

Bill's Last Hope

Bill Svihla is a CPA. He's also an accounting professor at Indiana State University in Terre Haute. In the fall of 2007, Bill was involved in a motor cycle accident that, even though he was wearing a helmet, left him with a traumatic brain injury (TBI). After time in an acute care hospital, Bill went home since all of the normal tests indicated he could walk, talk and carry on a conversation.

As is typically the case, these tests don't measure emotional issues caused by the changes in a TBI patient's ability to deal with day to day issues. As Bill tells it, he knew something was amiss when it took him most of an entire day to compose an email. He grew

more and more depressed and frustrated and his wife Terri felt more and more concerned and helpless. The situation was dreadful enough that at one point, Bill started to plan his own suicide. Luckily, Bill became aware of the nationally known Brain Injury Coping Skills group conducted at RHI by Dr. Samantha Backhaus. BICS is a twelve session program and is the first in the nation to in-



Dr. Samantha Backhaus

volve both the patient and the caregiver. This program, started through RHI Foundation funds donated to the Dr. Lisa Thompson Center for Family Education at RHI, received a grant from the State of Indiana and won Dr. Backhaus the 2009 Young Investigator of the Year award from the American Congress of Rehabilitation Medicine.

Most importantly, as Terri Svihla says, the BICS program "saved Bill's life and we don't know what we would've done without it."

Rescuing Patients and Families

Rehabilitation and recovery after brain injury can be delayed by distress and impaired coping among these patients and their caregivers. A pilot study conducted by **Dr. Samantha Backhaus PhD** indicated that group treatment (including education about brain injury and its effects, teaching of stress management skills, and supportive psychotherapy) to improve coping skills after brain injury dramatically increased *perceived self-efficacy* for treatment participants. Perceived self-efficacy is a person's beliefs about their ability to have influence over events that affect their lives. Preliminary results show that the most immediate effect of the group intervention is on perceived self-

efficacy which will allow survivors and caregivers to cope more effectively with emotional distress and caregiver burden. Improved coping also has a positive effect on community participation. In addition, many other studies have shown that if left alone without any treatment, individuals with brain injury tend to feel worse over time. This study showed that individuals who did not get formal coping skills training actually got worse over the long run, but those that got to participate in this treatment actually maintained the improvements they made in their emotional well-being and perceived self-efficacy. This sug-

gests that this group treatment actually prevented emotional problems for survivors of brain injury and their caregivers. The significance of this study is not only in identifying effective methods to assist survivors of brain injury and their caregivers but also in identifying the reasons why this type of treatment is effective. Dr. Backhaus is currently completing a larger study with support from the Indiana Spinal Cord and Brain Injury Research Fund to confirm and extend her initial findings.

Research for Depression and Cognitive Problems after Traumatic Brain Injury (TBI) at Rehabilitation Hospital of Indiana

The purpose of this study is to find out if a very low level of electrical current directed through the head can reduce depression after brain injury. The level of electricity is so low you can't even feel it.

We are also interested in learning whether this same treatment will improve other problems that sometimes go along with depression and brain injury like anxiety, sleep problems, pain, and problems with attention and memory.

The device that delivers the electrical current has already been approved by the Food and Drug Administration (FDA) for use in treating depression, anxiety, and insomnia. However, it has not been tested for these problems in people with brain injuries.

If you have a history of traumatic brain injury (TBI) and are experiencing depression and attention or memory problems, you may be able to be in this study. To learn more, please contact the Study Coordinator:

Elena Gillespie, M.A.
317-329-2000

The Principal Investigator for this study is:

James F. Malec, Ph.D., ABPP-Cn, Rp,
Research Director, Rehabilitation Hospital of Indiana
Adjunct Professor of PM&R, Indiana University School of Medicine
Emeritus Professor of Psychology, Mayo Clinic

Other study investigators include:

Aaron Cohen-Gadol, M.D. and Leisha Osborn (Clarian Neuroscience Institute, Indianapolis Neurosurgical Group, Indiana University Department of Neurosurgery) Shashank Davé, M.D. (Indiana University Department of Physical Medicine and Rehabilitation) Ken Yoshida, Ph.D. (Biomedical Engineering, Indiana University/Purdue University at Indianapolis)

This research is supported and funded by the National Institutes of Health (NIH) through the Neuro-Cognitive Rehabilitation Research Network at the Moss Rehabilitation Research Institute in Philadelphia and by the Nexalin Corporation.

**Study
Subjects
Needed**

Contact us to request a newsletter, provide an email address, submit an idea or make a donation .

RHI Research Today is a publication of the Research Department of the Rehabilitation Hospital of Indiana Foundation

Our Mission : *Through Neurorehabilitation research, "Back to Normal" is the outcome for all with neurologic disorders.*

The staff of *RHI Research Today* welcome your comments!

Jim Graham
Executive Director, RHI Foundation
4141 Shore Dr.
Indianapolis, IN 46254
jgraham@rhin.com
317-329-2020