Creating & Implementing a Culturally Responsive Stuttering Assessment for Bilingual School-Age Children

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Disclosures
• Salaried employee; University of Houston
• Honorarium from ICCD
• National Black Association for Speech-Language and Hearing
  - Board of Directors – Chair
  - American Speech-Language Hearing Association
  - Board of Directors – Member

Background
• Associate Professor & Director - Stuttering Analysis Research Lab
  - University of Houston; Dept of Comm. Sci. & Disorders
• Ph.D., Hearing & Speech Sciences
  - Vanderbilt University School of Medicine (Nashville, TN)
• M.S., Communication Disorders
  - Howard University (Washington, D.C.)
• B.S., Communication Disorders
  - Truman State University (Kirksville, MO)
• Clinical/Research Area of Expertise: Fluency & Fluency Disorders
• Published/presented on Developmental Stuttering in children
• Urban public and charter school experience
• Experience with culturally and linguistically diverse children
• Taught graduate level Fluency Disorders course since 2008
• Taught courses and presented on multicultural considerations in service-delivery since 2003

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Learning Objectives

After completion of this program, participants will be able to:

- Describe cultural competence and cultural humility.
- Explain the importance of considering the impact of cultural differences between the client and clinician in clinical service delivery.
- Explain research findings on bilingualism and stuttering.
- Describe considerations that must be made before, during, and after a stuttering assessment with a bilingual child.

Session Outline

- Introduction
- Importance of this Session
- Understanding Cultural Competence and Cultural Humility
- What we know about Stuttering in CLD Children
- The Impact of Cultural and Linguistic Diversity on Stuttering
- Traditional Fluency Assessment
- Bilingual Assessment
- Case Study
- Wrap Up
- Questions & Answers

Session Logistics

Your participation is welcomed, encouraged, needed, and required.

- Please mute your mics
- Feel free to turn on your camera
- Please use the chat feature
- Ask questions
- We will use online participation (keep a smart device handy)
- #Poll
- #OpenMic
- #WordCloud
Why is this important?

Why are you here?
Why is this information important to you?

A Historical Perspective on IDEIA

- 1973: State ruling; testing in primary language
- 1975: State ruling; school is to provide equal education to non-English speakers
- 1975: Education of All Handicapped Children Act
- 1986: Education of All Handicapped Children Act Amendment
- 1997: Individuals with Disabilities Education Act
- 2004: Individuals with Disabilities Education Improvement Act
Legal Requirements

Individuals with Disabilities Education Improvement Act

- Ensure that assessments are selected and administered so as not to be discriminatory on a racial or cultural basis.
- Assessments are provided and administered in the child’s native language or other mode of communication and in the form most likely to yield accurate information on what the child knows, can do academically, developmentally, and functionally, unless it is clearly not feasible to so provide or administer.
- Expectations to consider alternative forms of assessment with a variety of data-gathering strategies.

- This will help to identify a communication disorder versus a communication difference.
- You must be able to identify what's normal based on their culture.

Racial & Ethnic Diversity is Growing in the US

The number of individuals identified as White only in the US is decreasing while those identified as another race or ethnicity (or a combination) is increasing.

www.census.gov/programs-surveys/popest.html

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Projected Change in the US Population by Race/Ethnicity, 2010 to 2020

Double digit growth expected in many culturally diverse racial groups

Racial & Ethnic Diversity in Iowa

Data indicate growth by race and ethnicity in culturally diverse groups.
### Language in Iowa

- **Spanish (2019)**
  - 130,407: Number of Iowa residents age 5 and older who speak Spanish at home; 62% of those report speaking English 'very well'.
  - 20,590: Number of Spanish speaking English Language Learners in Iowa's public schools during the 2019-2020 school year; 222.8% increase from 1999-2000.

- **Other Languages**
  - The most common foreign languages spoken in Iowa are Spanish (123,629 speakers), Arabic (11,940 speakers), and Chinese (inclusive Mandarin, Cantonese) (11,441 speakers).


### 2020 ASHA Certified Membership

- 6.5% (6.2%) of ASHA members and affiliates identify as racial minorities; 26.8% of the U.S. population is estimated to identify as racial minorities.

- 8.1% (5.5%) of ASHA members and affiliates identify as Hispanic or Latino; 18.5% of the U.S. population is estimated to identify as Hispanic or Latino.

- 81% identify as White only

- [https://www.asha.org/siteassets/surveys/2020-member-and-affiliate-profile.pdf](https://www.asha.org/siteassets/surveys/2020-member-and-affiliate-profile.pdf)

2020 ASHA Bilingual SLP Providers

- 1.8% (n=24) of ASHA bilingual service providers in Iowa.
- 13 are Spanish-Language service providers

Understanding Cultural Competence V. Cultural Humility

Defining Culture

- **Shared rules** of appropriate behavior that are learned by individuals as a consequence of being members of the same group or community, as well as the values and beliefs that underlie overt behaviors and are themselves products of group membership.

- **Shared patterns** of behavior that are learned through socialization
What do you know about Culture?

- Culture is dynamic and ever changing
- Learned through socialization
- Exists at an unconscious level
- Binds group members to make them “identifiable”
- Cultures can be defined by location, religion, gender and sexuality, environment (e.g., school, work)

What culture actually looks like?

Spelling out Culture

CULTURE
Cultural Competence According to ASHA

“Cultural competence involves understanding and appropriately responding to the unique combination of cultural variables and the full range of dimensions of diversity that the professional and client/patient/family bring to interactions.”

“Developing cultural competence is a dynamic and complex process requiring ongoing self-assessment and continuous expansion of one’s cultural knowledge.”

Cultural Humility

- Lifelong commitment to self-evaluation and self-critique; a desire to fix power imbalances that are inappropriately in place; interest in developing partnerships with people and groups who advocate for others

Cultural Competence v. Cultural Humility

- Ability of the service provider to recognize, honor, and respect the beliefs, interaction styles, and behaviors of the people we serve; respecting differences and an eagerness to learn and accept different existing views.
Moving from Cultural Competence to Cultural Humility

What we know about Stuttering in CLD children

REVIEWING THE LITERATURE

CLD Groups in Stuttering Research

- **CLD Group: Indian**
  - Stuttering intervention can be provided by psychologists, psychiatrists and through the use of alternate systems of medicine and yoga (Subramanian & Prabhu, 2005).

- **CLD Group: Maylasian**
  - Little adaptation to Maylasian culture was needed to achieve positive outcomes using the Lidcombe Program (Vong, Wilson & Lincoln, 2016).

- **CLD Group: Turks**
  - Attitudes about stuttering were similar across the US and Turkish children (Waldner, St. Louis, Nakisci, & Oslensic, 2017).
Published Works on Stuttering In CLD Communities

- Clinical framework that includes cultural considerations for stuttering intervention with African American children and families (Robinson & Gress, 1998).
- Prior to working with a person who stutters from a multicultural population, clinicians should research the culture (Tellis, 2002).
- Assessment and treatment should be specific to the cultural needs of the client (Tellis & Tellis, 2003).
- Expect clinical challenges when identifying stuttering in an unfamiliar language, the role of language proficiency and cultural influence (Shenker, 2011).

CLD children in Stuttering Research (US)

- Large focus on stuttering and speech fluency in bilingual Spanish-English children (Byrd, Bedore, & Ramos, 2015; Byrd, Watson, Bedore, & Mullins, 2015; Byrd, Watson, Bedore, & Mullis, 2015).
- Limited focus on other CLD groups of children in the US.
- No difference in frequency of stuttering in African American children in comparison to European American children (Proctor et al., 2008).
- Bilingual Urdu-English children who do not stutter mirror bilingual Spanish-English children who do not stutter in presenting with a high frequency of stuttering-like disfluencies in both languages (Kabani & Johnson, 2019).
- Frequency of stuttering-like disfluencies from narratives do not increase risk for misdiagnosis of stuttering in AAE dialect speakers (Johnson & Mills, 2019).

Bilingual Spanish-English Speaking Children in Stuttering Research (US)

- The frequency of speech disfluencies exhibited by bilingual Spanish-English speaking kindergartners who stutter exceed the standard of monolingual English-speaking kindergartners who stutter (Byrd, Bedore, & Farnes, 2015).
- Bilingual Spanish-English CWS present with more function words than content words, similar to what is found with monolingual English CWS (Ghalihsaz, Byrd, Bedore, & Weaver, 2017).
- 12 of 14 bilingual SLPs incorrectly identified a bilingual Spanish-English child with normal disfluency as a CWS; 10 of the 14 bilingual SLPs correctly identified the bilingual Spanish-English CWS as a CWS. Findings suggest the need for more data to reduce inaccurate diagnoses (Byrd, Watson, Bedore, & Mullins, 2015).
Speech Disfluencies in Spanish-English Speaking Children
(Rincon, Johnson & Byrd, 2020)

Purpose:
Speech Disfluencies in S-E Children

- To examine the frequency and type of speech disfluencies of bilingual Spanish-English children who stutter and do not stutter based on change in language (English vs Spanish) and speaking task (narrative vs conversation).

Study Design & Methods:
Speech Disfluencies in S-E Children

- VHF Z V
- VHF Z Q V

- English
- Conversation
- Narrative

- English
- Conversation
- Narrative

- English
- Conversation
- Narrative

- English
- Conversation
- Narrative
Participants Information:
Speech Disfluencies in S-E Children

**AGE & GENDER**
- S-E CW: M=7.79 yrs, SD=1.39, 3 males, 4 females
- S-E CW2: M=6.26 yrs, SD=1.35, 4 males, 4 females
- No statistical difference in age, t(13)= -4.63, p<.05

**BIOS – Language Input & Output**
- S-E CW: M=47.35, SD=14.07, %EO: M=52.67, SD=14.97
- S-E CW2: M=55.44, SD=17.19, %EO: M=44.56, SD=17.19
- No statistical difference in Spanish Input/Output, t(13)= -9.70, p<.05, or English Input/Output, t(13)= -9.70, p<.05

**BESA – Language Index Score**
- S-E CW: M=112, SD=5.77
- S-E CW2: M=113.68, SD=4.21
- No statistical difference in Language Index Score, t(13)= -5.52, p<.05

Results – Frequency of SLDs:
Speech Disfluencies in S-E Children

Results – Type of SLDs (Repetitions):
Speech Disfluencies in S-E Children
Results – Type of SLDs (Prolongations): Speech Disfluencies in S-E Children

Dialog (Table 6) Statistical differences in Listeners. Spanish, t(13)= 2.462, p<.01. Non-English, t(13)= 3.129, p<.01. Conv-English, t(13)= 1.806, p<.001, or Conv-English, t(13)= 2.605, p<.001.

Discussion: Speech Disfluencies in S-E Children

- **Frequency of speech disfluencies**: No differences between the S-E CWS and CWNS.
- **Type of speech disfluencies**: There were differences in audible and inaudible sound prolongations.
- CWNS are inconsistent in meeting or surpassing the diagnostic criteria of 3% SLDs which could result in a misdiagnosis of stuttering especially if stuttering is examined in one language and not the other.

Speech Disfluencies in Urdu-English Speaking Children (Kabani & Johnson, 2019)
Purpose:
Speech Disfluencies in U-E Children

- To examine the frequency and types of speech disfluencies in school-age U-E speaking children who do not stutter (CWNS) during a narrative and conversational sample.
- This study also made comparisons between the speech disfluencies of U-E CWNS and S-E CWNS from Rincon et al., (2020).

Study Design & Methods:
Speech Disfluencies in U-E Children

Participants Information:
Speech Disfluencies in U-E Children

- 6 bilingual U-E children (5:0-7:11 years old)

<table>
<thead>
<tr>
<th>ID</th>
<th>Age</th>
<th>Gender</th>
</tr>
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<tbody>
<tr>
<td>CWNS 1</td>
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<tr>
<td>CWNS 5</td>
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<td>Male</td>
</tr>
<tr>
<td>CWNS 6</td>
<td>6, 0</td>
<td>Male</td>
</tr>
</tbody>
</table>
Results – Frequency of SLDs: Speech Disfluencies in U-E Children

U-E children with typical fluency presented with an average of 3 SLDs per 100 words in narrative samples (versus conversational samples) in both languages.

Results – Type of Speech Disfluencies: Speech Disfluencies in U-E Children

Urdu-English children with typical fluency presented with monosyllabic whole-word and sound/syllable repetitions which is similar to S-E children with typical fluency.

Clinical Implications

- Learning more than one language increases the cognitive load of a child resulting in increased speech disfluencies.
- There is research that is beneficial to service delivery with CLD populations (primarily bilingual children).
- Lack of stuttering research that is inclusive of CLD children or focused on CLD children with the exception of bilingual children.
- Lack of research minimizes the importance of the cultural considerations that can impact assessing and treating stuttering in CLD children.
The Impact Of Cultural And Linguistic Diversity On Stuttering

The Impact of Culture on Communication

- Pragmatics
  - Greetings, personal space, turn taking, eye contact, humor, gestures, manner (nonverbal, verbal)
- Syntax
  - Verb conjugation varies, pragmatics used for syntax influence
- Semantics
  - Differences in vocabulary words used for the same item
- Morphology
  - When and how morphemes are used
- Articulation
  - How words are pronounced

The Impact of Culture on Stuttering

Core & Secondary Behaviors

- Core Behaviors Present
  - Speech disfluencies can be a part of cultural communication
- Secondary Behaviors Can Be Misinterpreted
  - Lack of eye contact due to cultural differences
  - Changing words due to language learning rather than avoidance
  - Culturally appropriate behaviors can make stuttering appear more severe
**The Impact of Culture on Stuttering**

**Linguistic Cultural Differences**
- Language differences between the SLP and the client can impact a clinician's ability to identify speech disfluencies.
- Findings indicate that clinicians may be equipped to identify a person who stutters and speaks a different language, but may have difficulty identifying the location of the speech disfluencies in the language that is different from their own (e.g., Bosshardt, Packman, & Blomgren, 2016; Cosyns, Einarsdottir, Van Borsel, 2015).

**Feelings, Attitudes**
- Child may have language specific negative emotions due to language learning.
- Increased demand for 'perfection' or 'correct speech' when using a particular language leads to increased negative feelings associated with that language.
- Child may also appear to limit verbal output due to cultural reasons rather than because of stuttering.
  - Example: Cultures that find it inappropriate for children to carry on in-depth dialogues with an adult (or elder), children should be 'seen and not heard.'

**Culturally-based Etiologies**
- Cultural beliefs on the causation of stuttering can impact service-delivery.
  - Can lead to families not wanting to proceed with stuttering intervention
  - Can lead to alternative stuttering intervention recommendations or none
  - Video
A Traditional Stuttering Assessment for a Child

- Case History & Interview
- Speech Sample
  - Conversation and/or narrative
  - Conversational partner (clinician, family member)
  1. Tabulate Speech Disfluencies
  2. Duration of stuttering-like disfluencies
  3. Speaking rate
  4. Note any secondary behaviors
  5. Assess feelings and attitudes
    - Questionnaires available (e.g., Kiddy:CAT; OASES)
- Stuttering Assessments
- Speech & Language Assessment (formal or informal)
Traditional Assessment Process

Considering a Diagnosis for a Child
- High frequency of stuttering-like disfluencies
- Family Hx of stuttering
- Time Since Onset
- Iterations
- Awareness and/or concern
- Secondary behaviors
- Stuttering duration greater than 1 sec

A Culturally Responsive Stuttering Assessment
Culturally Responsive Assessment Protocol

Fluency Assessment Tools from a Cultural Viewpoint

1. Formal assessment tools for stuttering are commonly included in fluency assessments with children (and adults).
2. These assessment tools provide invaluable insight on the disfluent behaviors and other related behaviors.
3. However, some of these tools are not culturally sensitive.
4. Consider whether the child’s racial/ethnic culture was included or represented in the development of the tool? If not, be cautious of the results and the interpretation of the results.

Fluency Assessment Tools Viewed through a Culturally Responsive Lens

   - No guidance provided for use with bilingual speakers (who may present with more SLDs) or how to address cultural conversational behaviors that overlap with behaviors associated with stuttering severity (e.g., eye contact).

2. KiddyCAT
   - No guidance on use with CLD children who differ in the display or openness of feelings and attitudes or culturally-based tendency to agree with an elder.
**Fluency Assessment Tools Viewed through a Culturally Responsive Lens**

More recent assessment tools are addressing cultural and linguistic diversity.

- **The Test of Childhood Stuttering**
  - Manual includes demographic information of normed sample which includes children from many racial/ethnic groups (e.g., White, African American, Asian/Pacific Islander, Hispanic).
  - Manual states that it is inappropriate for use with children who have limited English proficiency.
  - Has been used cross-culturally to examine validity and reliability in other ethnic groups (e.g., Shahbodaghi, Khatonabadi, Jalaie, 2011; Dadgar, Jalaie, 2011).

- **The Overall Assessment of the Speakers’ Experience of Stuttering**
  - Since its initial development, the OASES has been translated, published, and validated for clinical use in other languages (e.g., Spanish, German, Dutch, Hebrew, Portuguese; Stuttering Therapy Resources, 2018; Bleek, Reuter, Yaruss, Cook, Faber, Montag, 2012; Koedoot, Verbong, Yaruss, 2011).

**Culturally Responsive Stuttering Assessment**

- Continuously analyze the child’s speech disfluencies in comparison to another child with the same cultural and/or linguistic background.
  
  *How does the child’s speech disfluencies compare to the speech patterns of another child with the same cultural background?*

- Rely less on frequency of disfluencies and more on (1) listener perception and types of speech disfluencies displayed and less on frequency

  *Does the child sound like a child who stutters?*

**View Nonverbal Behaviors Through a ‘Cultural Lens’**

- Some nonverbal behaviors can be attributed to culture
  - **Example:** Direct eye contact versus lack of eye contact (Roseberry-McKibben, 2014; Nishishiba, 2017).

- Cultural differences in age and gender
  - **Example:** Mainstream culture (U.S.) Appropriate for parent-child conversation; (Traditional Asian culture) Inappropriate to expect parent-child conversation (Klein, Chen, 2001).

- Cultural differences in conversational style
  - **Example:** Normally high frequency of conversational interruptions and speaking that is based on culture

- Consider the intent of any code-switching observed during the assessment
  - **Question:** Code-switching the result of language learning or stuttering concern?
Culturally Responsive Questions

- What languages are spoken in the home? Does the child speak and/or understand those languages?
- Is the family originally from the US; if not, how long have they been in the states? What countries have they lived in?
- Does the parent or family have any opinions about stuttering?
- Who does the family see if someone is sick? What does the family do if someone is sick?

Cultural Response Tips for Bilingual Children

- Obtain a speech sample in both languages (conversation and narrative when possible)
- Video record samples and have a bilingual SLP or interpreter assist in coding the sample
- Bilingual Input-Output Survey (BIOS) – Associated with the Bilingual English-Spanish Assessment (BESA) (Brookes Publishing)
- Alberta Language and Development Questionnaire (ALDeQ)

Time to Break Out

- Case is on your handout
- Create a group name
- Designate a facilitator
- Designate a notetaker
**CASE STUDY**

Matthew is a five-year-old English-Spanish bilingual child. His parent is seeking a professional opinion after Matthew’s kindergarten teacher raised concern about his speech fluency. Matthew began learning English first, which is the language spoken at home. But, at the age of 4, he began attending a dual language preschool where he was first introduced to Spanish. According to Matthew’s parent, he only speaks Spanish in school.

He reportedly began exhibiting speech disfluencies at 3.5 years of age, but the parent reports them to have been less frequent and less noticeable at that time. However, since the beginning of the first grade, the parent reports noticing an increase in frequency of speech disfluencies. The parent mentions that Matthew tends to exhibit the “stuttering” in English when Matthew responds to questions in class or explain something, but considers it less noticeable when Matthew is speaking Spanish.

1. **How do you prepare for this assessment in a culturally responsive way?**
2. **What will your culturally responsive assessment protocol include?**
3. **What factors will you consider specific to the core behaviors of stuttering?**
4. **What factors will you consider specific to secondary behaviors?**
5. **What cultural considerations will you include?**

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**Wrap Up**

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Final Notes

- Always consider, acknowledge, and respect the families' cultural perceptions of the etiology and treatment of stuttering.
- Where appropriate, consider incorporating cultural aspects in assessment and treatment to establish rapport with the child and their family.
- Never assume that every child (and their family) from the same CLD background will present with the same cultural characteristics.

QUESTIONS

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References


References


