

Marquette University: Marquette speech pathology professor awarded \$1.1 million grant to investigate treatments for childhood apraxia of speech

Posted on Tuesday, Mar 8, 2022

>> **WisPolitics is now on the State Affairs network. Get custom keyword notifications, bill tracking and all WisPolitics content. [Get the app or access via desktop.](#)**

MILWAUKEE — [Dr. Jenya Iuzzini-Seigel](#), assistant professor of speech pathology and audiology in Marquette University's College of Health Sciences, has been awarded a \$1,156,000 grant from the Once Upon a Time Foundation for a randomized control trial that compares different treatment delivery schedules for children with childhood apraxia of speech.

CAS is a neurological speech disorder in which a child has difficulty planning and programming speech movements. This often results in highly unintelligible speech, even though the child knows what they want to say. Children with CAS will often require years of intense targeted treatment to improve the clarity and naturalness of their speech.

“There are few motor-based treatments for childhood apraxia of speech and there is a strong need for research that demonstrates their efficacy in large samples of children when different treatment parameters are varied,” Iuzzini-Seigel said. “There is a lack of sufficient evidence to guide decision-making regarding treatment distribution. While it seems intuitive to predict that more frequent treatment would result in greater treatment gains than less frequent treatment, even at the same total dosage, empirical research is needed. This study will compare treatment outcomes when DTTC — or Dynamic Temporal and Tactile Cueing — is provided twice a week for 12 weeks versus four times per week for six weeks.”

DTTC is one motor-based speech treatment where the therapist selects specific word targets and helps the child to produce these words accurately and consistently over time using a cueing hierarchy. Initially the therapist provides substantial cueing (e.g., having the child produce the word simultaneously with the therapist while the child watches the therapist's mouth). Over time and with extensive practice, the child will become more independent, and the therapist will fade these supportive cues.

This grant will fund a multisite phase II randomized control trial that will document the outcomes of DTTC in young children with CAS who are between 30 months and seven years of age. Treatment will be conducted by clinicians throughout the U.S. to increase clinical uptake of the treatment. This two-year study will examine the impact of DTTC on 60 children with CAS when dose frequency is varied between groups.

"We look forward to seeing which condition shows better efficacy," Iuzzini-Seigel added.

"We are excited for Dr. Iuzzini-Seigel, as this award is recognition of her research and scholarship on CAS," said [Dr. William Cullinan](#), dean of the College of Health Sciences. "This much needed research could have a lasting impact on the treatment process for children coping with CAS and lead to long-standing change in treatment delivery."

Iuzzini-Seigel is the lead principal investigator on the project, working with co-PIs Dr. Julie Case, assistant professor at Hofstra University; Dr. Maria Grigos, associate professor at New York University; Dr. Shelley Velleman, professor at the University of Vermont; and co-investigators Dr. Donna Thomas, lecturer at the University of Sydney; and Dr. Elizabeth Murray, director of Remarkable Speech and Movement.

The Once Upon a Time Foundation is a \$250 million private foundation based in Fort Worth, Texas. It supports a wide range of organizations including those that provide arts and humanities, community affairs, health and medicine, human services, and education benefits to members of the community. The foundation's Child Apraxia Treatment program provides resources to both parents and clinicians on evidence-based assessment and treatment of CAS, including the DTTC treatment method. Grants have been awarded to study the effects of various treatment conditions, including parent training, length of therapy session, and effects of masking on outcome measures for children with moderate to severe childhood apraxia of

speech, using DTTC.