Why on Earth Would a Speech-Language Pathologist Be Treating Someone with a Brain Injury?

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An Excellent Question!

Research indicates that 80 to100% of individuals with a brain injury will have some form of communication disorder. This might strike you as a bit odd. Obviously, those with severe brain injuries have readily apparent communication difficulties. But what about all those other folks with brain injury who seem to talk just fine - why would you want or need to get a speech-language pathologist involved?

Justine observes speech-language pathologist Janet Watt working on writing strategies with ABI client Stephen Steepe.

Don't Speech Therapists Just Treat Lisps?

This question has probably crossed your mind on more than one occasion! Most people think of speech-language pathologists as treating lisps and stuttering, but the reality is that such pure "speech" disorders make up a very small percentage of what we actually do.

Speech-language pathologists are "communication" experts. We treat the impairments that lead to problems in speaking, listening, reading, writing and social interaction – all the components of communication.

Let's look at one aspect of communication, speaking, and see just what is involved. Clearly, your lips and tongue need to have good sensation and movement so that they form clear speech sounds. You also need to use the correct intonation and facial expression, because these features are crucial in conveying your true meaning. You need to be able to think of the right word in a split second. You also

need to be able to choose all the correct grammatical structures to express the desired concept completely. And if what you want to express requires more than one sentence (which is usually the case when we speak), you need to ensure that one sentence flows logically to the next. You need to make sure that when you say "he," you have previously identified who "he" is. You need to make sure that you use a sufficient level of detail (not too much, not too little), based on your conversation partner's needs. You need to be able to use abstract terms, like "He's not playing with a full deck" or "I drew a complete blank." I could go on and on describing all the subtle but crucial speech and language components involved in being an effective and efficient speaker.

Now, how about reading? To read this magazine article, you have to know that certain letters represent certain sounds. You need to understand the meaning of individual words, and you need to pick the correct meaning for the particular context (e.g., "note" has many different meanings depending on the linguistic context). You need to understand how grammar influences meaning. You need to link the meaning of one sentence with the meaning of the next sentence in order to figure out where the article is going. You need to be able to separate relevant from irrelevant detail. You need to be able to "read between the lines." You need to be able to compare what you're reading to your previous knowledge on the subject to help you learn from the article. And you then need to remember what you've read.

To effectively manage any communicative activity, speech-language pathologists need to be able to tease out the relative contributions of any speech, language and cognitive impairments. When someone is unable to remember conversations, is it because they didn't comprehend the linguistic information in the first place? Or did they comprehend it, but didn't store it well? Or did they comprehend it and store it, but were unable to retrieve it from their memory? Looking only at one process or another will not allow us to successfully rebuild that skill. Speech-language pathologists typically use the term "cognitive-communication" to reflect the complex interaction between speech, language and cognition that creates the myriad of communication disorders seen after brain injury.

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Shouldn't a Communication Disorder Be Obvious?

Some definitely are. But many are quite subtle. Someone might very easily be able to walk up to the counter at Tim Hortons and order a coffee. Could that same person explain his or her thoughts on the new health care premiums? Someone might have no problem reading an information pamphlet. Could that same person understand a letter explaining benefit decisions?

Communication requirements vary enormously from person to person and from task to task. You could have a completely normal conversation with a claimant and therefore assume his or her communication abilities are intact. But if you were to follow them around all day and observe their abilities in a variety of different contexts, you might get a very different picture. Throw in a little stress (as when a parent has to lecture a teenage daughter) or fatigue (like that of a student sitting at the dinner table after a full day of school and rehab), and the person might be unable to express his or her thoughts coherently. Make the topic of conversation more abstract, and you might find that the claimant doesn't have much to say any more – he or she just can't formulate thoughts into

coherent language fast enough. Ever noticed how quickly conversations move?

On the comprehension side of things, it might be fairly easy for someone to understand, "Go see your doctor for some medication." So the person sees the doctor and the doctor says, "We have two options. We can choose medication A, which is similar to what you've already been taking, but has drowsiness as quite a common side effect. Or we can choose medication B, which has fewer side effects but is quite expensive." Even a so-called "mild" impairment can make the process of comprehension next to impossible.

So Communication Is Complicated – But How Important Is It?

Think about your own job for a moment. Over the course of just one day, how many times do you need to

- read a therapist's report
- send an e-mail to your supervisor or a colleague
- discuss a case with a lawyer
- read and evaluate a treatment plan
- write an analysis for an upcoming FSCO arbitration

How many minutes in a day go by without your needing to speak, listen, read or write? In claims adjusting, as in every other skilled profession, communication is at the heart of what you do.

What if you were in school? Do you ever need to speak, listen, read or write in order to succeed academically? Of course you do. Brilliant individuals who have weak communication skills have a high failure rate in school – communication is that central to academic success.

So we know the ability to communicate is central to vocational and academic success. But what about your life outside of work or school? Again, think about how many times in a day you

- read a newspaper or magazine
- send e-mails to friends
- watch a movie
- listen to the radio
- politely ask your neighbours to turn down their music
- have a discussion with your spouse about finances
- help your children with their homework
- reflect back on your day

Many clients who have lost both a physical ability and a communicative ability report that they can return to many aspects of their former lives with a physical disability, but they can not if they have a communicative disability.

There is no such thing as a "standard" treatment protocol for brain injury, because there is no "standard" brain injury, and there is no "standard" human being.

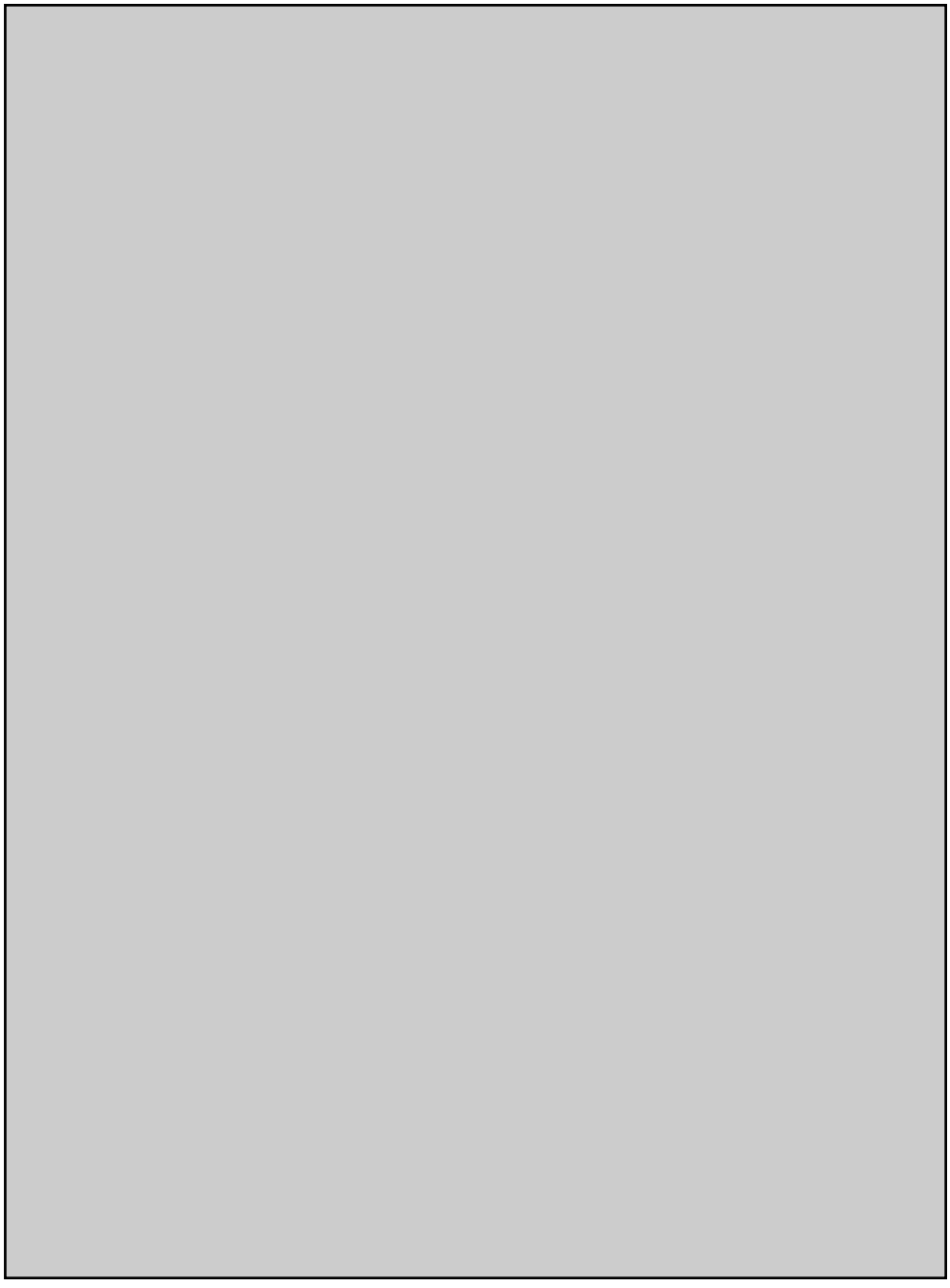
Speech-Language Pathology Plans Seem So Expensive – Why?

Part of the answer you already know from reading the above: speech-language pathologists deal with complicated processes in the brain. In contrast to many observable behaviours, cognitive-communication processes need to be tested, analyzed and inferred. For every observed communicative function, speech-language pathologists need to determine if the underlying disturbed process is linguistic, cognitive, pragmatic, motor or a combination of these. Each time this is determined, the therapist then needs to deduce which therapy activities and strategies are likely to target the impaired process, given the particular circumstances relevant to each individual. These circumstances are also highly variable, as is the individual's response to them. A broken limb is often easily diagnosed with an X-ray, and there isn't a whole lot of variability in the recovery process. A "broken brain" is a whole other ball of wax.

Along the same lines, speech-language pathologists cannot hope to correctly understand impaired processes and the resulting treatment protocols if they are not present throughout the entire session. We cannot set two clients up to work independently and then divide our time between the two. Unlike some forms of physical rehabilitation, where one therapist can treat 20 clients or more in a day, speech-language pathologists typically see 3 to 5 clients in a day. For every hour of time spent directly with a client, we typically spend another 30 minutes of research and analysis to make sure we're on the right track for each individual client. There is no such thing as a "standard" treatment protocol for brain injury, because there is no "standard" brain injury, and there is no "standard" human being. It would make therapy much easier if everyone's brains were the same and if they had identical brain injuries, identical jobs, identical interests, etc. But humans are incredibly diverse, and therapy must reflect this to be effective and meaningful.

The nature of physical abilities also allows for some home and workplace accommodation. Wheelchairs, grasping devices, braces, etc., are all relatively inexpensive; a full-time cognitive-communication partner is not. So our clients must work extremely hard to overcome or independently manage their communicative disabilities, because they cannot easily rely on their environment to compensate for them.

This level of skill development does not happen overnight. How long did it take you as a child to develop effective



communication skills? You probably learned the most in your first six years and then continued to refine those skills over the rest of your life. And you didn't have a damaged brain to work around. No, it doesn't have to take 20 years to rebuild impaired communication skills after brain injury. But it's not unreasonable to take two years, and often much longer, for successful rehabilitation.

The final complicating factor relates to timing. It is well demonstrated that the earlier cognitive-communication intervention starts, the faster and further therapy will proceed. However, many claimants have other more immediately pressing impairments they need to focus on first (e.g., mobility, self care). And because cognitive-communication impairments can make you feel stupid (even though communication and intelligence are two different things), claimants are often in denial or silently hoping the problems will go away on their own. It is not unusual for a claimant to finally seek input from a speech-language pathologist as long as one or two years after an accident.

Is It Worth Spending Money on Speech-Language Pathology?

As I'm a speech-language pathologist, I'm obviously biased! But I can support my opinion with research, and with the caveat that not all speech-language pathologists have expertise in brain injury.

Countless articles show the effectiveness of speech-language pathology intervention for brain injury (feel free to contact me if you'd like copies). But the one I want to share with you is the one I consider to have the least possible bias. By Cicerone *et al.* it was published in the *Archives of Physical Medicine and Rehabilitation* in December 2000. This journal is by no means a speech-language pathology

journal. Quite the contrary, as its name implies, it focuses on physical rehabilitation. It is also a well-respected journal that only prints studies that meet strict research criteria.

In this study, 171 articles were evaluated and categorized into one or more of seven areas of post-brain injury impairment: attention, visual perception, language and communication, memory, problem solving and executive functioning, multi-modal interventions, and comprehensive-holistic cognitive rehabilitation. The researchers sought to determine which of the seven categories had sufficient evidence to justify treatment in individuals with acquired brain injury.

Only two of the seven categories met the highest level of research requirements and were deemed to be Practice Standards:

- Language and Communication
- Memory

Another two, attention and executive functioning, met the next level of research requirements and were deemed to be Practice Guidelines.

When a journal that tends not to pay attention to speech-language pathology identifies Language and Communication as a Practice Standard in brain injury rehabilitation, it is worth paying attention.

Now, here is a caveat about speech-language pathologists. As in any profession, different people develop different skills and interests. If you call my clinic looking for a speech-language pathologist to treat a child who has autism, I will refer you to someone else. Our speech-language pathologists do not have a sufficient level of expertise in autism to take on this type of client. With dozens of new research studies coming out every week, it is hard enough to build expertise in one area, let alone in all areas of speech-language pathology practice. So try to ensure your claimants are seen by speech-language pathologists with expertise in the area of brain injury. Finding out how many years someone has been practising is important. Just as important is finding out what they've been doing in those years. Some questions to ask prospective speech therapists include the following:

- What percentage of your practice is in brain injury?
- What conferences have you attended in the last two years about brain injury?
- Do you have easy access to colleagues with expertise in brain injury?
- Have you presented any talks or written any articles about brain injury?
- Please describe some innovative therapy practices you have developed for clients with brain injury: what was the starting point and what was the outcome?

So yes, it is worthwhile to spend money on speech-language pathologists with expertise in brain injury.

Thank You for Your Time!

You have persevered through a long article on a topic that you may only need to know about occasionally (fortunately, not everyone injured in a motor vehicle accident sustains a brain injury). Thank you for taking the time to read this! With all the different insurance, medical and legal topics that you need to be experts in, I am thrilled that you chose to give some of your time to learning about speech-language pathology. If you have any questions or simply want to run something by me, feel free to e-mail me at justine.hamilton@learcomm.ca.
I'll be happy to help out in any way I can!

Justine Lear Hamilton, M.Cl.Sc., M.B.A..Throughout her career as a speech-language pathologist, Justine has worked diligently toward developing innovative and effective assessment and treatment ideas. She has co-authored three major initiatives: The Sperry-Lear Social Disability Scales, The Self Assessment of Communication Skills and Therapy in a Box. Speech-language pathologists from around the world now seek out these products for use in their daily practices. Justine has spoken at conferences and workshops across Canada and in Australia, and has written about assessment and treatment issues in provincial and national publications. She received the 2001 Contribution of the Year award for her volunteer work for the Ontario Association of Speech-Language Pathologists and Audiologists. Justine is the co-owner of Lear Communication, a private speech-language pathology practice with clinics in Dundas and Kitchener.

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