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RESEARCH UPDATE:

Avoiding Problems on the Road to Recovery after a "Mild" Traumatic Brain Injury

n a previous issue of *New* Directions, we talked about Lmild traumatic brain injury (TBI). A traumatic brain injury occurs when a blow to the head causes problems with how the brain normally works. Losing consciousness or feeling "dazed and out of it" are both signs that the brain's normal functioning has been disrupted. When a person experiences a brief loss of consciousness or has no loss of consciousness but experiences a period of confusion following a blow to the head, this is considered to be a mild TBI.After a mild TBI, many people have some problems or "symptoms." These symptoms can be physical problems (like headaches or dizziness), thinking problems (like having problems with concentration), or emotional problems (like feeling stressed or depressed). Some people may have only one symptom, others might have a few or many symptoms, and some people may not notice any symptoms at all. These symptoms tend to get better over time. Most people who have a single mild TBI will have a nearly complete functional recovery. That is, they will have nearly no noticeable symptoms a few days, weeks, or months after injury. Also, they will have virtually no problems with their normal daily activities. The road to recovery in these cases is relatively smooth. How-

ever, there are a number of people who do not seem to recover fully from such injuries. These people experience persisting problems such as poor concentration, dizziness, and headaches. The reasons for their persisting problems are complex and are not well understood.

Understanding the Factors Involved in Outcome after Mild TBI

The Rehabilitation Research and Training Center (RRTC) on Rehabilitation Interventions Following Traumatic Brain Injury at TIRR in Houston is just finishing a study on mild TBI. This study looks at risk factors for poor outcome following mild traumatic brain injury. The information for this study has been collected from over 250 persons with mild TBI. All of these individuals were treated at the Emergency Department of a Level 1 Trauma Center. About one week after their injuries, these individuals completed many tests and questionnaires. The information gathered included a large number of possible risk factors. Some factors had to do with medical information about the injury. Some factors had to do with performance on tests of attention and memory. Some factors had to do with emotional functioning and personality. Other factors were related to environmental supports, like family functioning and financial resources.

Then, the same individuals were contacted 3 months after their injury to give information about how they were doing at that time. They were asked to list any symptoms they were experiencing, to describe their overall general health, to describe their emotional health and functioning, and to let us know if they were able to return to their regular activities (like work, social life, etc.).

Now, the researchers of the RRTC are just beginning to analyze the data. All of the factors collected soon after injury will be looked at to predict outcome at 3 months after injury. The researchers are also looking to see whether different factors are more important for persons with "uncomplicated" versus "complicated" mild TBI. This distinction has to do with whether or not medical testing (CT scan or MRI of the brain) shows evidence of the injury. Those with "uncomplicated" mild TBI have no abnormal findings on brain imaging. Those with a "complicated" mild TBI show abnormal findings on brain imaging.

Results of this study will be presented in a future issue of New Directions. It is hoped that this study will help tell us why

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some persons seem to recover more fully than others do. Understanding what factors contribute to good and poor outcomes after mild TBI can help us develop treatments. These treatments may reduce the impact of the injury. The goal is to develop interventions that can facilitate recovery after "mild" TBI.

Testing Treatments aimed at Prevention of Poor Outcome after Mild TBI

We know from research done in the past that knowing about mild brain injury is an important factor in an individual's recovery. Knowing what to expect after a mild TBI can make a big difference in how a person thinks about their recovery. When a person knows what to expect, they are usually better equipped to cope with problems that are faced. One can plan ahead to avoid having symptoms interfere with one's daily routine. Knowing what kinds of problems are "normal" and what recovery is usually like can prevent a person from "thinking the worst." Lack of information (or misinformation) about mild TBI can play a role in the development of poor outcomes after injury. Sometimes this can lead to depression, anxiety, and stress because people can start "thinking the worst" about their symptoms.

Researchers at the RRTC on Rehabilitation Interventions in Traumatic Brain Injury at TIRR in Houston are now getting ready to start testing out several treatments for persons with mild TBI. These treatments are aimed at providing help and information early on after injury. The treatments are designed with a focus on prevention and education. These treatments will be given to persons with mild TBI before problems have had a chance to become persistent. That is, the goal is to avoid the bumps on the road to recovery. One set of interventions will be tested on persons with "uncomplicated" mild TBI and another set of interventions will be tested on persons with "complicated" mild TBI. Over the next three years, the investigators of the RRTC will be testing these treatments to see if can we prevent poor outcomes from happening and to speed recovery.

- The following is a list of some of the goals of the planned treatments:
- provide education about what to expect after a mild brain injury to persons with mild TBI and their families
- provide some "tools" to help those with mild TBI cope with any thinking problems they are having.
- provide "tools" for managing stress and preventing depression and anxiety
- assist persons with mild TBI in planning to resume their normal daily activities.

The National Database of Educational Resources on Traumatic Brain Injury

Looking for videotapes or written information on brain injury but finding it hard to know where to go? The National Database of Educational Resources on Traumatic Brain Injury is available to help you. The database can be found on the world wide web at www.braininjuryresearch.org or if you do not have access to the internet you may call and request a FREE database search on two subject areas of your choice. The phone number is 713-797-5947.

Traumatic Brain Injury Registry

The Texas Traumatic Brain Injury Advisory Council has as one of its goals the provision of information and education to persons with TBI, their family members, and interested professionals. The information they provide includes education about TBI, as well as supports and services that are available for persons with TBI and their families. In order to meet this goal, it is important for the Advisory Council to have the names and addresses of people who could benefit from receiving information. If you live in Texas, you should receive a brochure from the Texas Advisory Council in this newsletter. Please read it and, if you are interested in receiving information from the Advisory Council, complete the form and mail it in. If you do not live in Texas, you will not get one of these inserts in your newsletter. However, your state may have a similar organization that keeps a registry. You could contact your state board of health or other state agency to see if you can get any information. If you have a state Brain Injury Association, they would also be a source of information.

You Might Want to Pay Attention to This

Problems with attention are one of the most common complaints after a mild TBI. Many people complain that they have trouble concentrating on tasks, are distracted when doing something, are forgetful, and have difficulty doing more than one thing at a time. Because of this, people might take longer to complete tasks or projects, may have difficulty concentrating on tasks in noisy environments, and may forget what they were about to say or do. All of these problems can be due to problems with attention.

Attention problems are common in everyday life. Everyone experiences times when they lose their train of thought, have a lapse in concentration while driving, forget something they intended to do, or get distracted by something around them when working on something else. People with a mild TBI may experience these problems more often than other people do. Problems with attention are usually worse soon after the injury, and then get better over time.

What can I do to make my attention better?

Problems with attention will likely get better over time after a mild TBI. However, these ideas may help you to reduce the impact of any attention or concentration problems you are experiencing now.

■ *Reduce Distractions:* When you are in the middle of working on something important it will be best to remove any-thing that may distract you from working. For example, you should turn off radios, television, and loud machinery when you are not using them and need to concentrate on something else. Close the curtains, a door, or even your eyes if you need to. If you can't avoid noise, you may want to try using earplugs.

■ Avoid Crowds: Sometimes being around too many people at once can be overwhelming, which may lead to distraction and difficulty focusing your attention. When around big crowds, you may feel like you can't concentrate on what someone is saying to you or you may miss important information that you need, like the right street sign etc. If this is a problem for you, then it may be best to shop and drive on the off-hours and in smaller stores. It may be best to take a longer route if it involves less busy streets. Visit with people in small numbers. If you must (or want to) be in a crowd, consider taking someone with you to help you if necessary.

■ Avoid Interruptions: If you have something important to do then you need to find a time and place where you are not likely to be interrupted. You may want to unplug the phone or let the answering machine get your calls. Put up a "do not disturb" sign to let people know not to bother you. Ask others not to interrupt you when you are doing something that requires concentration (this can include cooking, driving, paying bills, etc). Do not try to do two things at once.

■ Break tasks into smaller units: If you are having problems paying attention it is best to handle small projects one at a time. So you should not try to watch TV while cooking, or work on the computer at work while talking on the phone. It might also mean taking a big project and breaking it into smaller chunks. For example, when planning a big dinner, make things separately rather than cooking all the dishes at the same time.

■ *Get enough sleep:* Our minds work better when they are rested. You probably need more sleep after a head injury than you did before, just like you may need more sleep to get over a cold. Be sure to get enough sleep, including a nap if necessary. If you have a persistent problem getting to sleep or staying asleep, talk to your doctor about it.

■ *Get some exercise:* We all know that our body works better when it is in good physical shape, but did you know that exercise can make your brain work better too? Try to get some exercise, even if it's just walking around the neighborhood. Exercise can help your attention, as well as your mood and ability to sleep. ■ Watch out for fatigue and frustration/ Take a break: How many of you get annoved or frustrated when you can't get something to work right? That feeling of frustration can cause problems with our attention. As soon as you feel yourself getting frustrated, overwhelmed, or tired, take a break. The sooner you take a break when this happens, the faster that you will be able to get back to what you were doing. If you are someone who is used to pushing yourself to get a job done, you may have a habit that worked well for you before but does not work so well for you now. If you push yourself too hard now, you are more likely to push yourself into frustration and confusion. Take a break instead. This is NOT an excuse to be lazy. You need to be persistent and keep coming back to what you were working on, but you also need breaks to stay efficient.

■ Ask for help: This last idea may seem the simplest but may be the most difficult for some people. Tell those that you trust about your problems (or show them this article). Ask them to help you remember to do the things written here. When around others who are not as close to you, remind yourself that it's OK to ask someone to turn off a radio, or go to a quieter place to talk, or to wait a few minutes while you take a break.

Remember these important points:

- Attention problems are common and normal after a mild TBI. Some people do not have problems with attention, but others do. Having attention problems does not mean that you are "crazy" or that something terrible is wrong with you.
- Attention problems get better over time.
- If you worry about these problems they may seem worse to you.
- There are things you can do to make these problems less noticeable.

Innovations in the Treatment of Traumatic Brain Injury

September 20, 2002 Baylor College of Medicine Houston, Texas

The NIDRR-funded Rehabilitation Research and Training Center and the Houston area Traumatic Brain Injury (TBI) Network (a group of professionals and consumers devoted to improving the quality of life of persons with TBI and their families) will be co-sponsoring a seminar to highlight research on interventions for traumatic brain injury. The following topics will be addressed:

- Risk Factors for Poor Outcome Following Mild TBI (Margaret Struchen, Ph.D. and Walter High, Ph.D.)
- Cognitive-Behavioral Treatment for Persons With Mild TBI (Margaret Struchen, Ph.D.)
- A Community-Based Intervention for Family Members of Persons With TBI (Angelle Sander, Ph.D.)
- Interventions Following Pediatric TBI (Julie Landis, Ph.D., Gerri Hanten, Ph.D., and Harvey Levin, Ph.D.)

The seminar will take place from 11:30 to 4:30 on the 1st floor of Baylor College of Medicine, Classroom M-112. There is no fee for attendance. Lunch will be provided. To register, please phone Nancy Smith at 713-383-5655.

20th Annual BIATx State Conference "Innovations"

August 22nd – 24th, 2002 Omni Austin Hotel Southpark Austin, Texas

The Brain Injury Association of Texas (BIATx) is proud to present the 20th Annual State Conference "INNOVATIONS", co-sponsored by the TX Traumatic Brain Injury Advisory Council (TBIAC) and the Brain Injury Research Center at The Institute for Rehabilitation and Research (TIRR).

Celebrate 20 years of providing information and support to brain injury survivors, families, and professionals. Come Thursday evening for a "Build your own ice cream sundae" social event, and view artwork by survivors throughout the conference.

For more information go to <u>www.biatx.org</u> on the web or call (512) 326-1212.

Rehabilitation Research and Training Center on Rehabilitation Interventions in Traumatic Brain Injury TIRR (The Institute for Rehabilitation and Research) Division of Education, B-107 1333 Moursund Houston, TX 77030-3405 (713) 797-5971, FAX (713) 797-5982 e-mail terrih@bcm.tmc.edu www.braininjuryresearch.org

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