UNC | SCHOOL OF MEDICINE

# SPHS Research Day 2025

April 28, 2025 in MBRB 2204
12:15 - 5:00pm

# Agenda

12:15 - 12:45pm: Set-up for Posters & Presentations
*MBRB Main Floor Lobby & 2nd Floor Lobby*

12:45 - 1:00pm: Welcome & Introductions
*MBRB 2204*

1:00 - 2:30pm: PhD Oral Presentations
*MBRB 2204*

2:30 - 2:45pm: Break & Refreshments
*MBRB Main Floor Lobby & Patio*

2:45 - 3:30pm: Poster Session A
*MBRB Main Floor Lobby & 2nd Floor Lobby*

3:30 - 4:15pm: Poster Session B
*MBRB Main Floor Lobby & 2nd Floor Lobby*

4:20 - 4:45pm: Featured Student Presentation
*MBRB 2204*

4:45 - 5:00pm: Viewer’s Choice Award & Wrap-up
*MBRB 2204*

# PhD Oral Presentations

## Lillian Woolf

*Child Opportunity and Rurality: Impacts on Autism Diagnosis and Service Engagement in Young Autistic Children*

UNC Faculty Mentor:
Dr. Jessica Steinbrenner

## Mags McAllister

*Behavioral Coding of Verbal Repetition in School-Age Autistic and Non-Autistic children: A Pilot Study*

UNC Faculty Mentor:
Dr. Clare Harrop

## Suzanne Feinstein

*Beyond the SGD: Sisters Co-constructing Meaning with Unaided AAC*

UNC Faculty Mentor:
Dr. Karen Erickson

## Aishah Almathkour

*Measuring Caregiver Communication: The Development and Preliminary Testing of the Caregiver Communication Evaluation Tool*

UNC Faculty Mentor:
Dr. Jessica Steinbrenner

# Poster Presentations

Poster Session A: (2:45 - 3:30pm) Odd numbers
Poster Session B: (3:30 - 4:15pm) Even numbers

1. **Meeting the Hearing Care Needs of Children with Complex Disabilities: Perspectives from Educational**
   Sophia Blessing, Carnes Mathis, Zakiya Morris, Sierra Williams, Hannah Siburt, Nancy Quick, & Hannah Hodson McLean

School-age children with complex support needs receive special education services under the eligibility categories of intellectual disability, autism, and multiple disabilities. Educational audiology services play a critical role in supporting school-age children with hearing loss and complex support needs by assessing hearing abilities, providing appropriate amplification devices, and offering auditory training. Educational audiologists work closely with teachers, parents, and other educational staff to ensure that children's auditory needs are met, promoting better communication, learning, and overall academic success. By providing early intervention and tailored audiological support, educational audiologists can significantly improve outcomes for children with hearing-related challenges, helping them to reach their full potential in the classroom. This project aims to identify and describe the challenges faced by educational audiologists and related professionals in providing hearing care to students with complex care needs. Led by four LEND trainees enrolled in the Doctor of Audiology program at UNC Chapel Hill, with guidance from UNC faculty, the project gathered input from 34 participants, including educational audiologists, autism spectrum disorder consultants, and educators. These professionals participated in two group interview sessions. The interview transcripts underwent content analysis to identify themes and sub-themes. The coding process was cross-checked for accuracy with discrepancies being resolved through group discussion. The resulting data was organized into categories and meaning units to allow for analysis and discussion. Despite having disproportionally higher rates of hearing loss, children with complex needs are less likely to receive best practice audiologic care. This project provides key information regarding challenges to audiologic care in the educational setting and suggestions for improved service provision.

2. **Overall Wellbeing in Children and Adolescents Who Stutter: Comparing Direct and Indirect Treatments**
   Jaelin Houston, Allyse Longrie, & Skylar Scearce

There are a variety of treatments used for children and adolescents who stutter which can be categorized as either direct or indirect treatment approaches. Direct treatment approaches focus on fluency shaping strategies for speech production while indirect

approaches focus on environmental and psychological factors (Laiho et al., 2022). This literature review examines how direct vs. indirect stuttering treatments compare in outcomes related to well-being (e.g. listener and self-perception, attitudes towards communication, and stuttering-related anxiety) in children and adolescents aged 6-17 years old. Although there is more research focused on direct stuttering intervention approaches, findings support the notion that both direct and indirect treatment approaches are associated with improvements in well-being. However, several limitations exist within the research of both approaches that limit generalizability of results to the general population.

3. **Comparing the Effectiveness of Telepractice and In-Person Speech Language Pathology Interventions for Individuals with Dementia**
   Lien Lancaster, Racheal Bryson, & Kelly Yang

As the number of individuals with dementia continues to rise, so does the demand for cognitive rehabilitation services. Dementia is characterized by progressive cognitive decline, commonly affecting memory, attention, executive functioning, language, and communication abilities. The COVID-19 pandemic accelerated the adoption of telehealth across healthcare professions, including speech-language pathology (SLP), highlighting both its potential and the need for continued evaluation (Edgar & Bargmann, 2021). Telepractice offers a promising mode of service delivery for this population, particularly for individuals who would benefit from the increased convenience and accessibility (e.g., transportation, scheduling, and cost) of receiving intervention from the comfort of their own homes. While the studies reviewed suggest that telepractice therapy could be as effective as traditional in-person therapy and holds promise, these findings must be considered with caution, as telepractice and some of the accompanying tools are still emerging in the field of SLP. Furthermore, limited research and a lack of robust evidence make it challenging for speech-language pathologists to stay current on which intervention modalities are evidence-based and effective. As telepractice continues to grow within medical and rehabilitative fields, it is essential to assess the efficacy of virtual SLP services for this population (Dial et al., 2019).

4. **Development of word-level speech intelligibility tests for Arabic, Japanese, and Korean**
   Soomin Kim, Eri Kakoki, Mariam Alhadad, & Katarina L. Haley

Some speech-language pathologists (SLPs) face challenges when evaluating clients who speak languages in which the clinicians lack proficiency. The Chapel Hill Multilingual Intelligibility Test (CHMIT) addresses this issue through word repetition tasks available for 14 languages. By employing software, CHMIT enables clinicians to assess speech intelligibility by collaborating with language-proficient partners. Each language version consists of 600 words divided into 50 sets of 12 minimally or almost minimally paired words, selected based on language-specific phonological and lexical characteristics. During testing, clients hear and see one randomly selected word from each set, then repeat it. Their responses are recorded and later transcribed by a

language-proficient untrained rater. The software calculates the percentage of words perceived correctly by comparing the transcription to target orthography. For Arabic, Japanese, and Korean versions, native speakers pursuing graduate studies in speech-language pathology developed CHMIT in each language considering word frequency and maximizing phonemic similarity. Each language presents unique writing system challenges for software implementation. Arabic uses an abjad system with 28 letters written right-to-left; Japanese employs Kanji and Hiragana, necessitating dual typing methods; Korean Hangul uses syllable blocks requiring automatic construction of letters during typing. Software is currently available for English and in preparation for expansion to the other languages. Once the software upgrades for the various language versions are completed, CHMIT will be distributed for free. CHMIT will support SLPs internationally and enable clinicians who lack proficiency in their clients' preferred language to conduct accurate assessments.

5. **Bilingual vs Monolingual Perspectives: An Exploration of the Social-Emotional Effects on Bilingual Families of Children with Autism**
   Catherine Allen & Ciara Ryan

According to the U.S. Census Bureau, nearly 1 in 5 individuals in the United States spoke a language other than English at home in 2019. Despite this shift toward linguistic diversity and a growing body of evidence supporting bilingual language exposure for children with autism spectrum disorder (ASD), many families continue to receive monolingual-supportive guidance from healthcare professionals (Yu, 2016). In the U.S., this often means being advised to speak only English at home, regardless of the family's native language or comfort level. Such recommendations can place significant emotional and communicative strain on families with limited English proficiency, leading to reduced parent-child engagement, weaker emotional attunement, and disrupted cultural identity. In contrast, bilingualism-supportive recommendations have been associated with stronger family cohesion and social-emotional outcomes. Research indicates that bilingual exposure does not hinder language or social development in children with ASD and may even offer advantages in executive functioning and social communication (Ratto et al., 2020; Siyambalapitiya et al., 2022; Zhou et al., 2017). This literature review aims to assess where current research stands on the impacts of bilingual-supportive intervention on child and family social-emotional outcomes. The findings suggest that affirming bilingualism in clinical practice is not only developmentally appropriate, but essential for providing culturally responsive, family-centered care. Though promising, the limited number of studies on the efficacy of specific intervention approaches reflect a need for further research on multilingual children and families who are impacted by ASD.

6. **Auditory Processing and ADHD: Does Treatment Make a Difference?**
   Jazmin Hernandez, Kendall Garland, Jacky Menelas, & Bastien Shanley

Children with Attention-Deficit/Hyperactivity Disorder (ADHD) often present with comorbid Auditory Processing Disorder (APD), which can exacerbate difficulties in daily communication, listening, and overall functional abilities (Gascon et al 1986; Burd and

Fisher 1986). These conditions may affect a child's ability to follow directions, engage in conversations, and process verbal information in noisy environments. While ADHD treatments such as stimulant medications are well-documented to improve attention and hyperactivity, their influence on auditory processing abilities remains unclear. This literature review investigates whether treatment for ADHD leads to improvements in auditory processing skills in children diagnosed with both ADHD and APD compared to children with the same diagnoses who do not receive ADHD-specific treatment.

7. **Sleep Quality in School-Aged Children with Hearing Loss**
   Julianna Winfree & Julia Drouin

Many children throughout the United States are diagnosed with hearing loss every year. Children with hearing loss (CHL) are more prone to listening-related fatigue than their normal hearing (CNH) peers, which may have cascading effects on sleep. Sleep is integral for promoting development, especially in school-aged children. This study aims to characterize sleep outcomes in school-aged children with hearing loss aged 6-12 years. Children and caregivers completed a host of fatigue and sleep measures, including the Pittsburgh Sleep Quality Index (PSQI), as a measure of sleep quantity and sleep quality. Each participant received a PSQI global score between 0 and 21 and a global PSQI score above 5 is indicative of poor sleep quality. Participants also received a sub-score between 0 (no difficulty) and 3 (severe difficulty) for 7 different components of sleep quality. The components evaluated included subjective sleep quality, sleep latency, sleep duration, sleep disturbance, sleep efficiency, use of sleep medication, and daytime dysfunction. Preliminary results suggest that CHL scored higher in sleep latency, use of sleep medication, and daytime dysfunction, suggesting that they may experience more difficulty in these areas compared to CNH. CNH scored higher for the sleep disturbances component.

8. **Impact of Cochlear Implantation Age on Receptive Language Outcomes in Pediatrics: A Literature Review**
   Nicole Ballestas, Hannah Campany, Aesya Jones, & Maya Kugel

Early exposure to all speech sounds is imperative for the development of language milestones and suggestive of typical speech outcomes. Cochlear implant candidacy has changed with evolving research, thus decreasing the approved age of implantation for the pediatric population with varied degrees of hearing loss (Culbertson et al., 2022). Evidence from current literature supports the importance of early cochlear implantation to augment receptive language outcomes for children with hearing loss when compared to their normal hearing peers (Nicholas & Geers, 2007; Geers & Sedey, 2011). The purpose of this project was to investigate how the age of cochlear implantation impacts language outcomes in pediatric cochlear implant candidates to further support the need for early implantation and synthesize evidence that research studies have concluded on this topic. This literature review was conducted via an extensive search through the PubMed database, resulting in 10 (critically appraised) studies utilized for this review. Findings from this literature review further support that earlier cochlear implantation contributes to enhanced language outcomes.

9. **Discourse measure reveals potential underdiagnosis of aphasia in women**
   Soomin Kim, Katarina L Haley, Connor Daughtridge, Mark Hirsch, Adam Jacks, Lorelei P Johnson, & Marcia Rodriguez

Some stroke survivors struggle with language despite scoring within normal range on standardized aphasia batteries—a condition called latent aphasia. Identifying latent aphasia is crucial to ensure access to services and minimize negative psychological consequences. Aphasia research has historically oversampled men, and little is known about gender effects. This study aimed to explore potential gender differences in how aphasia is detected after a left-hemisphere stroke. The Quick Aphasia Battery (QAB) was administered to estimate the aphasia severity of 239 left-hemisphere stroke survivors (133 female) and 134 neurotypical controls (NTC; 80 female). We formed three groups: a) stroke survivors with aphasia per the QAB (APH), b) stroke survivors scoring above the QAB cutoff for aphasia (NABQ), and c) NTC. The NABQ group included those at risk for latent aphasia. The dependent variable was word information measure (WIM), a discourse measure that is sensitive to mild aphasia. Females in the NABQ group showed significantly lower (more impaired) WIM scores than males in the NABQ group ($p=0.02$). Female NABQ scores were also lower than female scores for the NTC and not clearly different from female APH scores. In contrast, male NABQ scores were similar to male NTC scores and higher than male APH scores. The results suggests that women may be more likely than men to have undiagnosed aphasia. This may be linked to the use of strategies to maintain fluency at the expense of precise language. Further research is required to explore aphasia-related gender differences.

10. **Impact of Speech Sound Disorders on the Social and Emotional Well Being in School-Age Children**
    Claire Griffin, Lauren Ellsworth, & Caroline Haynes

Speech sound disorders (SSDs) affect 2.3% to 24.6% of school-aged children and may have widespread effects (Black et al., 2015; Law et al., 2000). Research suggests that speech and language disorders may negatively impact academic, psychological, and social domains (Feeney et al., 2012; Lindsay et al., 2007; McCormack et al., 2011; St. Clair et al., 2011). The goal of this literature review was to determine the impact of childhood speech sound disorders on social and emotional wellbeing, measured by outcomes including decreased social participation, reduced self-esteem, and an increased risk of maladaptive behaviors such as substance abuse and self-harm. Children with speech sound disorders are more likely to be bullied than their typically speaking peers; bullying victimization is known to lead to a wide range of negative social, emotional, and behavioral outcomes such as increased rates of depression and anxiety (Sweeting & West, 2001; Armitage 2021). This indicates the critical need to address social emotional health and wellbeing in children with SSDs. Understanding these relationships between SSDs and negative social-emotional consequences is necessary so that speech language pathologists (SLPs) can feel prepared to holistically treat children with SSDs and justify the need for speech services to relevant stakeholders. Our synthesis of study findings indicated that children with SSDs are

more likely than their typically developing peers to experience negative social and emotional impacts such as social isolation, mental health challenges, and reduced self-confidence.

**11. Child Opportunity and Rurality: Impacts on Autism Diagnosis and Service Engagement in Young Autistic Children**

Lillian Woolf, Jessica Steinbrenner, & Sallie Nowell

Despite growing awareness of the importance of early autism diagnosis, significant disparities persist, particularly for children in rural and under-resourced communities (Zuckerman et al., 2015; Baio et al., 2018). This study examines how community-level opportunity and rurality relate to age of diagnosis and engagement in early intervention services among young autistic children. Using data from a large multi-site study, we analyzed a sample of 250 children ages 12–60 months across North Carolina, Kansas, and Missouri, integrating Child Opportunity Index (COI) scores and rural-urban classifications. Geocoded participant addresses were linked to COI domains, Education, Social and Economic, and Health and Environment (Acevedo-Garcia et al., 2014), and to urbanicity levels using the NCHS Urban-Rural Classification Scheme. Regression analyses examined how these community factors predicted age at autism diagnosis and service use across therapies, including speech-language pathology (SLP), occupational therapy (OT), physical therapy (PT), and applied behavior analysis (ABA). Preliminary findings suggest that lower community-level opportunity, particularly in Social and Economic and Health and Environment domains, is associated with reduced engagement in services like SLP, PT, and ABA. However, no community-level factors significantly predicted age of diagnosis, and urbanicity alone was not significant in any model. These results highlight the role of structural opportunity in shaping access to early intervention services. Findings support the need for targeted, place-based strategies to address inequities in autism care.

**12. Evaluating Speech-Language Pathology Interventions to Improve Swallowing Safety in Dementia-Related Dysphagia**

Taylor McHugh, Taylor Moseley, Emiley Nance, & Kristen Roach

For late-stage dementia patients with dysphagia, interventions such as diet modifications and non-dietary compensatory strategies are commonly implemented to improve swallowing safety and reduce the risk of aspiration. The ability to safely engage in oral intake is a significant concern in this population, as cognitive decline and functional impairments further complicate dysphagia management. This review explored whether texture-modified diets and/or non-dietary compensatory strategies effectively minimize the risk of aspiration and enhance swallowing function while also considering the interventions' impact on quality of life in patients with dementia. By addressing the complex needs of individuals with late-stage dementia, this review aimed to bring greater awareness to the challenges of balancing medical safety with comfort and dignity at the end of life.

**13. Assessing the Clinical Utility of Auditory Steady State Response and Auditory Brainstem Response**

Kip Crozier, Bridget Gorman, Bethany Rose, & Alexandria Swaine

While auditory brainstem response (ABR) testing is a highly useful objective measure utilized to assess hearing in infants and difficult-to-test populations, it is limited by clinician judgement, lack of frequency specificity, and stimulus intensity (Firszt et al., 2004; Scherf et al., 2006). An alternative measure, auditory steady state response (ASSR), has not historically been used in clinical practice but may have great clinical utility. The purpose of this literature review was to assess whether ASSR demonstrates similar reliability to ABR for newborns and infants. We assessed the existing literature regarding uses of ABR and ASSR to estimate hearing thresholds. Our database search resulted in 5900 articles that were narrowed to 10 articles for appraisal. Each article was appraised, and findings were synthesized independently by at least two reviewers. Our synthesis of study findings revealed a strong correlation between the two objective measures. This literature review demonstrates the clinical utility of ASSR as an additional measure of hearing sensitivity because it is not limited by clinician judgment, lack of frequency specificity, or stimulus intensity. The primary limitation of ASSR is its inability to diagnose auditory neuropathy spectrum disorder (ANSD). Although ASSR may not replace ABR, it could be used more frequently in the clinical space as a diagnostic tool once ANSD has been ruled out.

**14. Fatigue in Individuals with Hearing Loss: A Critical Review**

Anne Estelle Strawn, Sarah Bayer, & Julia Drouin

Fatigue is a frequently reported yet understudied consequence of hearing loss. This critical review evaluates the current literature on the factors that moderate fatigue in individuals with hearing loss. A comprehensive database search resulted in 2,363 articles, which were refined to 22 through screening and appraisal using JBI critical appraisal criteria. We appraised studies examining fatigue across children, adolescents, and adults with varying degrees and types of hearing loss and hearing technology (hearing aids, cochlear implants). Preliminary findings demonstrate that individuals with hearing loss experience elevated levels of fatigue, particularly in cognitively and acoustically demanding environments. Both subjective and objective assessments revealed that listening-related fatigue is a common experience, although it varies in severity depending on factors like hearing status, hearing technology, and environmental challenges. While there are reported benefits of hearing technology, in isolation, hearing technology alone does not fully alleviate the cognitive load associated with listening-related fatigue. This underscores the need for validated population-specific tools like the Vanderbilt Fatigue Scales for adults (VFS-A) and children (VFS-C). The literature reveals that listening-related fatigue is a complex and impactful outcome of hearing loss that deserves more attention in both research and intervention efforts.

**15. Taiwanese Mandarin and American English Clear Speech Production and Perception**

Halden Levin & Jennifer Smith

I report on a cross-linguistic study investigating how differences in phonological structures influence clear speech productions in Taiwanese Mandarin and American English, exploring whether speakers of these languages modify their speech in similar or different ways, and on the indirect correlation of those acoustic realizations with the clear speech benefit, intelligibility enhancement, in Mandarin. This systematic comparison may further our understanding of clear speech as produced in languages with substantial phonological differences and as produced and perceived in a language characterized by lexical tone. The results of this study revealed Mandarin clear speech elicited by a clear speech prompt with a non-native listener target population generally affords the clear speech benefit and that speakers exhibiting greater increases in tone duration and vowel space dispersion tend to be more "successful." Additionally, cross-linguistic similarities in clear speech production strategies were evidenced. In both Mandarin and English, speakers tended to expand their vowel spaces (although Mandarin speakers generally exhibited less expansion); increase rime duration; and increase absolute segmental F0 mean. Globally, increases in pitch range were cross-linguistically evidenced, particularly amongst males. Primarily evidenced is the tendency for speakers to attempt to make salient phonological contrasts more prominent while also engaging in global clear speech modifications. Notably, the potential for vowel space expansion to be vowel inventory size dependent is also brought to the forefront.

**16. A Literature Review Of the Effects of Oral Motor Intervention on Preterm Infants**

Cassidy Gilliam, Collin Thompson, Lija Jones & Tanner Perschau

While the incidence of premature births (i.e., gestational age <37 weeks) has increased, medical advances have improved the survival rate of these infants. A primary reason for delayed discharge from the NICU is a lack of independent oral feeding. Oral feeding outcomes influence not only the child's growth and development but also their family's overall quality of life. The goal of this literature review is to identify the impact of oral motor intervention on feeding outcomes and potential adverse effects in preterm infants.

**17. Sleep proximity on speech learning outcomes for degraded speech**

Sarah Bayer & Julia Drouin

Sleep-mediated memory consolidation has been suggested to play a role in promoting learning and generalization of acoustically degraded speech (e.g., noise-vocoded speech). Previous research has found that in normal hearing listeners, training in the evening hours resulted in heightened speech recognition performance relative to listeners trained in the morning, suggesting a role of sleep in stabilizing speech learning. This work suggests that the time of day may differentially promote learning outcomes. Critically, it is currently unknown whether time of day or the proximity of training to sleep plays a greater role in learning outcomes. The current study explicitly investigated how training in proximity to a period of sleep influences learning outcomes for degraded speech. We hypothesized that if sleep-mediated consolidation is a driving factor in stabilizing perceptual learning of speech, participants who undergo speech training just

before an interval of sleep will show improved speech recognition performance relative to training completed after a period of sleep. This research has implications for improving rehabilitation recommendations in individuals with hearing loss adapting to hearing assistive devices.

**18. Exploring Caregiver Barrier Perception for Accessing Hearing Technology in the United States**

Alana Epstein, Courtney Greene, & Grace Rowland

Current JCIH guidelines describe a standard of care for the early management of hearing loss in infants and young children. Timely access to care after a failed newborn hearing screening is paramount to limit the effects of undermanaged early hearing loss on children's language, developmental, and educational outcomes. Families can face significant barriers in timely access to care. Identifying these barriers is crucial for improving the accessibility of audiology for families of children with hearing loss, and research is currently limited in these areas. Drawing from research studies, this project aims to identify barriers families experience when accessing hearing technology. This project is led by three LEND trainees in the Doctor of Audiology program at UNC Chapel Hill, with mentoring provided by UNC faculty. Our goal is that this analysis will inform families and providers about the barriers to audiological care to improve access to hearing technology. This information could allow providers to better assist caregivers when seeking resources and identify areas lacking systemic healthcare support to promote quality audiological care for children with hearing loss in the United States.

**19. Sex and Autism Diagnosis Moderate the Relationship between Anxiety and Repetitive Behaviors in School-Age Children**

Margaret McAllister, Julia Parrish-Morris, John Strang, & Clare Harrop

Restricted and Repetitive Behaviors (RRBs) are a core feature of autism. They have also been found to consistently associate with anxiety in both autistic and non-autistic children (Keating et al., 2023; Sellick et al., 2021). Despite sex differences in both RRBs (Knutsen et al., 2019) and anxiety (Horwitz et al., 2023), the majority of prior research characterizing the relationship between RRBs and anxiety has been conducted with primarily male samples. It has been theorized that RRBs serve as an early manifestation of anxiety, but the moderating role of sex has not been sufficiently explored (Bird et al., 2024). (1) evaluate sex differences in anxiety and RRBs cross-sectionally in autistic and non-autistic children, and (2) assess the moderating role of sex and autism diagnosis in the relationship between anxiety and RRBs. Data were collected for 105 autistic (ASD) and 104 non-autistic (NA) children aged 4-8 years (M=6.5, SD=1.5) enrolled in an accelerated longitudinal design observational study (estimated N by Spring 2025 = 280). Replicating prior research, we found that RRBs are more prominent in autistic males than autistic females. Moderation analyses indicate that the association between anxiety and RRBs is moderated by both sex and diagnosis, such that autistic males with high anxiety also have more RRBs than autistic females with equivalent levels of anxiety. Taken together, these results indicate that RRBs may not serve the same function in autistic females, or that anxiety may manifest

less through observable behaviors such as RRBs, potentially indicative of camouflaging in autistic females.

# Poster Viewer's Choice Award


## Please scan the QR code to place your vote for this year's Viewer's Choice Award!

https://forms.gle/RZQc9fDWdweKNYH28

You may only vote one time. You are encouraged to visit all posters. The winner of Viewer's Choice will be announced at the end of Research Day.

# Featured Student Presentation

## Andrea Etkie

*"I still have trouble with this": The Views of People with Rett Syndrome Regarding Communication and Literacy*

UNC Faculty Mentor:
Dr. Karen Erickson

Rett syndrome (RTT) is a rare neurodevelopmental disorder occurring primarily in females. The hallmark course of development of RTT is a period of typical development in infancy followed by a marked period of regression leading to the loss of motor skills and spoken language. This regression, along with multi-system comorbidities, makes communication challenging for people with RTT. While experimental research suggests that many individuals with RTT are at pre-symbolic and pre-intentional levels, surveys from parents and professionals suggest more complex expressive language use, including aided augmentative and alternative communication. Literacy abilities in RTT remain largely unexplored, with literacy rates projected to be low across the population.

This multiple case study investigates communication, reading, and writing preferences in individuals with RTT. Using Talking Mats interviews, observations, field notes, and case histories, the study reveals that the participants have clear preferences and self-perceptions about communication and literacy. Convergent themes include adaptable multimodal communication, incongruent views of abilities, and resilience. Within the three cases, themes of unique communication abilities were revealed. This work has clinical implications for speech-language pathologists and educators in providing language and literacy interventions for RTT. Additionally, the study supports the use of Talking Mats in exploring preferences related to various topics for future research and practice. Future research should include more inclusive practices, such as formal member checking sessions, with people with RTT.

**Organizing Committee:**

Julia Drouin
Jessica Steinbrenner
Kimberly Jenkins
Katarina Haley
Adam Jacks

**Community Support:**

Kayla Rankin
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SPHS Division for generous funding

Are you a student interested in joining the organizing committee for next year's Research Day?

Please send an email to:
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