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## Incorporating the Principles of Self- Management into Treatment of Dysarthria Associated with Parkinson’s Disease

Kathryn Yorkston, Ph.D.<sup>1</sup>, Carolyn Baylor, Ph.D., CCC-SLP<sup>1</sup>, and Deanna Britton, Ph.D., CCC-SLP<sup>2</sup>

<sup>1</sup>Department of Rehabilitation Medicine, University of Washington, Seattle, Washington;

<sup>2</sup>Department of Speech and Hearing Sciences, Northwest Clinic for Voice and Swallowing, Oregon Health and Sciences University, Portland State University, Portland, Oregon.

### Abstract

Although understanding patient perspectives on treatment is a major component of patient-centered care, little is known about patient perspectives related to dysarthria treatment in Parkinson’s disease (PD). This article attempts to explore the perspective of patients with dysarthria associated with PD by interviewing them before and after treatment. Treatment expectations and experiences are summarized along with a discussion of how patients are using the tools they learned once treatment was completed. Comments about treatment were generally positive and suggested increased awareness and improved speech loudness. However, areas for improvement were also identified including: (1) treatment was not addressing some communication problems that were of concern to patients; (2) therapy programs were not enjoyable; and (3) it was difficult to maintain gains after therapy ended. Principles of self-management are reviewed to address some of the shortcomings of current treatment approaches.

### Keywords

Dysarthria; Parkinson’s disease; intervention; qualitative methods

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Since 2001, when the Institute of Medicine suggested patient-centered care to be one of the key aims in quality health care, the extent to which interventions meet patients’ preferences, needs, and values has been considered an important indicator of health care outcomes.<sup>1</sup> Consideration of patients’ views on treatment is even more important in the context of chronic or degenerative conditions in which resolution of physical impairments is either very slow or not feasible at all. When patients must manage living with their conditions on a long-term basis, this management is going to intersect with the demands, constraints, resources, and preferences that shape individual patients’ daily lives. Parkinson’s disease (PD) is an example of just such a condition. Studies of patient preferences for the general medical care for PD have been summarized.<sup>2</sup> Participants in these studies suggest that health care for PD would be more patient centered if health care professionals provided more support for the emotional needs of individuals with PD, included people with PD more in

health-related decision-making, facilitated earlier referral to specialists knowledgeable about PD, and coordinated care better across different health care disciplines. Although these suggestions were made as to how to improve overall health care for people with PD, little is known about patient preferences regarding treatment for the dysarthria often associated with PD. Evidence exists for the efficacy of speech therapy to improve speech production,<sup>3</sup> but less is known about patient preferences for intervention targeting the communication disorders associated with PD.

Understanding patients' views on treatment might best begin with seeking understanding of the experience of living with the condition to appreciate the context in which decisions about treatment are made, preferences are expressed, and outcomes are judged. Understanding the impact of dysarthria on the lives of people with PD can help guide the content of speech treatment such that the treatment focuses on issues that patients view as important. The social and psychological impacts of dysarthria in people with PD have been recognized.<sup>4,5</sup> Speaking is associated with a range of emotions including frustration, embarrassment, and loss of the identity associated with voice. The extent of communication difficulties is not related in any simple way to demographic factors such as age, gender, or disease duration.<sup>6</sup> People with PD suggest that to understand the experience of living with communication changes in PD, the broader context of physical, emotional, and contextual factors needs to be considered.<sup>7,8</sup> They suggest that because of the cognitive and physical effort to communicate, as well as the social and environmental barriers to successful communication, people with PD often question whether or not the effort is worthwhile. Withdrawal and social isolation might occur if the effort to speak is not outweighed by the perceived benefits of communication.

Few studies explicitly ask patients and their families about treatment preferences. Such studies would provide guidelines to tailor services so that they are responsive to the needs of patients. The work of Miller and colleagues is a unique example of a study attempting to fill this gap.<sup>9</sup> They surveyed 168 people with PD in the United Kingdom regarding speech and swallowing therapy for PD. Respondents to this survey included a general sample of patients with PD irrespective of whether or not they reported communication problems or had received speech treatment. Most of their respondents (87%) felt that at least some aspect of communication had changed. Less than half (43%) had contact with speech pathology services. A range of issues were reported. Changes in speech or speech loudness were frequently cited. Other psychological and social consequences were also commonly reported, including avoidance of conversation, reduced confidence with communication, and a decrease in situations where they were willing to speak. Most found speech treatment helpful, including being taught exercises to help breathing and tips on how to speak slowly and clearly. Less favorable aspects of treatment were also reported, including being offered treatment too late, undergoing a course of treatment that was too brief or not intense enough, difficulty with carryover of strategies, and inadequate or absent intervention to address the broader range of cognitive, linguistic, and emotional issues related to communication.

If we are to move toward a patient-centered approach to treatment, we first need to continue our investigations into the perspectives of people with PD about current speech treatment practices. We then need to look for paradigms that might help us achieve intervention

approaches that more fully meet the needs of this patient population. This article attempts to extend our understanding of the perspectives of people with PD before and after speech treatment and then compares these research results with self-management paradigms to suggest how communication treatment for PD might be made more patient centered.

## PATIENT INTERVIEWS

Our research team is conducting a mixed-methods study to explore the impact of communication disorders on communicative participation. As part of that project, we interviewed people with PD before and after their participation in speech treatment. Intervention was not controlled as part of the study; instead participants received intervention in the community, and thus the interventions represent a “current standard of care.” A portion of the qualitative data regarding treatment experiences from 11 participants is summarized here.

All participants were adults age 18 and over with a prior diagnosis of PD and self-reported experience of speech changes. All spoke English, lived in the community, and passed a cognitive screening. All had expressed interest in or had begun the process of enrolling in treatment for their speech. Demographic characteristics were typical of dysarthria in PD with a mean age of 67 years and time postdiagnosis of 7 years. Most participants were men (81%), and most were either retired or working part-time (73%). All were married and lived with their spouse.

Semistructured interviews were conducted face-to-face prior to treatment and then 6 months later. In the first interview, among other questions, participants were asked about their expectations for treatment, and in the second, about their treatment experiences. The questions were broad and allowed participants to share information they felt was most critical, although examples of question probes included inviting participants to share what was most or least helpful about intervention, and advice they would have for speech-language pathologists (SLPs) or other health care providers involved in intervention for the communication disorder. Interviews were audio recorded, transcribed verbatim, and verified. Codes were developed from content emerging from the data in an iterative manner with multiple researchers reading and coding transcript segments, comparing their coding, and further refining the code dictionary. Once the code dictionary was complete, the transcripts were coded using the indexing software ([dedoose.com](http://dedoose.com)). The three major content areas are described next.

### Treatment Expectations

When asked about their expectations for treatment, participants’ comments reflected modest expectations, likely due to their knowledge that there was no cure for PD or the associated dysarthria. For example, one participant said, “I’m not sure what I’m going to get out of all those visits. I’m a little skeptical” (participant [P] 01). With that in mind, their goals and expectations focused on getting any improvement in speech that they could, learning how to manage the ongoing problems, and learning to live more successfully with the dysarthria. The types of improvements participants sought included trying to prevent or slow further deterioration of their speech, or to have even a small amount of improvement: “At least keep

my speech where it's at, but even hopefully get louder again" (P07). "It doesn't have to be perfect. I don't know if I'll ever be perfect again. I'd like to be. There's a goal but ... I'd like to see some improvement" (P03). Other participants spoke of hoping to learn strategies or ways to manage communication in the context of the speech problems: "Any strategies that I can use to get my speech through the situation. What do people that have successfully addressed the issue do?" (P13). Finally, some participants described goals that were not necessarily related to how their speech sounded, but instead related to how they felt about communication, with one participant stating a wish to be "... more comfortable with my speech ... regardless of how it sounds, I just want to be confident with it" (P06).

### Treatment Experiences and Their Impact

When asked to describe their experiences with speech treatment, most participants described learning exercises aimed at making their speech louder. This section will present a summary of how participants felt they benefited from intervention, followed by participants' opinions about the experience of going through the therapy program.

In terms of benefiting from speech therapy, opinions were mixed. Several participants felt that their speech had improved in loudness and intelligibility, largely because intervention had increased their awareness of their speech and that they could do something about it. "It's made me more aware, and I do make an effort to speak a little bit more loudly in situations. I think [it] helps my communication and keeps people from asking me, 'What did you say?'" (P01). "I'm more aware than I used to be that people have trouble understanding me, so I try to slow down and I try to talk louder (speaking in a loud voice), and I can talk loud!" (P04). "I think it's clearer and I'm more aware of it and more cognizant of it, so I think it helped. The therapy helped" (P03). For some, the desired goal of increased confidence and comfort was met: "I think it really helped me to just be more confident with my voice than what it used to be. Yeah, you just kind of make sure everything still works and sounds the same. And that feels good" (P07). Some also reported positive impacts in daily communication encounters. "I'm open now to my wife or my daughters telling me at times, just giving me a signal that I'm not talking loud ... I feel like I've been more actively involved in what's going on, not just sort of letting things go by" (P09). However, not all participants felt they had experienced meaningful improvements in their speech: "Well I think speech therapy did a lot of intensive training of the vocal cords, but I don't think it did much good" (P05). "I think the jury's still out" (P08). "Training's supposed to make it easier and it doesn't" (P03).

In addition to commenting on changes in their speech, participants had a variety of opinions about the experience of going through the therapy program. There were several aspects of the program that most participants did not like, primarily that the exercise routine was "boring": "It's more boring than it needs to be" (P04). "It seemed dumb to do these practice[s]" (P01). In contrast, they much more enjoyed the practice time related to more realistic conversation. "The part I liked best is the conversation part ... that's actually using speech and being heard in a meaningful sense. The trouble with *aah* is it doesn't mean anything" (P04). "It wasn't just doing the exercise. We also had group conversations during those sessions, and that was helpful" (P07). However, for the group activities to be successful, participants had to be held accountable for their speech or the value diminished:

“We let each other get off the hook on being loud ... after 5 minutes into a meeting, people aren’t projecting ... they are not coaching to do more” (P13).

Participants were motivated by the inter-personal interactions with clinicians (who were sometimes graduate student clinicians) and also appreciated the guidance and feedback from clinicians to challenge them to improve their speech. Clinicians were described as: “Good at reinforcing proper things” (P03). “The part I like best ... is the students and the people I’m working with. I look forward to seeing them. I don’t look forward to the aahing” (P11).

### Using the Tools

One of the most common trends in participants’ comments was their recognition that the speech therapy did not permanently change their speech, but instead gave them a way to try to manage it. A common term used for the techniques was *tool*: “Everybody must hope that it’s gonna be magic, and the fact is it isn’t, and it’s a *tool*” (P13). “The only way that it’s going to change for me is if I continue to use the *tools* that I learned there. Basically the *tool* is to speak up” (P08). “I can use these *tools* even for the down the road when, you know, I need more” (P07). “Be prepared to speak up ... like a boxer going into the ring, when the bell rings, he walks out knowing what to do” (P08). Participants mentioned other *tools* that they had added to help with their exercises: “I’ve got apps on my phone now ... gives me an idea about if I’m in the conversational level” (P06).

Participants clearly expressed their understanding that ongoing practice was necessary to continue gains they had experienced in therapy, but they said that keeping up with the practice on their own was difficult. “I took some time off after everything stopped and [that] was probably the stupidest thing I could’ve done because as quickly as I got turned on, I just found it easier to sort of slip back” (P09). The reasons around not continuing to practice were several, including feeling self-conscious, feeling overburdened, and questioning the value of the exercises. “If you’re doing it right and saying it loud enough, they can hear you all through the house and it’s embarrassing ... My grandchildren are around. What’s grandpa shouting at now?” (P04). “It puts quite a burden on people who already have it rough with just day to day walking and living with Parkinson’s” (P05).

Participants suggested that one way to improve intervention would be to not only give tools to the person with PD, but to also focus more on giving tools to those around them. Many suggested that family members should be more involved in speech treatment. Families need to know what is being done in treatment. For example, one participant when talking about his family advised, “Don’t say ‘Talk louder, you idiot,’ say, ‘Can you speak up louder?’ Give them some practical guidelines after they leave so they can be more of a support” (P03).

Participants also expressed that as helpful as the speech exercises were as a tool to help with their speech, they were not sufficient to address the breadth of the communication challenges they were experiencing. They expressed a desire for more tools. “The tool itself is not the end ... It’s a tool that gets you partway. But there’s another thing missing” (P13). “The-re’s more to me than my voice” (P04). One of the biggest gaps identified in therapy was the absence of any attention directed toward the impact of cognitive changes on communication. “For us with Parkinson’s, cognitive issues can be immense. And we only

brushed on them in the voice part” (P09). “Ask people about the cognitive parts. Are things changing, and help them know that they are, and help them with that. That’s a hard one ‘cause that affects my relationships with people” (P02).

In summary, participants had many positive comments about their speech therapy programs in terms of the exercises improving their awareness of their speech, and their ability to change their speech. However, they suggested that although the intervention experience was generally positive, largely due to good relationships with their clinicians, there were areas where they were not satisfied with treatment. These areas of dissatisfaction included a lack of attention to other concerning factors impacting communication (e.g., caregiver/family education; cognitive impairments), lack of enjoyment of therapy programs and/or exercises, and difficulty maintaining gains after therapy ended.

## **BUILDING A BETTER TOOLBOX**

The participants in this study suggested that their speech therapy had provided them with one good tool, but that their toolbox still felt incomplete. With reference to the old adage, they now had a really good hammer, but not every communication problem they experienced was necessarily a nail. Perhaps one way to approach this problem is to start with re-envisioning the toolbox, and then considering what tools go in it. For example, if SLPs consider the toolbox to consist of what might help clients produce more intelligible speech, the tools that they may consider to put in the toolbox will likely follow our traditions of dysarthria interventions that have largely been impairment/activity centered, focusing on the respiratory, laryngeal, velopharyngeal, and lingual components of speech production. Although physiologic approaches to intervention are beneficial and must not be abandoned, they are likely not sufficient if dysarthria, and the broader communication problems associated with PD, are viewed from the patient’s perspective. We may need to expand our view of intervention.

### **Applying the Concepts of Self- Management to Speech-Language Pathology**

One way to re-envision the toolbox is through the lens of self-management. Self-management is becoming a more common approach recommended for people with chronic conditions, and it emphasizes that each patient is an active participant in any treatment program. Although many references for self-management exist, the concise summary provided by Lorig and Holman will guide this discussion.<sup>10</sup> Self-management refocuses the consequences of a health condition away from being solely determined by the physiologic changes, instead suggesting that consequences of a condition are also shaped by other influences such as the patient’s psychological responses and environmental changes. With that perspective in mind, self-management of a condition expands to include not only the medical management of the underlying physical impairment, but also developing accommodations to allow meaningful participation in valued life roles, and also dealing with the emotional journey through a chronic illness. This section of the article will explore the concepts of self-management as laid out by Lorig and Homan, with accompanying examples of how we might apply these concepts to the management of communication disorders associated with PD.<sup>10</sup>



Self-management interventions begin with an individualized and detailed needs assessment from the perspective of the person living with the condition. The purpose of self-management programs is not to address issues that the clinician assumes should be addressed, but to help the client solve what he or she sees as the major concerns for his or her own life. Thus, assessment must include systematic ways to gather and document the client's perspective regarding problems, values, and preferences. Two examples of techniques for obtaining these perspectives include motivational interviewing techniques and methods such as goal attainment scaling in which the identification of goals and what constitutes meaningful progress toward those goals is calibrated for each individual client.<sup>11,12</sup> Participants in this study voiced their recommendations for this patient-centered approach: "Parkinson's is a really individualized disease ... No two of them are alike" (P04). "Every kind of therapy has to have a center to know the person 'cause that's the only thing that's really therapeutic. I don't care what you're wrapping it around—speech or physical" (P02).

Once patient-centered problems and goals have been identified, Lorig and Holman cite five core self-management skills that should be implemented. These include problem-solving, decision-making, resource utilization, forming partnerships with health care providers, and taking action.<sup>10</sup> Each of these will be illustrated with examples for people with communication disorders due to PD.

## PROBLEM-SOLVING

The first step of self-management is problem-solving. This does not necessarily mean that SLPs attempt to provide a solution to every communication challenge a client is experiencing. Instead, the focus is on helping clients to develop their own problem-solving skills. This involves developing habits around stepping back and defining the problem from multiple angles, developing a list of possible solutions, trying some of these options, and then evaluating results. For example, a client with PD (we will call him John), might identify that a meaningful communication problem in his life is that he feels that he never really has a chance to visit and get caught up with his adult sons during large family gatherings, which is typically the only time he sees his sons. He, along with family members, may initially identify the main problem being that John's voice is so quiet that others often do not hear his questions or comments, and therefore his sons and other family members might not converse with him about information that he wants to know. One possible solution would be that therapy to improve John's speech intelligibility would help his communication in that others would be able to understand him better, and he might be able to converse more easily and productively with his sons. Although that is a valid approach in keeping with our values of maximizing physiologic function as much as possible, other additional solutions present themselves in this situation, particularly if significant gains in speech intelligibility are not feasible. What other dynamics are occurring in this environment? A more detailed discussion reveals that family gatherings are often on football Sundays due to a strong family tradition of watching football, so the television is often on in the background. The adult sons are often distracted not only by the football game, but by caring for their own young children during the gatherings. Furthermore, some discussion with family members reveals that they assume that John can speak loudly enough to be heard when he really wants

to, given that they hear him do so at times. They do not appreciate the extent to which his ability to control his speech might vary throughout the day due to fatigue, PD medication cycles, or other variables. Maybe the sons have misinterpreted John's lack of asking about their lives as a lack of interest. Given these newly identified issues, a host of additional solutions to the problem present themselves. Maybe the family can be sure to come early before the football game or stay late to have specific time to visit with John with the television turned off. Maybe the family can be educated about the need to be aware of John's fluctuating speech and that they need to have their conversations during times he is strong and not expect him to be able to control his speech as much during the times of day when his medication cycle may be wearing down. Maybe, with better understanding that John really wants to keep in better touch with his family, his sons could find a way to stop by for short visits at times other than the big family gatherings to help John keep up with them. Maybe they could call or e-mail more often just to help John feel in touch with them.

In a self-management approach, the SLP does not necessarily need to guide and direct all of these options; but instead could provide coaching and guidance in how to analyze communication breakdowns, consider a wide range of contributing factors, and brainstorm possible solutions. SLPs could also promote a more active and systematic role in training of communication partners and assisting with other environmental modifications. For example, as quoted previously, one participant in this study had advice for tips to give to family members on how to productively cue the person with PD to talk more loudly: "Don't say, 'Talk louder, you idiot,' say, 'Can you speak up louder?' or give them some practical guidelines after they leave so they can be more of a support person" (P03).

## DECISION-MAKING

The second self-management skill summarized by Lorig and Holman is decision-making.<sup>10</sup> The key concept here is that to make good decisions about problems and possible solutions as described in the prior section, the client (and family) must have a good foundational knowledge about the condition and what to expect during its course. As an SLP, have you talked with your clients about why their speech is deteriorating with PD, and what physiologic and other factors may make speech fluctuate? Do they understand the impact of medications on speech? Have you validated that the cognitive and/or language challenges that they might be experiencing are also part of PD? Do they understand what makes some times of day better for communication than others? Do they know what to expect over time and how to prepare for future changes? Have you validated that the frustration, isolation, or other feelings around the communication changes are normal? Helping our clients and their families to become educated about the nature, extent, and experience of communication disorders associated with PD can better prepare them to manage the changes.

## RESOURCES

The third self-management skill is identifying and using varied resources. Would your client benefit from participating in a support group? Would they like to connect with a PD organization for more education? Would they like more literature to read to educate themselves, or maybe books to learn about other people's experiences? Are they interested



in getting connected with research? Lorig and Holman suggest that health care providers need to go beyond simply identifying that resources exist, but to actually assist clients in contacting and accessing these resources.<sup>10</sup> This is a wonderful and unique opportunity for SLPs to implement real-world communicative participation tasks into their intervention sessions. Contacting resources of any type certainly requires communicating with people, and what could be a better or more motivating task to practice in therapy than using that loud voice to make a real phone call to request information from a real support organization; or using those cognitive organization strategies to write a real e-mail to volunteer for a research study!

## RELATIONSHIPS WITH HEALTH CARE PROVIDERS

The fourth self-management strategy is forming effective relationships with health care providers who will be long-term partners in the journey with a chronic condition. In addition to checking ourselves to ensure that we are implementing patient-centered practices in terms of organizing our own interventions around our clients' individual preferences and values, SLPs are in a unique role to assist our clients in doing the same with their physicians and other health care providers. Research has suggested that people with communication disorders are a particularly vulnerable population in health care. The communication barriers they face can contribute to a higher risk of medical complications and errors, lower satisfaction with their health care, feeling excluded from participating in their health care decisions, and other negative experiences.<sup>13</sup> However, health care encounters, particularly typical out-patient medical visits, are usually predictable encounters for which patients can plan and prepare. SLPs can be very effective in helping their clients to plan for their visits to doctors and other providers by using speech pathology sessions to prepare brief materials that the client can use to inform a physician about how the client best communicates, prepare any augmentative communication materials that might help the client with specific vocabulary or concepts relevant to the health care visit, help the client formulate important questions in advance, and help the client process and organize information after a medical visit.<sup>14</sup> Working with clients on these real-life communication situations might enable them to continue the self-management process for subsequent medical visits.

## TAKING ACTION

The fifth and final self-management step is taking action. A key hallmark of this step is ensuring that any action plan is highly feasible. Clients should not be overwhelmed with a long list of homework tasks at the end of a therapy session. Action plans are likely to be more feasible if they consist of a small number of highly specific steps or actions that the client will take within the next week or two. For example, John, who struggled with connecting with his sons at large family gatherings might have an action plan that consists of two steps: (1) ask his sons to come early to the next Sunday football afternoon so that they can visit in a quiet room before the game starts; (2) practice his speech exercises once daily for 10 minutes so he is confident he can be loud during those conversations with his sons. In this last step of taking action, Lorig and Holman highlight what has been identified as a critical element to taking action successfully in self-management programs.<sup>10</sup> That element is self-efficacy, or the confidence one has in his or her own ability to accomplish the plan.<sup>15</sup>

## Self-Management and Self-Efficacy

A review of literature suggests that improvements that stem from self-management programs may be related primarily to clients' improved sense of control over their condition and how it impacts their lives, in other words, their improved self-efficacy.<sup>10</sup> Clinicians can measure their client's self-efficacy by asking them how confident they are that they can carry out a task. If clients suggest a low level of confidence that they can enact the plan, the plan should change. Self-efficacy can be improved through four elements: mastery of performance, modeling, interpretation of symptoms, and social persuasion.

## PERFORMANCE MASTERY

Mastering performance involves ensuring that the clients can perform the task or activity successfully. In our study, several participants pointed to one benefit of their speech therapy programs being that the exercises convinced them that they could speak differently because they were doing it in therapy and during practice times: "It gives me confidence with my voice" (P07). "The best part of it [therapy] is, it told me that I could talk louder" (P03). Participants said that the SLPs played an important role in ensuring that they pushed with their exercises to achieve a level of voice that they otherwise likely would not have: "You have somebody to either do it with or an instructor there that's kind of grading you, then you have to do it, put some effort into it" (P05). SLPs could take this one step further than the loudness exercises and incorporate these principles of performance mastery into real-life communication activities that clients want or need to do. Using therapy sessions to have clients make real phone calls to schedule real appointments or write real e-mails asking for information can demonstrate to clients that they can indeed successfully perform these tasks. Assisting clients to have conversations with their family members regarding how those family members can help with communication may demonstrate to clients that they can indeed recruit family to help them effectively. These experiences might help them to complete more of these varied communication activities out-side of therapy.

## FINDING MODELS

A second ingredient to bolster self-efficacy is modeling, or being provided examples of peers successfully completing target activities.<sup>10</sup> Participants in this study identified peer models as one of their motivations for therapy in that they wanted to learn "what people that have successfully addressed the issue do" (P13). Support groups and conversation practice groups can be two possible ways to introduce clients to peer models. In the absence of these options, SLPs can be a great resource sharing stories and examples of other clients (anonymously) and what they have tried and found successful for communication.

## REINTERPRETING SYMPTOMS

Lorig and Holman summarize the third ingredient to improve self-efficacy as helping clients to reinterpret their symptoms—to explore other possible contributing factors or reasons for an experience.<sup>10</sup> Continuing with the example of John from earlier, his communication break-downs on football Sundays could be attributed solely to his reduced speech intelligibility. Although that likely is a significant factor in the problem, defining the

breakdown as solely due to his speech intelligibility leaves the only possible route to improvement being to change his speech. That puts all the pressure on him. However, if the breakdowns are reinterpreted with a broader perspective on contributing factors, other sources of breakdown are identified: a noisy environment with the television on and many people talking; communication partners who are distracted and multitasking; communication partners who may not fully understand the nature of the speech problems John has and the limitations on his ability to control his speech; misinterpretation of John's lack of communication; and so forth. With this broader interpretation of contributing factors, there are many more possible routes to satisfactory solutions to his problem of feeling disconnected from his adult sons, as described previously. This view suggests that people with PD identify many variables as impacting their communication in daily activities.

## SOCIAL PERSUASION

Finally, self-efficacy can be improved through social persuasion, in essence that people are more likely to do what others around them are doing.<sup>10</sup> This element came out most strongly in our participants' discussion of group therapy programs. Participants generally liked the group practice sessions because they better represented real-life activities. However, they stressed the importance of holding each other accountable for the speech strategies for the sessions to truly be effective for speech practice: "We let each other get off the hook on being loud so instead of pushing ... after 5 minutes into a meeting, people aren't projecting, aren't doing, and ... we're not coaching to do more" (P13).

## CONCLUSION

In conclusion, the shift from SLPs viewing their toolbox as a speech improvement toolbox to a communication self-management toolbox greatly broadens the horizons as to what tools are appropriate to put in the box to help people with PD. This view is consistent with what our participants and others from the research literature tell us about the many different communication problems they have, and how those problems interact with other aspects of living with PD. Our participants appeared already attuned to the idea that what they get in speech therapy is a set of tools to work with, not a "magic cure." They understand that they will need to continue to apply their tools and to problem solve on a long-term basis. They are simply asking for more tools to work with, and a supportive environment to help them along the way: "What you need to do is encourage, encourage, encourage" (P10).

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**Learning Outcomes:**

As a result of this activity, the reader will be able to (1) discuss the perspective of people with Parkinson’s disease as they describe their experiences with speech treatment, and (2) implement strategies of self-management in intervention for dysarthria associated with Parkinson’s disease.

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