Show Notes - Episode #15
Great ideas in aphasia care programming:
In conversation with Dr. Liz Hoover

Ellen Bernstein-Ellis of California State University, East Bay interviews Dr. Elizabeth Hoover, a Clinical Associate Professor of Speech, Language and Hearing Sciences and the Clinical Director of the Aphasia Resource Center at Boston University. They discuss Dr. Hoover's work with aphasia groups at the Aphasia Resource Center at Boston University as well as the exciting research she's undertaking.

Elizabeth Hoover, Ph.D., CCC/SLP, BC-ANCDS, is a Clinical Associate Professor of Speech, Language and Hearing Sciences and the Clinical Director of the Aphasia Resource Center at Boston University. She holds board certification from the Academy of Neurologic Communication Disorders and Sciences (ANCDS). Liz has over 20 years of experience working with individuals with aphasia and other communication disorders across the continuum of care. She has contributed to numerous presentations and publications including topics on the effectiveness of intensive intervention for aphasia, and the effectiveness of group treatment for aphasia.

In today's episode, you will:

- Learn how to involve IPP elements in your aphasia program to address the increase in sedentary behavior and the need for nutritional counselling post stroke;
- Understand how to use the A-FROM to help develop and implement participation goals within an IPP framework;
- Gain an example of how to target specific verbs within a daily conversation group;
- Get an early glimpse into new research by Dr. Hoover and Dr. DeDe examining the impact of group size on outcomes for conversational group treatment.

Note: These show notes has been edited and condensed.

Ellen Bernstein-Ellis
As an opener, can you share some of the resources that Aphasia Access has developed to help all of us sort through the confusing and changing landscape of the Medicare compliance issue?

Dr. Elizabeth Hoover
I've been working along with Todd Von Deak and Ruth Fink in trying to help Aphasia Access navigate Medicare issues. There's actually a page on the top of the Aphasia Access website that provides the most recent updates and resources - including the "The Facts about Treating Medicare Beneficiaries" from ASHA and letters we've sent on behalf of Aphasia Access

soliciting help. As we learn more and develop plans, this page is the place for you to go to get that information. Of course, Aphasia Access will send out periodic emails and newsletters to members, too.

It has been a really valuable source of information for me as a clinician and as a supervisor at a University program. Thank you.

Let's discuss your program. What is the Aphasia Resource Center at Boston University?

The Aphasia Resource Center has been going on now for 11 years. We are a small center that's housed within our college of Rehabilitation Sciences at Boston University. We serve three purposes: provide community-based LPAA services to individuals with aphasia, a training environment for students as they learn to work with individuals with aphasia and their family members; and we also try to contribute to research in the field of aphasia. We have anywhere from 10 to 13 treatment groups that are offered on a weekly basis and we typically have about 75 clients that are enrolled each semester. So, I like to think that we're small but mighty. Of course, we also have our longstanding aphasia support group which my dear colleague, Jerry Kaplan, has been running for 27 years.

That's quite a remarkable history! BU has been doing some really wonderful work and I'm excited we can discuss some of that today.

I remember sitting in the audience at the 2012 Asha presentation, when you and Anne Carney were presenting your outcomes about the intensive comprehensive aphasia program (ICAP), which has since been published in 2016, and I just remember sitting there thinking this is the first time I've seen ICAP programming that really took an interprofessional approach. Can you share with us why you decided to incorporate group PT, group OT, and even nutritional sessions into your ICAP?

Anne and I would love to take credit and say that this was a really well-researched and well-planned endeavor, but we actually only had about four short weeks to ramp up ou**r** ICAP program. The decision to include interprofessional services was really philosophical and pragmatic. We're housed within the College of Health and Rehab Services and so we have a history of working with the College of Collaborative Learning and Practice. It just made sense to look to our stroke experts within the college and work together to do what we have been doing previously. If you've spent time working with folks with stroke-induced aphasia, then you realize the sequelae is broad - most survivors can benefit from expertise from many different disciplines. Including occupational therapy, physical therapy, and nutrition was practical for us because they're the resources we have in our college, but it also philosophically seemed like the right thing to do.

When we were planning the program with our colleagues, some physical therapy literature showed that individuals with aphasia are far more sedentary than their age-matched peers. So, including exercise and fitness with the goal of reducing sedentary behavior became a big focus. We had to be careful that, if we had folks sitting for an hour of speech and language intervention, we made them walk to the next activity. Each of our participants had a Fitbit as well, so we're charting their steps on a weekly basis and they had daily goals that they had to reach. I don't know how many of you have a Fitbit, but they've got annoying, but helpful, reminders to get up and move.

For me, a particularly novel aspect was the inclusion of nutrition because I think we all are used to interacting with PT and OT as part of the rehab team - but, nutrition is just so important. I even think back on the articles about applying adult learning principles to aphasia therapy by Michael Kimbarow and by Tammy Hopper and Audrey Holland and I was wondering if that played a role in your decision.

Absolutely. First and foremost, I think we learned with our participants in the group that they were not eating a heart healthy diet. They had histories of some obesity or high cholesterol and high blood pressure which we obviously understand are huge risk factors for stroke and subsequent strokes. We learned that our participants really hadn't been exposed to good nutrition counseling in their rehab. For those of us who have worked in hospitals, nutrition is often involved behind the scenes with diet progression, dysphagia, and calorie counts. But I don't think it gets the exposure that the rest of the rehab team does in terms of management and thinking of healthy choices moving forward.

There's this huge need for good nutrition education and then, of course, providing access to that information can be challenging for folks with aphasia. Once you've made the information aphasia-friendly and accessible, then there's also the complications of access at grocery stores and independence during meal preparation. Communication can obviously confound every layer of access. Our goal was to help provide the education and then to provide access to that practice. We work to make the information accessible from both an educational and an experiential perspective. We collaborated across the team to put this education program together and we practiced making food as a group with OT and SLP was part of the aphasia-friendly materials. We also had caregivers involved in trying to translate that back at home.

You talked about making all the learning environments within your ICAP aphasia-friendly. How did you optimize providing this supportive learning environment for the individual with aphasia with these interprofessional practitioners? Did you have special training sessions or were they just ongoing dialogues? What was most effective for you?

Good question. It was a lot of “learn as we go”. It certainly started with the whole team screening and evaluating the clients together so that we could fully understand their communication profiles and their goals. Some had goals to increase weight, others were to decrease weight. Understanding their comprehension abilities allowed us to make sure that the materials provided, the volume of that information we provided, and the technology we used was accessible for them. I think the collaboration team meeting and co-treatments were really critical in making sure that we kept the optimum level of challenge for the clients.

You’ve brought up goals a couple of times and you've mentioned that you use the A-FROM guidelines for setting client goals. Could you explain what the framework is and give some examples of how you used it?

Sure. For those who don't know, the A-FROM was developed by Dr. Aura Kagan, Dr. Nina Simmons-Mackie, and colleagues to help us think about outcomes in aphasia with this notion: if you don't know what you're trying to achieve, how will your intervention help you get there? The acronym from stands for Living with Aphasia: A Framework for Outcome Measurement. It has four overlapping circles which each contain an area related to living with aphasia - things like language and related impairments, communication and language environment, participation in life situations, and personal identity, attitudes, and feelings. This model grew from the WHO ICF model which is an international classification of functioning disability and health.

We used A-FROM at the beginning with our clients to try and understand what their goals were within each of these four areas. What was a participation goal for them? What specific about their language was preventing that access? When we first met our participants, we started by asking them to identify barriers to their participation goals and then we tried as a team to work together and to focus our intervention at every level of that continuum.

To give an example, we had one gentleman who wanted to be able to volunteer at the local library. So, across disciplines we were trying to think about what he needed to be able to do to achieve that. Endurance was an issue. Navigating public transportation had pain associated with his brace, so even in PT you've got pain management for the brace and tone issues in the ankle that are impairment-based, but that impacts his ability to get out into the community and maintain function in the community. Each of us, in our discipline, came to the table around this community-based goal to look at how we could work towards that. From a communication perspective, he needed to increase his comprehension and to be able to follow instructions for the volunteer position. He needed to be able to read book titles and understand the software, know where to stacks some of those books, and so on. So, we had specific linguistic goals but also being able to transfer those into this community with novel partners was an important focus. Generalizing those specific linguistic goals into participation at the community-level.

The success of this initial research really seemed to lead to your next project because you became very interested in how you might incorporate specifically linguistic treatment. I think you used Dr. Lisa Edmonds' VNeST program for the targeted use of verbs within a social conversation group. Can you describe why you decided to target specific verbs within the group treatment setting?

There's actually a bit of a theme that's developing and that is: Learn from your mistakes.

You know that the ICAP was a labor of love for all of those involved and obviously there are many great minds who contributed to the success of that program, but from a research perspective it was *incredibly* messy. Each participant had an individual set of goals which meant slightly different types of individual treatment across the cohort. By the time we got to the end of this program, we knew folks got better at the things they wanted to improve upon, but we couldn't really point to the mechanisms for that. Was it the intensity of the program? These folks were getting about 30 hours of combined treatment each week and we know intensity seems to make a difference in outcomes. It could have been the interprofessional combination in the program or it could be this idea of training across environments and across the continuum of participation.

So, my mentors said, "Well, Liz, do you have any idea of what might be the critical ingredient?" This notion of training explicitly for generalization was something that really resonated with me. I think we tend to do the kinds of intervention that are meaningful to us, too. So, that was the next step: We needed to look more closely at that specific aspects of the program. I really like VNEsT - an impairment-based treatment. So, we decided to take an evidence-based language intervention and look at it in comparison to a hybrid approach where you train both individual and naturalistic kinds of group conversation versus training the verbs alone in a group environment. This was an attempt to look at that question of the environment and the combination of environments as a mechanism for the outcome.

I know that our conversation groups are all over the map in terms of where one conversation might go - which is great because that is often a typical conversation! That's what you want to see happening. Could you describe what a group session might look like when you're doing this type of this hybrid version with the verbs?

The hybrid was actually 45 minutes of the VNeST followed by 45 minutes of the conversation-targeted treatment. The goal of all of the group treatments was definitely to try and train the use of these verbs. So, the group treatment had a beginning piece where priming the verb vocabulary might have taken a game format or some other kind of introduction to the word bank that we wanted them to use. That flowed very quickly (10-15 minutes) into more conversationally-based treatment. I would take a current events article and incorporate the targeted verbs into the text. We would read through the current event together with pictographic

supports and then use that as the prompt to start to talk about the event. As naturalistically as possible, we'd prompt the use of these verbs in this functional conversation about something that was happening in the country at the time. It's certainly more structured than some conversation treatments, but there was definitely an attempt to make sure it remained personally relevant and that it could go off on tangents of the participants' choosing. But, again, the individual goal to produce sentences and verbs was at the core of the group.

What did you learn from this comparison of treatment settings and approaches? What has been your takeaway?

The takeaway really is that there needs to be another study. This was a within-participants design, so each participant was trained on a specific set of verbs in individual sessions, a specific set of verbs in the group treatment. What we found is that there are changes in specific language skills: noun naming, verb naming, and sentence production for all the intervention environments. We also saw changes in functional communication and quality of life for all of the interventions as well. I think the take home message is that the data showed group intervention was as effective as the individual and the hybrid intervention. So, if you treat this, it seems to make a difference is the preliminary finding.

I do need to say the study was really small, so it's important not to overgeneralize the results. I would like to think that the data contributes to some of the literature supporting group treatment. I also wonder if that means that, in a bigger picture, we all have some choice in the interventions that we utilize and that perhaps we need to think carefully with our clients as we discuss what's best for them at various points in their recovery because I think it is possible to make meaningful language changes at the more traditional participation end of the treatment continuum.

What led you to your current effort to look at group size?

Well, so this one is not a within participants design. This is actually a randomised control trial, so it's the next step in looking at intervention in different environments. This project actually is a collaborative effort with Dr. Gayle Dede at Temple University. It was inspired by Dr. Nina Simmons Mackie's paper in 2014 where she did a review of the conversations treatments that are out there in our practice and I when I read this paper I was just struck by the vast variety in the way we administered these conversation treatments. There are so many different factors from the purpose of the group, to how many people are in the group, versus whether they are problems-solving or strategy-training… and we all just call it "conversation treatment" That's not a problem, per se, but I think as we try to move this body of work forward, we need to look carefully at the underpinnings. Why does it work? What are some of the factors? The way we're set up, there's so many different factors that are contributing to the outcomes that it is difficult to know what those critical ingredients are. This project looks to try and understand whether dosage - meaning the number of people in the conversation which leads to the potential amount

of practice you get in the conversation - influences the outcome in contrast to all of those wonderful psychosocial benefits and peer model benefits that you get from a larger sized group. We're in the middle of the study and we just did our first treatments round. And we're looking at the outcomes from thematically-based conversations that occur in dyads of individuals with aphasia versus larger groups of six to eight people with aphasia. Their prompts the same between the groups, the treatment stimuli are the same, and obviously the conversations are working very differently between the two groups.

Any chance you can share some preliminary results?

It's a little early. We just finished the post-treatment baselines in July. I've done a first pass on the statistics, but the data is not complete yet. But what I can say is the two treatment arms compared to the no treatment control group seemed to be showing a promising difference.

What were among the most valuable lessons you've learned as a leader or as a teacher that you haven't had a chance to share yet?

I would say that there's been a tremendous amount of learning. Lots and lots of lessons. But, I think what I always come back to is the fact that your client is really the most important thing to think about and that what you do in treatment is obviously centered around what they need for you to do. It's a partnership and your work will always be most relevant and will be the the best it can be when you remember to include your client in all the decision making.