

Sponsored by the Evidence-Based Practice Committee

Clinical Research Collaboration Roundtable

Panelists

- Catherine Balthazar, Ph.D., CCC-SLP
- Associate Professor at Governors State University
- Courses: child language development, language disorders, research, professional issues, and phonological disorders
- Specialties: developmental language disorders, treatment efficacy, school-age language, single subject design

Agenda

- Overview and Introduction (15 minutes)
- Panelist Presentations (60 minutes)
- Break-out Roundtable Discussions (40 minutes)
- Closing Remarks (5 minutes)

Panelists

- Jessica Bonner, Ph.D., CCC-SLP
- Associate Professor at Governors State University
- Courses: Neuroanatomy and Physiology, Dysphagia in Adults and Children, and Adult Language and Cognitive Disorders
- Specialties: Pediatric traumatic brain injury, parent training in pediatric dysphagia.

Objectives

- Describe several clinical research projects in Illinois
- Discuss three methods of addressing clinical research questions
- Identify opportunities for clinical research collaboration

Panelists

- Stephanie Hughes, Ph.D., CCC-SLP
- Assistant Professor at Governors State University
- Courses: fluency, research methods, and voice
- Specialties: psychosocial aspects of stuttering, including factors that influence communicative success between people who stutter and people who do not stutter

Panelists

- Ravi Nigam, Ph.D., CCC-SLP
- Assistant Professor at Governors State University
- Courses: child language development, language disorders, augmentative communication
- Specialties: ethnic and cultural validation of graphic symbols, and the examination of clinical procedures in child language intervention.

Phases of Clinical Outcomes Research

Phase	Purpose	Methods
Phase I Preliminary	The intervention and its hypothesized effects are identified	Observational or correlational, estimates of effect size
Phase II Feasibility	Clinical viability of the intervention is tested	Case studies, discovery-oriented single-subject designs, and small group cohort control studies
Phase III Early Efficacy	Begin to test efficacy	Experimental, or at least quasi-experimental; test causality
Phase IV Later Efficacy	Compare target intervention with alternative intervention to address causality under more generalizable conditions	Experimental
Phase V Effectiveness	Determining whether the therapeutic effect is realized in day-to-day clinical practice	"field research" or "community-based research"

Clinician-Researcher Collaboration

- Generates clinically relevant research questions
- Guides methodology of clinical studies
- Promotes adoption of research-based methods in clinical settings
- Connects clients to state-of-the-art treatments

Featured Research Methods

- Qualitative
 - Explore "subjective" factors – those that don't lend themselves to quantification
- Survey
 - Investigate population characteristics through sampling
- Single-subject
 - Measure effects on individuals

A Word About Levels of Evidence

The diagram is a pyramid titled "Levels of Evidence". The levels are as follows:

- Ia:** Systematic Reviews
- Ib:** Randomized Controlled Trials
- IIa:** Cohort Studies
- IIb:** Case-Control Studies
- III:** Case Series, Case Reports
- IV:** Editorials, Expert Opinion

Stephanie Hughes

Fluency and Qualitative Studies

Qualitative Research: An Overview

- Qualitative research is meant to:
 - Gain insights into subjective issues
 - Investigate a topic from a deep rather than a broad perspective
 - Identify issues and opinions specific to small groups of people
- Qualitative research does not:
 - Lend itself to generalization
 - Indicate a single best answer to a research question
 - Generate objective numerical data which can be analyzed statistically

Example of a Qualitative Study

- Data Analysis:
 - Verbatim transcription of each recorded interview with parents.
 - Read and make notes about transcripts.
 - Identify similarities across interviews. "Code" data by labeling these similarities.
 - Check in with other researchers. Are they coming to the same conclusions as they review the data?
 - Develop major "themes" which account for the majority of responses; often done by grouping one or more codes into a thematic unit.
 - Have a devil's advocate challenge the results to see if researcher bias exists.

Qualitative Methodologies

- Participant selection: generally not random
- Data Collection
 - Interviews (structured, semi-structured)
 - Focus groups
 - Open-ended written surveys
- Data Analysis
 - Ongoing process as data is gathered
 - Involves organizing participants' statements into themes via field notes, reflection, analysis of written transcripts, etc.
 - Strives for "credibility" versus "reliability"

Presenting Qualitative Results

- Give as much detail as possible about the participants, data collection, and data analysis.
- Present major themes with quotes from participants to support the conclusions.
- Emphasize that results should not be generalized.
- Highlight importance of the research:
 - May give clinicians/researchers insights into the needs of clients and their families not usually obtained via quantitative methods.
 - Can design a better empirical study after qualitatively studying issues that affect the target population.

Example of a Qualitative Study

- Question: What are the perceptions, experiences, and coping strategies of parents of children who stutter?
- Participants: 8-10 parents whose children are enrolled in fluency therapy at a university clinic.
- Data Collection: Semi-structured interview questions, i.e.:
 - How does having a child who stutters affect your experiences as a parent?
 - Your personal journey (walk me through your experience)
 - Emotions (feelings, such as anger, guilt, shame)
 - Coping strategies (in what ways have you adjusted/changed your thoughts, feelings, or life experiences after learning that your child stutters)

Additional Resources

- Creswell, J.W. (2006). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Glesne, C. (2006). *Becoming qualitative researchers*. Boston: Pearson.
- Maxwell, J.A. (2005). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.

Jessica Bonner

Parent Training in Pediatric Dysphagia

Methods/Design: Outcome Measures

- To determine preferred methods participants were asked to
 - rate the "importance" of each method based on a 4-point scale:
 - 0 = unimportant, 1 = not very important, but may be included, 2 = important, and 3 = essential
- To determine the range of practice for each method participants were asked to
 - provide the percentage of parents with whom each method was employed (0-100%)

Study I: Parent training survey

- Background information
 - Importance of parents
 - ASHA guidelines
 - Current literature
- Research questions:
 - What are preferred SLP practices and range of practices?
 - What practices are used in families of diverse cultural/linguistic backgrounds?

Results

- Demographics
 - 110 participants; 95% MA degrees; ½ 5 years or less clinical experience/40% > 10 years; 35% trained parents daily; range of work settings
- Most frequent (and least variable) preferences and practices
 - Modeling, verbal instruction, & combined methods
 - S/S aspiration, altering food consistency; positive RF
 - Effective listening & being open to what parents say
 - Asking about preferred foods

Methods/Design: Survey Instrument

- 35 items related to various themes were developed using pediatric dysphagia research
- Themes:
 - Methods and Content of Instruction; Feeding/ Swallowing and Behavioral Techniques; Providing Feedback; Barriers; Cross-Cultural training
- Responses obtained via Survey Monkey
- Sample survey items

Conclusion

- Study provides insight into the current practices of SLPs in their collaboration and training with parents whose children have feeding/swallowing problems
- Clinicians are consistent in their preference and practice for skills-based methods, but less so for context-based methods
- Preference/practice patterns less congruent for cross-cultural training
- More research needed

Study II: Proposed single-subject research

- Use of videotape review (VR) in training parents
 - Results of parent training survey re: to videotaping/VR
 - VR used effectively to teach parents to facilitate language, to teach student clinicians, and to teach parents behavioral strategies used in feeding
 - Benefits and challenges
 - Research question

Language Intervention for Children Who Use AAC

Past Research

- Concomitant use of matrix strategy and mand-model procedure in teaching graphic symbol combinations.

Future Research Plans

- Effects of speech output in learning of multi symbol combinations .

Ravi Nigam

Augmentative Communication

Development and Sociocultural Validation of Core Lexicon for AAC

Past Research

- Development and sociocultural validation of core lexicon for Asian-Indian individuals who use AAC.

Current Research

- Development of core lexicon for Botswana culture.

Current Research Interests

- Language intervention for children who use AAC.
- Development and sociocultural validation of vocabulary for AAC.
- Sociocultural validation of graphic symbols.
- Research synthesis using meta-analysis

Sociocultural Validation of Graphic Symbols

Past Research

- Sociocultural validation of Picture Communication Symbols (PCS).

Current Research

- Translucency ratings of graphic symbols across cultural and ethnic groups.
- Sociocultural validation of PCS for Botswana culture.

Research Synthesis Using Meta-Analysis

Current Research

- Efficacy of Matrix Strategy for Teaching Early Multiword Combinations .

Research questions

1. Do students ages 10-16 with primary LI demonstrate gains in comprehension and production of complex sentences as a result of treatment ?
2. Are gains seen in both written and spoken language?
3. Are gains seen in both naturalistic language and NR tests

Collaborative Research Plans

- Teaching language skills to children who use AAC.
- Efficacy of animated graphic symbols.
- Cultural issues related to lexical selection, graphic symbol, and service delivery in AAC.

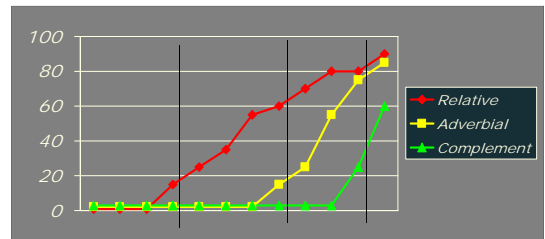
Research design

- Multiple-Baseline Single-Subject Design
- 3 target sentence structures (Adverbial, Relative, and Object Complement Clauses)
- Baseline performance measured prior to the initiation of treatment.
- During treatment, target structures measured continuously, while non-target structures probed periodically.

Catherine Balthazar

School-Age Language and Single Subject Design

Multiple Baseline Graph



Treatment Protocol

- Intensity/frequency: 40 minute sessions 2x/wk
- Session Structure:
 - Identification/Awareness/Exposure Phase
 - High frequency exposure/repetition of target sentence at isolated sentence and discourse levels
 - Decontextualized Phase
 - Build metalinguistic awareness of target structures by active manipulation (e.g., sentence combining, deconstruction, generation)
 - Scaffolded learning
 - Contextualized Phase
 - Apply metalinguistic skills in larger, meaningful texts to enhance comprehension and increase production

Roundtable Discussions

- Panelists and members of the EBP committee are at designated tables
- Join a table, or feel free to float
- Exchange research ideas, get help developing ideas into researchable questions, explore methods that would be appropriate for answering clinical questions, share experiences

Collaborating Sites and SLPs

- Public High Schools
- Private Clinics
- Public Middle Schools
- University Clinics

Thank You for Participating

- Fill out quick survey at back of handout and return to one of the panelists
- Future contacts encouraged
 - Catherine Balthazar c-balthazar@govst.edu
 - Jessica Bonner j-bonner@govst.edu
 - Stephanie Hughes s-hughes@govst.edu
 - Ravi Nigam r-nigam@govst.edu

Pilot Data

- Two students: Female, age 15;6, Male, age 12;8
- Improved from 18% to 95% during treatment
- Standard scores increased by 70 points across 10 (of 16) comparisons. Scores either decreased or stayed the same in 6 comparisons, totaling 16 points.
- Made gains in MLTU and in clause density.

EBP Clinical Research Collaboration Roundtable 2010

Participant Survey

1. Should this type of roundtable be offered annually at ISHA?
2. How adequate was the time allocated to panel presentations?
3. How adequate was the time allocated to roundtable discussions?
4. How could the session be organized better?
5. Name any individuals (including yourself!) whom you would recommend as panelists next year. If possible, provide contact information.
6. Anything else? We welcome your thoughts, criticisms, comments, etc.

Thank you!