NEW DIRECTIONS

A NEWSLETTER FOR INDIVIDUALS AND FAMILIES WHO HAVE EXPERIENCED BRAIN INJURY

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Social Communication Abilities Following TBI:
Why are they important and how are they measured?

Having close relationships with others is a very important part of life for most people. Friendships, family relationships, and romantic relationships are a major part of what is considered to be a good "quality of life." Unfortunately, feeling alone has been reported as a large problem for many people after a traumatic brain injury (TBI). Research studies have shown that persons with TBI often have fewer people in their social networks (friends, family, acquaintances, etc.) than they did before their injury. Also, many people have reported losing friendships after their injury. Loneliness is often reported as the biggest problem faced by individuals with brain injury.

Changes in social communication skills after traumatic brain injury are fairly common. Social communication abilities are verbal (what is said) and non-verbal (how it is said) communication that happens in social situations. Changes in social communication skills after injury can be small or large. These changes can include things like: problems staying on topic in conversation, having trouble starting conversations, losing track of the conversation, having problems with word-finding, or being overtalkative. Sometimes, problems can be very disruptive, like making overly familiar or inappropriate comments or being insensitive to others' feelings. Problems with social communication abilities have been shown to add to social loneliness after brain injury. Social communication problems can also affect the ability to get and keep a job.

Given the importance of social communication abilities, it is not too surprising that TBI rehabilitation programs usually include some focus on improving social skills. While social skills are generally seen as an important area of rehabilitation for persons with TBI, we have not been able to come up with a good way to study these social communication abilities. For the past 2 years, Dr. Margaret Struchen and colleagues have been conducting research at the Brain Injury Research Center (BIRC) of TIRR that is focused on developing better ways to measure social communication abilities. This 3-year project is funded by the National Institute on Disability and Rehabilitation Research (NIDRR), U.S. Department of Education.

One of the major goals of this research project is to help find better ways of measuring social communication skills for people with brain injury. Having good tools to measure an ability, like social communication, is very important. Measurement tools can help us to understand both an individual's social communication strengths and weaknesses. Knowing strengths and weaknesses can help focus and improve treatments. Having good tests of social communication also gives us a way to measure change over time. This can help researchers and clinicians determine if a particular type of treatment is useful. It can also help persons with TBI see the changes they are making.

In this research project, social communication tests include measures of receiving, processing, and sending skills. ***Receiving skills*** include the ability to understand facial expressions, voice tone, and social situations. These have to do with the ability to understand social communication information from others and from the situation. ***Processing skills*** include the ability to come up with different responses that could be made in social situations and selecting the best response. ***Sending skills*** include the ability to deliver the response to others using both verbal and nonverbal communication.

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Social Communication Abilities Following TBI

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There are many ways that researchers try to show that a given test (or tests) may be useful. One way is to have individuals take the new tests and compare their scores on the new test with what they did on other tests that have already been shown to measure that ability. For example, in our study participants take several "tests" of social communication, and their performance on these tests is compared with a questionnaire that has been shown to measure communication abilities. If scores on these new tests are like the scores on this questionnaire, it would give some proof that the new tests also measure communication abilities. Another way that a test can be shown as useful for finding communication strengths and weaknesses in persons with TBI is to compare the performances of persons with TBI with those of persons who do not have brain injuries. In the study at BIRC, for every person with TBI who completes the tests, a non-injured person of the same age, gender, and educational level also takes the tests. A comparison of these groups shows the researchers if a certain test is able to see changes in social communication that are likely due to TBI.

In addition to looking at how well these tests measure social communication abilities, the researchers are interested in finding out if how a person does on these social communication tests is related to an individual's social performance and productivity level. If good performance on these tests is related to good social and employment outcomes, and poor performance on these tests is related to poor social and employment outcomes, the test would be helpful for predicting outcomes. Researchers are also looking at the relationship between social communication performance on these tests and emotional functioning for the person with TBI and for their close family member/friend. Finally, the relationship between performance on the social communication tests and problem-solving abilities is also being studied.

At this point in the study, over 70 individuals with brain injury, over 50 family members, and approximately 35 non-injured individuals have participated in the project. For those of you who have participated in this research, we would like to express our sincere appreciation. Your time and efforts are invaluable to the success of the project. In future editions of New Directions, we will share with you some of the results of this project. In this issue, some early findings are presented. ND

Brain Injury Research Center Announces New Research Grant

The Brain Injury Research Center is happy to announce that a new research grant has been funded for the center: "Cost Effectiveness of Rehabilitation following Traumatic Brain Injury." The Principal Investigator for this Field-Initiated grant is Dr. Walter High. The grant is funded by the National Institute on Disability and Rehabilitation Research (NIDRR), which is part of the Department of Education of the U.S. Government.

The purpose of this grant is to answer two main questions:
1) Is rehabilitation following traumatic brain injury (TBI) effective?
2) Is it worth the cost?
These questions are becoming more and more important. The competition for health care dollars has become increasingly intense. Being able to show that rehabilitation is effective and worth the cost will be important to continue having third-party payers (health insurance, Medicare, etc.) cover such services.

The new study will look at two groups of individuals with traumatic brain injury at one-year after injury. One group will be persons that did not receive comprehensive brain injury rehabilitation services. The other group will be persons who did receive rehabilitation. One goal of the study will be to look at the total costs for services the persons with TBI receive. Another goal is to look at the costs associated with not being able to work. The differences between the healthcare costs and work-related costs will be compared between the two groups. This will be compared to the actual payments of rehabilitation services that were made.

The Center looks forward to this exciting and important new project! As the project continues, we will update you on the study results. ***Congratulations Dr. High!***

Listening: Your Most Important Communication Skill

Listening is the most used communication skill. Being a good listener is key to being a good communicator. In order to be able to talk with others well, you must be sure that you clearly understand what others are saying to you. Listening is an important part of having good relationships with others. It is also important for success in work or school.

There are many factors that affect a person's listening skills. Things like your interests, your mood, and how tired you are can affect how well you listen. After a brain injury, some changes can make it more difficult to be a good listener.

- Paying attention is often a problem for people after a brain injury. Trying to listen to a long speech or listening to 2 or more people talking may be more difficult if you have trouble focusing your attention.

- Sometimes attention problems can mean that you might be more easily distracted. Things like background noise might distract you from a conversation that you are trying to listen to.

- Some people find it is more difficult to wait their turn in conversation and may tend to interrupt others when they are speaking.

How to be an active listener

There are many things that you can work on to improve your listening skills. Remember, good listening skills are vital to being a good communicator. Here are some tips to help you improve your listening skills:

1. **Stop talking.** You can't be a good listener when you are talking. You will miss the message. Be sure to stop talking when others are speaking.

2. **Show the speaker you are interested and want to hear what they have to say.** Do this by looking at the speaker, and by giving verbal and nonverbal cues that you are listening to them. Verbal cues include things like saying "Uh huh", "I see", "Yes", etc. Nonverbal cues include things like nodding your head.

3. **Remove distractions.** If you are having a difficult time paying attention, reduce other sources of distraction. For example, turning off the television or the radio when having a conversation can help you be a better listener. Avoid things like flipping through your mail, doodling, or looking at your computer screen when others are talking to you. You may need to close the door or go to a quieter area if you are having trouble paying attention.

4. **Ask questions.** Ask the speaker to repeat or explain statements that you have difficulty understanding. This will help you avoid misunderstandings. Say things like, "I didn't quite catch that" or "I missed the last thing you said, would you mind repeating it for me."

5. **Summarize.** When a message is important for you to remember, you may want to summarize or repeat what's been said in your own words. That way, the speaker can let you know if you've understood their message. ND

Welcome New Post-Doctoral Fellow: Dr. DeLisa West

We at the Brain Injury Research Center are very excited to welcome our new Post-Doctoral Fellow, DeLisa West, Ph.D., who is joining our staff on September 1, 2003. Dr. West completed her doctoral studies in Clinical Psychology at the California School of Professional Psychology - Alameda campus, with an emphasis on multicultural issues and community psychology. Her dissertation research investigated the developmental process of African-American grandparents and transmission of values to other generations. Dr. West completed her Master's degree in Clinical Psychology at the University of the District of Columbia. She completed an Internship in Clinical Psychology at the Jerry L. Pettis Memorial Veterans Medical Center in Loma Linda, California. Dr. West recently completed her first year of Post-Doctoral Fellowship with Dr. George Ringholz in the Department of Neurology at Baylor College of Medicine. Dr. West will be participating in the RRTC's research projects, and will lend her expertise to a variety of ongoing studies. ***Welcome Dr. West!***

State-of-the-Science in TBI Conference Held in Washington, DC, September 4-5, 2003

On September 4 & 5, 2003, our Houston, Texas Rehabilitation Research and Training Center (RRTC) held a conference entitled State-of-the-Science on Rehabilitation Interventions following Traumatic Brain Injury (TBI). The conference was held in Washington, DC and was sponsored by grant funds to our RRTC from the National Institute for Disability and Rehabilitation Research (NIDRR).

The purpose of the conference was to present results that are known at this time about research in TBI rehabilitation interventions (the state-of-the-science), to identify gaps in knowledge, and to recommend future research priorities. The conference was attended by people from different "communities": rehabilitation researchers, scientists and clinicians; individuals with TBI and their families; and policy makers and funders of research.

The content was divided into five sections: An overview of rehabilitation and its effectiveness, Rehabilitation of specific cognitive impairments, Treatment of other factors impacting outcome, Rehabilitation with specific populations, and Medical interventions. Twenty-two formal presentations were made and each presenter identified ideas for future research. In addition, there were focused discussion groups to assist in combining all the recommendations. The results are not surprising since the field of TBI research is such a new one.

There are many gaps in the scientific knowledge that we have and much of what we are doing is based on weak science and what clinicians have observed works with their individual patients. For brain injury research to advance considerably, future research must be designed in a very scientific manner with patients in enough numbers for us to be sure that the results can be generalized from a clinical setting to the community.

The conference presentations and recommendations will be published in a book to be published by Oxford Press in 2004. ND

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