of services such as Part C EIP, ASD was widely misinterpreted and misunderstood, leaving thousands of individuals illustrating ASD symptoms to be institutionalized and rarely diagnosed. The importance of early intervention is layered with societal concepts that commonly lead to a series of risk factors for symptomatic individuals and their families. Early intervention addresses primary outcomes, prevention of secondary outcomes, fiscal burdens, and parent stress. It improves long-term outcomes of both the child and the parent.

It is empirically understood that ASD is not always a life-long disabling condition. With intervention at the appropriate time, many children can participate in the 'regular' classroom setting, with 25% of children exceeding to lose the diagnosis all together. Since 1987, numbers of diagnosed children that remained non-verbal decreased from ~50% to fewer than 10% today. Those who are non-verbal have better chances of disregarding the symptom when they begin intervention younger than the age of five (Koegel et al., 2014). Primary outcomes are more than typically accompanied by secondary outcomes, such as communicative symptoms of aggression and tantrums and co-morbid symptoms of depression and anxiety. These symptoms can be avoided, reduced, or eliminated through early intervention centered around socialization, reducing expenses on later interventions throughout the persistence of ASD.

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As ASD progresses through the lifespan to become more abundant and severe, treatment and program costs add up and start creating a financial burden for parents. In a cost-benefit model for early intensive behavioral intervention for children who received three years of early intervention between the age of two and the age of school entry, there was an estimated cost savings of \$187,000-\$203,000 per individual aged 3-22 years and \$656,000 - \$1,082,000 per individual aged 3-55 years (Koegel et al., 2014). With early intervention pressing the matter of family involvement, dual partnership between the parent and the service provider can also lessen fiscal costs and parental stress. The thought of not being able to afford essential services for their child can put parents into distress. This stress runs universally parallel between the parent and the child. Misleading diagnoses or strenuous treatment plans can leave a parent feeling lost in their child's disability. Many parents who already deal with health problems such as anxiety, can fall into a deeper hole of concerns such as depression. Giving parents access to the tools to address symptoms and treat atypical behaviors can increase their mental and physical health by empowering them to be an effective parent and therefore benefiting the well-being of both parties.

I have come to learn that early intervention could be the modern key to providing a flourishing lifestyle to those affected by ASD. The RISE study takes great honor in following the path of early intervention, with the goal to increase developmental skills and decrease the load of pressure put on the caretakers. It is a family-mediated strategy, ensuring that parents will be meaningfully involved the whole way while clinicians lead in guiding them through the process. The team I have been working with—Dr. Ingersoll, Julia Nauman, Mya Howard, Sanchia Fernandes, Ana Pomales Ramos, and my fellow RAs— are the faces you see making a change in research. They are the ones working first-hand with participants, utilizing a study that is so creatively and uniquely interactive. They have been nothing except welcoming, encouraging me to push further in my career and involvement in the lab. Journal Club was something I was introduced to when I first joined the lab. Twice a month, we meet to discuss a topic of an article a team member has selected that they found intriguing. These topics could range from prevalence of ASD in young adults to the obstacles individuals diagnosed with ASD have to face when attempting to put down a mortgage on a house or seek employment. It has been a pleasure sharing opinions and learning new perspectives on topics that aren't typically publicly discussed.

One of my main roles in the lab has involved delivering assessment kits to participant's homes. These kits contain the materials needed for their participation in the RISE Study. Once their assessments are over, I retrieve the kits from participant's homes to clean and prepare them for the next family. We work with families located throughout Michigan, notably Lansing and Kalamazoo, and we treat these families with the utmost respect and confidentiality they deserve. This project has also given me the opportunity to learn new skills, most recently video-based behavior coding and scoring. Being exposed to research has only heightened my interest in the field. Up until my college career, I believed that pursuing psychology meant that you could only become a therapist, a psychiatrist, or a school guidance counselor. The more that I strive to learn about the subject and the more experience I gain, I have come to the realization that the possibilities are endless when it comes to working with the mind. Research is the behind the scenes of what you typically consider psychology. Without research, treatments would lose validity and reliability. I will continue to further my involvement in research with hopes to unveil findings that can change stigmas and policies around the disabled in the way we treat them systematically and the way we treat them as community members.

#### References

Koegel, L. K., Koegel, R. L., Ashbaugh, K., & Bradshaw, J. (n.d.). The importance of early identification and intervention for children with or at risk for autism spectrum disorders. International Journal of Speech-Language Pathology. Retrieved August 26, 2022, from https://www.tandfonline.com/doi/full/10.3109/17549507.2013.861511?scroll=top&needAccess=true

# **Research Updates:**

Reciprocal Imitation and Social Engagement (RISE) Study:



Michigan State University's Autism Research Lab is participating organizations in a multi-site clinical trial examining effective early intervention methods for toddlers with or at-risk for Autism Spectrum Disorder (ASD). This multi-site study investigates the effectiveness of Reciprocal Imitation Training (RIT) in publicly funded early intervention programs in four states. The project will provide information on the effectiveness of parent-mediated RIT when delivered in community settings and may find moderators of outcomes and other factors that influence the quality of intervention. Participation in RISE is only available to families with an Early Intervention (EI) provider that is already enrolled in the study. If applicable, your EI provider will discuss your potential participation and connect you with a local research site. Participation lasts about 9 months from the first assessment to the third and final assessment. Visit our website at <a href="riseresearchnetwork.com">riseresearchnetwork.com</a> for more information and go to <a href="riseresearchnetwork.com">riseresearchnetwork.com</a> (Contact to learn more about the RISE study at our other research sites.

If you would like more information on the RISE Study within the state of Michigan, please contact the following individuals:

- General Information on RISE in Michigan: Contact Julia Nauman at <u>naumanj@msu.edu</u>
- Michigan EI Providers: Contact Sanchia Fernandes at ferna325@msu.edu
- Michigan Families and Parents: Contact Mya Howard at <a href="howardmy@msu.edu">howardmy@msu.edu</a> or call (313)-437-3099

The RISE Project involves researchers from around the country. The MSU Autism Lab collaborates with researchers from the University of Washington, Rush University Medical Center, the University of Massachusetts Boston, and Boston University.



### **Recent Publications:**

D'Agostino, S.R., Dueñas, A.D., Bravo, A., Tyson, K., **Straiton, D.**, Salvatore, G.L., Pacia, C., Pellecchia, M. (accepted). Short report: Toward deeper understanding and wide-scale implementation of naturalistic developmental behavioral interventions. *Autism*.

Edmunds, S. R., **Frost, K. M.**, Sheldrick, R. C., Bravo, A., **Straiton, D.**, Pickard, K., Grim, V., Drahota, A., Kuhn, J., Azad, G., **Pomales Ramos, A.**, **Ingersoll, B.**, Wainer, A., Ibanez, L. V., Stone, W. L., Carter, A., & Broder-Fingert, S. (2022). A method for defining the CORE of a psychosocial intervention to guide adaptation in practice: Reciprocal imitation teaching as a case example. *Autism*, *26*(*3*), 601–614. <a href="https://doi.org/10.1177/13623613211064431">https://doi.org/10.1177/13623613211064431</a>

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