



Creating Effective and Efficient Research Teams

2009 ASHA Convention New Orleans, Louisiana

Friday, November 20, 2009; 9:30 AM – 10:30 AM

Seminar Session Number 1926

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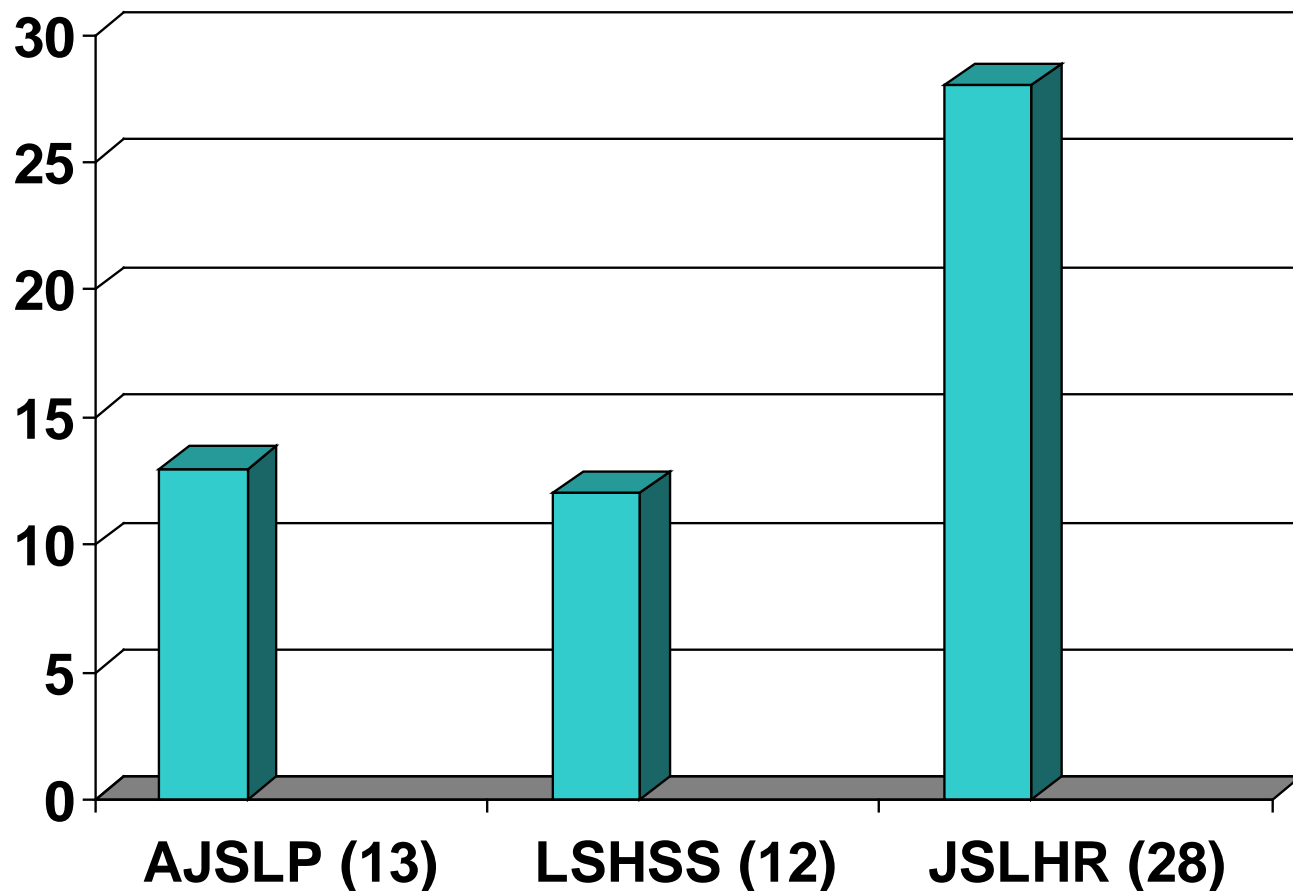
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The Problem

- Well-designed diagnostic and treatment studies are needed for evidence-based practice (EBP).
- “ASHA journals historically have published far fewer treatment studies relative to other types of research.” (Justice, 2008, p. 210)
- Bahr found this to be true when researching new parent book and article for *Communication Disorders Quarterly* (both, in press).

Group-Design Treatment Studies in ASHA Journals 1997-2006 (Justice et al., 2008)

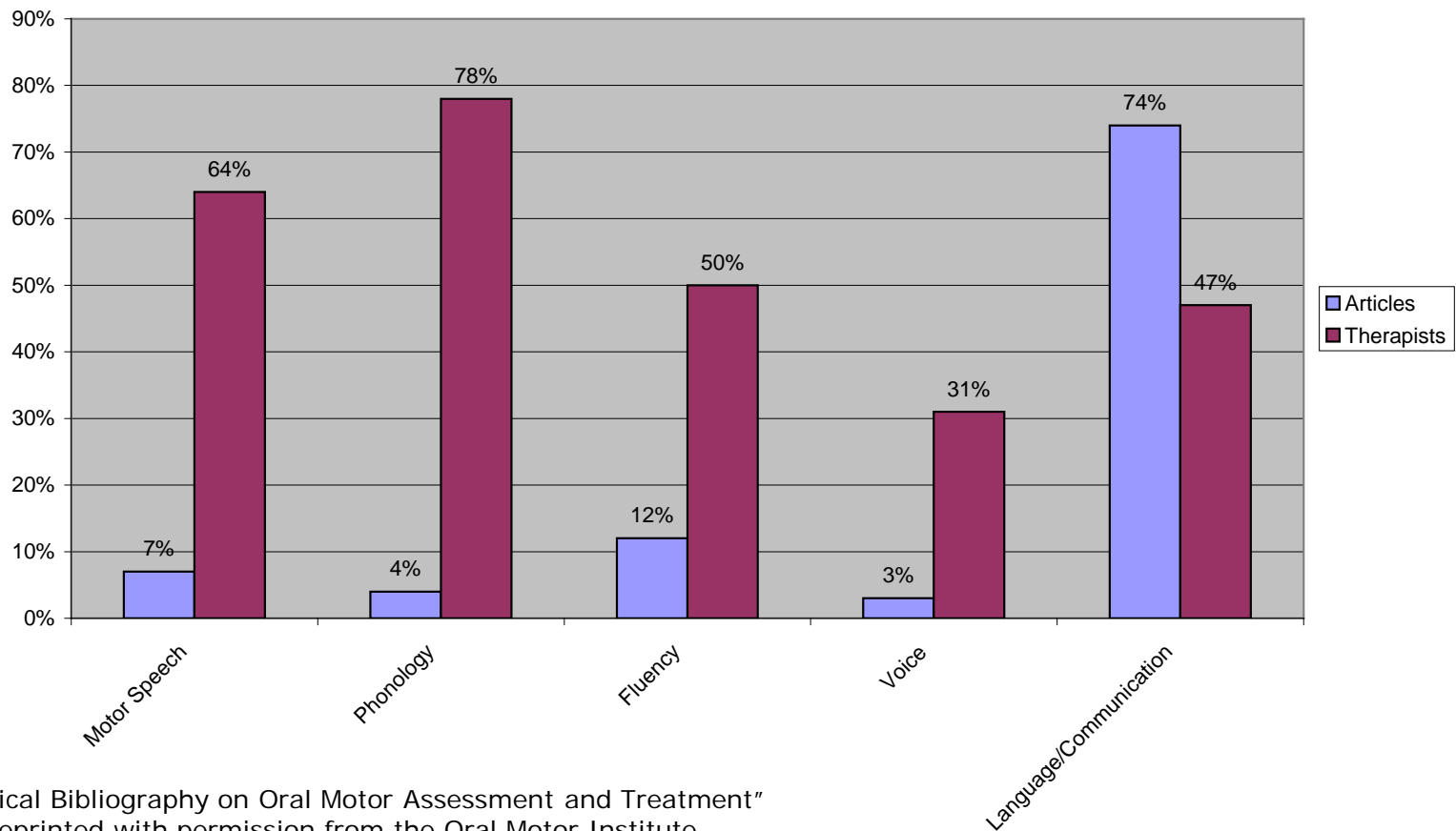


Justice, Nye, Schwarz, McGinty, & Rivera (2008) found:

- Approximately 1 group-design treatment study per year in *AJSLP* (13) and *LSHSS* (12).
- Almost 3 group-design treatment studies per year in *JSLHR* (28).
- The treatment studies covered a wide range of topics and were not uniform in quality.

Research in *AJSLP* 2004-2007 (N=117) Compared to 2008 SLP Practice Patterns from ASHA (Bahr, 2008)

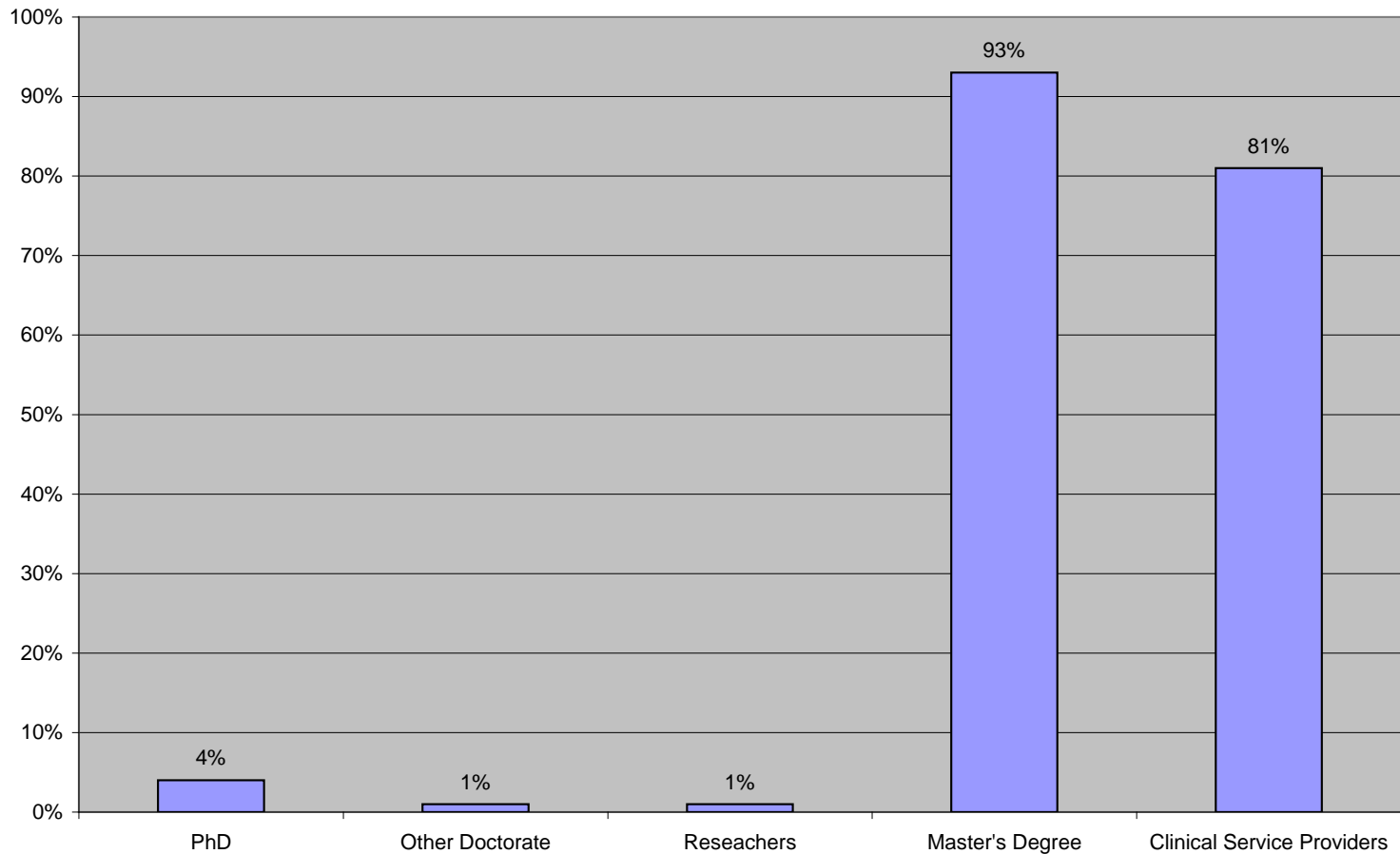
Percentage of Articles in *AJSLP* vs. Percentage of Therapists in Treatment Areas



Source: "A Topical Bibliography on Oral Motor Assessment and Treatment" (Bahr, 2008). Reprinted with permission from the Oral Motor Institute (www.oralmotorinstitute.org).

Need for Researchers in SLP Profession (Bahr, 2008)

ASHA Membership, Year-end 2006

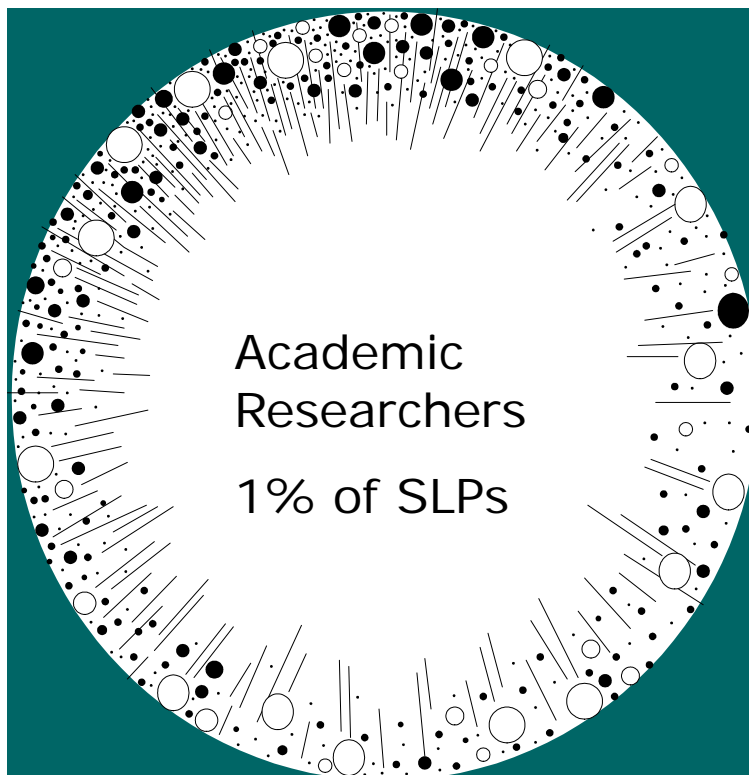


Source: "A Topical Bibliography on Oral Motor Assessment and Treatment" (Bahr, 2008). Reprinted with permission from the Oral Motor Institute (www.oralmotorinstitute.org).

Trends and Implications

- *AJSLP* research did not match SLP practice patterns.
- ASHA (2006) membership data indicated only one percent of the membership considered themselves researchers.
- Doctoral level SLPs appeared to conduct most of the published, peer-reviewed SLP research literature.
- Master level SLPs appeared to provide most of the clinical service.
- The discrepancy between the roles of academic researchers and clinicians may be a foundational problem in conducting and utilizing adequate and appropriate research for evidence-based practice.

There Appear to be Two Different Worlds/Spheres in the SLP Profession





The Solution

A New Research Paradigm/Model to:

- effectively and efficiently expand the number of academic and clinician researchers and subsequent studies in the field.
- better match research with areas of practice in which SLPs are engaged.
- promote group-design and other properly designed treatment studies to better meet the standards of evidence-based practice.
- ultimately create greater cohesion in the profession.



ASHA's Strategic Pathway to Excellence Supports this Model and Includes:

- “advancing communication science” as a part of the mission;
- “scientifically based, professional practice” as a strategic theme;
- “increased research commitment” as part of its strategic objectives;
- members “actively engaged in generating research and using evidence in clinical decision-making.” (ASHA, n.d.)

Academic-Clinician Researcher Model Supports ASHA's Mission:

- The researcher has access to an active caseload of clients for potential study participants, helping to ensure continued *generation* of research.
- The clinician becomes more involved and invested in the research process, helping to ensure *use* of study evidence in practice.
- The clinician learns about the research process and may become more interested in it, potentially leading to pursuit of further research training.

Bland, Seaquist, Pacala, Center, Finstad (2002)

- High research productivity is strongly associated with:
 - 8 **individual** characteristics
 - 15 **institutional** characteristics
 - 4 **leadership** characteristics

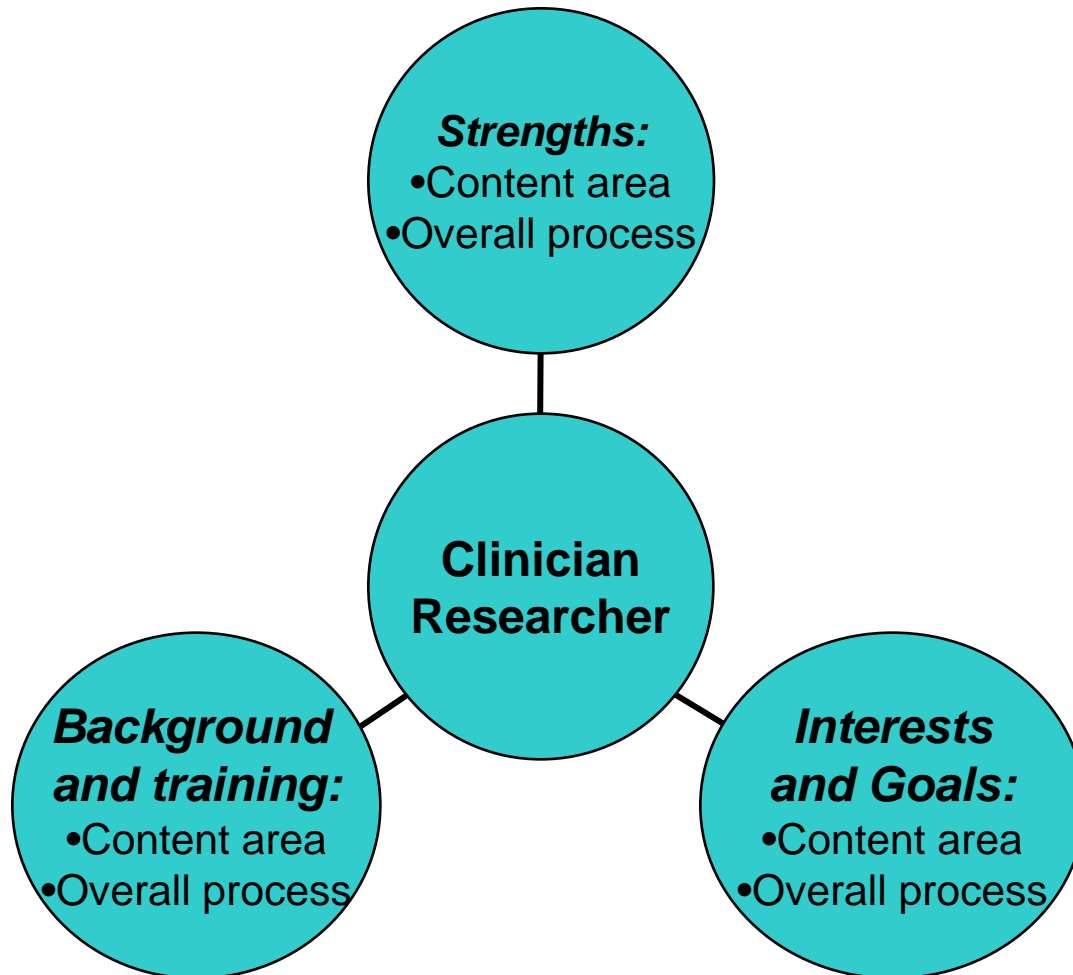
Bland, Center, Finstad, Risbey, & Staples (2005)

- Testing of model via regression analysis of survey data from 2000
 - 465 faculty at University of Minnesota Medical School—Twin Cities

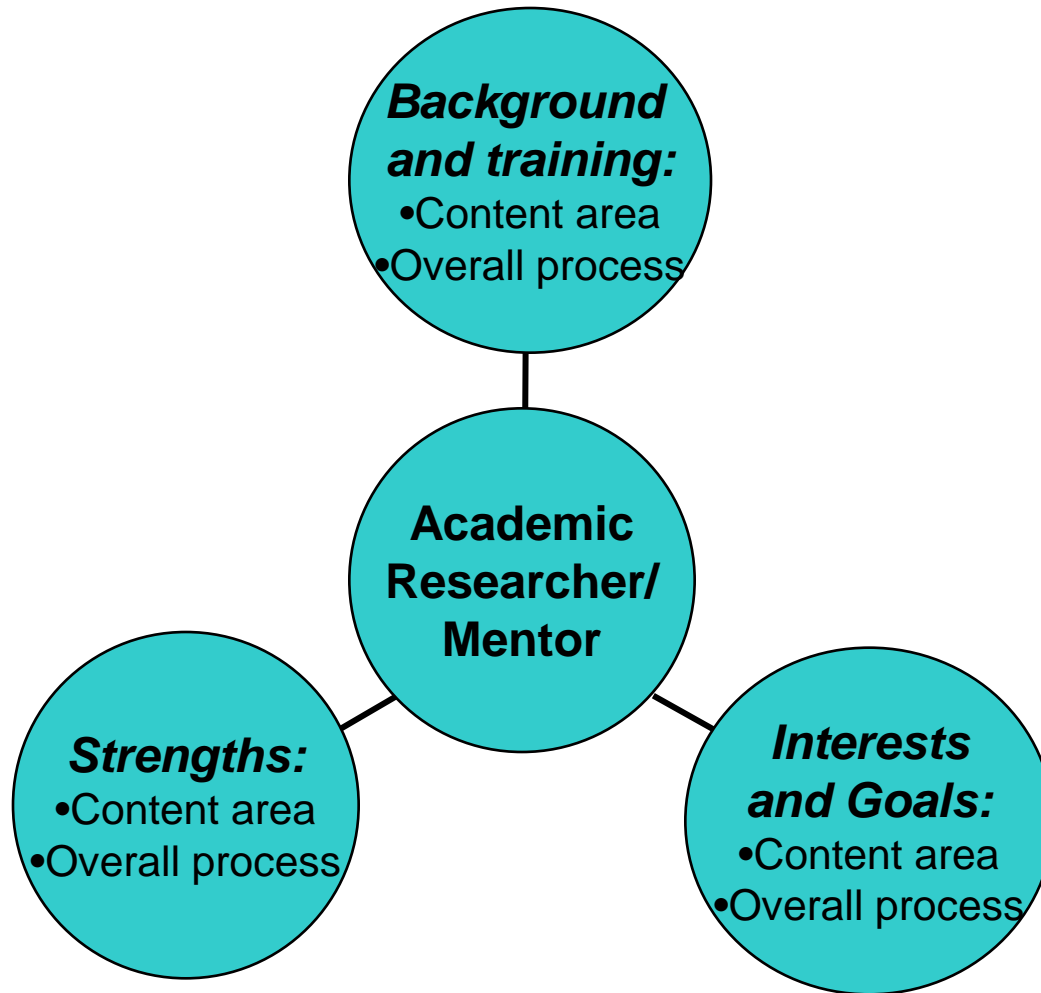
Bland, Center, Finstad, Risbey, & Staples (2005)

- Findings
 - Characteristics within model confirmed for high research productivity
 - Faculty productivity influenced by individual and institutional characteristics
 - Group (department) productivity influenced by institutional and leadership characteristics
 - Overall is an “...interplay of individual and institutional characteristics, supplemented by effective leadership....” (p. 225)

Closing the Gap to Support EBP (Creating Clinician Researchers)



Closing the Gap to Support EBP (Academic Researcher/Mentor)



The Worlds/Spheres Join Forces

Outcome: Improved Research in SLP



Examples Group-Design Treatment Studies Using Clinician-Academic Researcher Model

- Gillam, R. B., Loeb, D. F., Hoffman, L. M., Bohman, T., Champlin, C. A., Thibodeau, L., Widen, J., Brandel, J., & Friel-Patti, S. (2008). The efficacy of Fast ForWord language intervention in school-age children with language impairment: A randomized controlled trial. *Journal of Speech, Language, and Hearing Research, 51*, 97-119. (216 subjects, treatment delivered or supervised by certified/licensed SLPs)
- Major, E. M., & Bernhardt, B. H. (1998, Oct.-Dec.). Metaphonological skills of children with phonological disorders before and after phonological and metaphonological intervention. *International Journal of Language and Communication Disorders, 33*(4), 413-444. (19 subjects, conducted by community SLPs, overseen by academic researchers)

Other Examples of Clinician-Academic Researcher Collaboration

- Kumin, L., Von Hagel, K. C., & Bahr, D. C. (2001, Sept./Dec.). An Effective Oral Motor Protocol for Infants and Toddlers with Low Muscle Tone, *Infant-Toddler Intervention*, 11(3-4), 181-200. (4 subjects)
- Spielman, J., Ramig, L. O., Mahler, L., Halpern, A., & Gavin, W. J. (2007, May). Effects of an Extended Version of the Lee Silverman Voice Treatment on Voice and Speech in Parkinson's Disease, *American Journal of Speech-Language Pathology*, 16, 95-107. (12 subjects)
- Skelton, S. L., & Taps, J. (2008, Nov.). Concurrent treatment in speech-improvement class: A motor-skill-based treatment for speech-sound disorders. Seminar presented at the annual meeting of the American Speech-Language-Hearing Association, Chicago, IL. (15 experimental, 12 control subjects, San Diego Unified School District)

Examples of Group-Design Diagnostic Studies

- Kumin, L., & Bahr, D. C. (1999, June). Patterns of Feeding, Eating, and Drinking in Young Children with Down Syndrome with Oral Motor Concerns, *Down Syndrome Quarterly*, 4(2), 1-8. (30 subjects)
- Shriberg, L. D., Austin, D., Lewis, B., McSweeney, J. L., & Wilson, D. L. (1997). The speech disorders classification system (SDCS): Extensions and lifespan reference data. *Journal of Speech, Language, and Hearing Research*, 40, 723-740. (836 subjects, "collaborative research in several states," p. 726)

Project Example from Scaler Scott and Reardon-Reeves

ASDs and disfluencies: Helping SLPs in the schools with identification and treatment

- Step One: survey data regarding prevalence
 - Researcher role: oversee design, needs
 - Clinician role: administer surveys
- Step Two: analysis of speech patterns
 - Clinician role: collect samples
 - Researcher role: analyze samples

Project Example from Scaler Scott and Reardon-Reeves

ASDs and disfluencies: Helping SLPs in the schools with identification and treatment

- Step Three: training of school SLPs for identification and treatment
 - Researcher and clinician
 - Development of training based upon data

Project Example from Scaler Scott and Reardon-Reeves

ASDs and disfluencies: Helping SLPs in the schools with identification and treatment

- Step Four: training of school SLPs for identification and treatment (new district)
 - Survey SLPs regarding identification and treatment
 - Researcher: develop surveys (pre and post training)
 - Clinician: administer pre-training survey

Project Example from Scaler Scott and Reardon-Reeves

ASDs and disfluencies: Helping SLPs in the schools with identification and treatment

- Step Five: training of school SLPs for identification and treatment
 - Researcher and clinician: run training
- Step Six: gather and analyze post-training results
 - Clinician: re-administer surveys
 - Researcher: analyze results

Project Proposals from Bahr and Scaler Scott

- Comparison of feeding, vocal, and mouth development in typically developing breastfed vs. bottle fed infants (Bahr, et al.) **Potential Collaborators:** Suzanne Evans Morris, PhD, SLP, NDT; Catherine Watson Genna, BS, IBCLC; Debra Jervay-Pendergrass, PhD, CCC-SLP, NDT; Nina Ayd Johanson, MS, CCC-SLP; Peg Merrill, BS, IBCLC, RLC; Lisa M. Sandora, MA, CCC-SLP, IBCLC.
- The identification of childhood apraxia of speech (CAS) in young children with ASD (Scaler Scott, & Bahr)

Possible Roadblocks (based upon Bland et al. model, 2002, 2005)

- Individual
 - Gaps in knowledge and background between academic researchers and clinicians
 - Barriers to maintaining the relationship until study completion (e.g., job changes)
- Institutional/Leadership
 - Time Allocation for collaboration when both academic researchers and clinicians already have full schedules
 - Funding

Partnership, Training, and Coordination Can Decrease Roadblocks by:

- Individual--Institutional
 - Helping SLPs with active caseloads learn how to become involved in publishable, peer-reviewed, evidence-based research.
 - Matching academic researchers with SLPs who have active caseloads, corresponding with research interests.
 - Matching strengths in areas of promotion, administrative, follow through.

Partnership, Training, and Coordination Can Decrease Roadblocks by:

- Institutional/Leadership
 - Educating academic and clinician researchers re: funding opportunities.
 - Educating administrators re. value of diagnostic and treatment research to their specific programs.



Clinician Needs

- Academic researchers and appropriate others (e.g., ASHA) willing to train clinicians who want to participate in research projects
- Academic researchers willing to participate in projects with clinicians
- Academic researchers who have projects that are a “good fit” for the clinician and the clinician’s caseload
- Administrative support
- Funding



Academic Researcher Needs

- Clinicians who can commit to projects for a set period of time
- Clinicians interested in and willing to learn about peer-reviewed, evidence-based academic publication
- Clinicians (with caseloads) who are a “good fit” for the project
- Funding



Value of Model/Paradigm

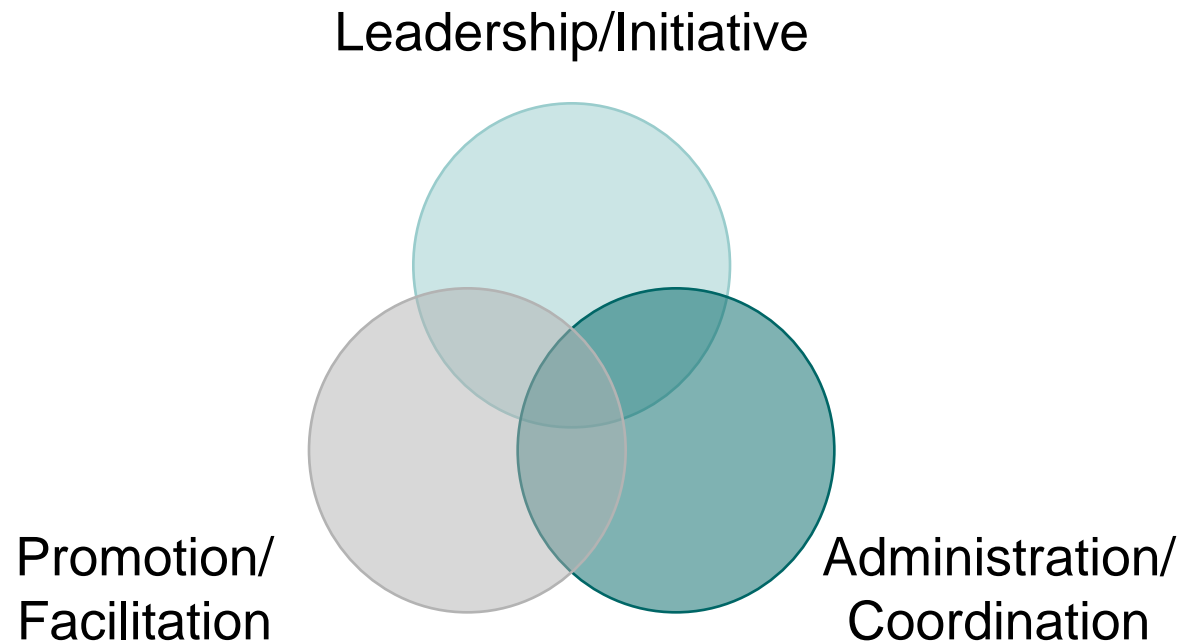
- Improved relationships between clinicians and academic researchers
- Clinicians and academic researchers learning something new and interesting from one another
- The critical need for group-design and other well-designed research in the field of SLP can be fulfilled
- Improved cohesion in the field of SLP



Task Force for Academic-Clinician Research Collaboration

- Objective 1: To increase clinician-researcher partnerships leading to the production of well-designed research studies
- Objective 2: To decrease roadblocks to clinician-researcher partnerships

The Next Steps





Could a website/study group be the answer?

(e.g., International Cluttering Association, Oral Motor Institute)

- To conduct interviews/focus groups/surveys and investigate the roadblocks to coordinated clinician/academic researcher collaboration
- To gather a list of clinicians and academic researchers who have similar interests and are a “good fit” for needed research projects
- To provide information for clinicians who want to learn about doing effective, publishable, peer-reviewed, evidence-based research
- To increase the number of group-design treatment studies in SLP
- To investigate and provide information regarding funding opportunities



Thoughts

- “In the measurement world, you set a goal and strive for it. In the universe of possibility, you set the context and let life unfold” (Zander & Zander, 2002).
- If you always do what you’ve done, you’ll always get what you’ve got (Bahr, today).

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