



### Introduction

- ASHA (1999) defines fluency disorders as "deviations in continuity, smoothness, rhythm, and/or effort with which phonologic, lexical, morphologic, and/or syntactic language units are spoken" (p.3)
- Several researchers (Conture, 2001; Guitar, 2006) define the core behaviors of stuttering as repetitions, audible sound prolongations, and inaudible or silent blocks
- For young children who are in the early stages, researchers (Ambrose & Yairi, 1999; Richels & Conture, 2010) have identified stuttering-like disfluencies (SLDs) versus non-stuttering-like disfluencies with SLDs including sound-syllable repetitions, single-syllable whole-word repetitions, and dysrhythmic phonations or prolongations, blocks and broken words
- Research has identified early childhood characteristics that may be predictors of chronicity or recovery including (a) family history, (b) gender, (c) temperament, (d) ratio between SLDs and total disfluencies, (e) age of onset, (f) time since onset, (g) variability of disfluencies, (h) parental concern, (i) concurrent speech and/or language disorders, and (j) environmental factors
- Best practices should include considerations of these factors when making clinical decisions for children in the early stages of stuttering

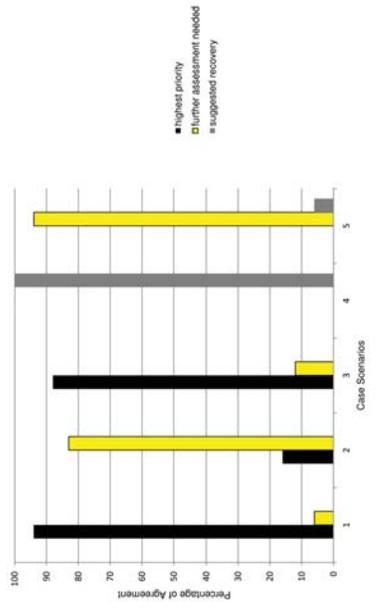
**Purpose:** To investigate and gather initial data on the use of a formative assessment tool, which could be used to evaluate the clinical knowledge of graduate students for making clinical decisions based on early indicators of stuttering

### Methodology

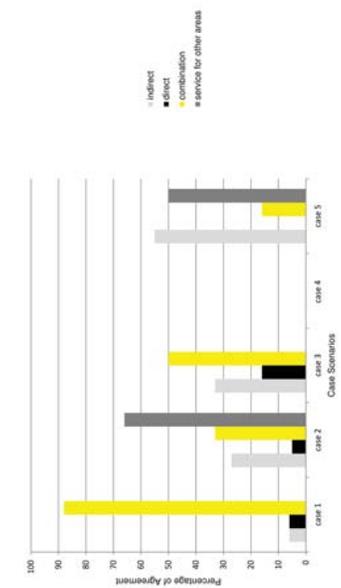
- Participant:**
  - 18 second year graduate year students enrolled in SLP 855
  - Fluency Disorders course
  - Academic Undergraduate Experience
  - 3 participants reported taking an undergraduate class on fluency
  - 2 of these 3 participants reported a focus on the early indicators of stuttering during their undergraduate course
  - Clinical Undergraduate Experience
    - No participants reported clinical experience at the undergraduate level
- Procedures:**
  - 5 case scenarios were developed with varying predictors for each
  - Scenarios included conflicting indicators (e.g., male child with no family history of stuttering and early onset)
  - Participants were instructed to select up to 5 predictors that lead to the participant's clinical decision regarding the following
    - Decision of whether or not intervention was warranted or if further assessment was needed
    - If intervention was recommended, decision of focus of intervention (i.e., indirect, direct, combination of indirect/direct, focus on concomitant disorders)

### Results

**Figure 1.** Identifying Predictors for Persistence of Stuttering or Recovery From Stuttering for 5 Case Studies.



**Figure 2.** Percentage of Agreement Among Participants for Recommended Intervention.



**Table 2.** Predictors Identified as Most Relevant to Clinical Decision Making for Each Case Scenario

Case Studies	#1	#2	#3	#4	#5
Age of onset	6	9	6	15	17
Time since onset	15	16	3	13	6
Variability of disfluencies	10	3	1	7	5
Gender	0	1	14	8	12
Family History	1	18	17	11	3
Parental Concern	18	1	12	11	3
Temperament	18	1	18	1	2
Ratio between SLDs	18	13	15	14	5
Concurrent speech and/or language disorder	0	17	0	0	15
Environmental factors	1	0	2	0	13

### Discussion and Conclusion

- There was only a slight degree of variance among participants in level of priority, recommended intervention and predictors identified
- Results suggested that the survey instrument serves as a reliable means to assess the clinical knowledge of graduate students for making clinical decisions based on the early indicators of stuttering
- Further research should use the case scenarios as a pre- and post-assessment of graduate students on clinical decision making with the pre-assessment prior to lectures, readings and activities related to the early predictors and the post-assessment following these activities

### References

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Richels, C. & Conture, E. (2010). *Indirect treatment of childhood stuttering: Diagnostic predictors of treatment outcome*. In B. Guitar & R. McCauley (Eds.), *Treatment of stuttering: Established and emerging interventions*. Philadelphia: Lippincott Williams & Wilkins.

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