Aging With a Brain Injury  By Marti Spicer, M.S., OTR/L

Sal lives alone, with supports from an in-home chore worker, a DSHS case manager, and a non-local family member. Sal is only 60 years old, but he’s unable to fully participate in his care planning. Sal is aging with an acquired brain injury.

Sal also receives support at ElderHealth Northwest’s Heads Up Program, a specialized adult day health program for adults (ages 18-59) with acquired brain injury. He is one of the original participants from the program’s inception six years ago, and he is transitioning into our senior adult day health program.

Sal—and others like him—sensitizes us to the issues facing individuals who are aging with a brain injury. Some of these issues include:

**Loss of skills gained in rehabilitation.** Many brain-injured individuals become homebound, and their skills may dissipate if they lack the opportunity to practice them in the community. They may experience declines in their communication skills, memory-compensation strategies, and overall physical and cognitive function.

**Increased risk for injuries from falls and other impact injuries.** Across the elder population, the risk for falls increases as balance becomes compromised. Indeed, falls are the leading cause of brain injury in the elderly.

A person with a brain injury may have weakness due to injury as well as additional fall-risk factors. They may exercise poor judgment in risky situations (e.g., crossing the street), increasing the likelihood of an accident.

Acuity of senses diminishes with age, and most elders will seek to compensate for losses by using greater caution or by obtaining hearing and vision aids. A brain-injured person may not be able to identify or communicate about sensory changes they are experiencing or may have additional challenges of double vision or perceptual problems.

**Increased risk for other injuries.** An individual who has cognitive and judgment problems due to a traumatic brain injury is at higher risk for recurrent and more severe injuries. Likewise, those who acquired their injury due to...
Marty Spicer

Marti Spicer, M.S., OTR/L, is the program coordinator for the Heads Up Program at ElderHealth Northwest. She has served on the faculty and clinical faculty at University of Washington and is currently on the TBI Model Systems Advisory Board.

Ms. Spicer has degrees in occupational therapy (B.S., University of North Dakota; M.S., University of Washington). She has experience working with survivors of brain injury at Northwest teaching hospitals, rehabilitation centers, homecare, and outpatient neurorehabilitation. Six years ago she helped found the ElderHealth Northwest Heads Up day treatment program for younger adults with acquired brain injury.

She enjoys working with individuals who have suffered brain injury as they work on their personal goals in a community-based setting. She enjoys staying in shape with her clients by using free weights and participating in exercise and sport groups. She likes brain games and discussion groups, but her favorite activities are field trips all over Seattle.

Who’s Who

Continued from previous page

stroke are at increased risk for another stroke and further brain injury.

**Increase in medical needs.** Cardiac, peripheral vascular and other systems are strained by aging, and medical conditions can become increasingly complex. Memory problems and diminished organizational skills compromise the patient’s ability to self-report medical symptoms and to independently take prescribed medications.

**Increased risk for social isolation.** This is a risk for elders in general, but a brain-injured individual can be dependent upon friends and family systems for 30 years or more, during which time these care partners may pass away or burn out due to the strains of caregiving.

**General decrease in endurance, strength and range of motion.** Physical conditioning is difficult to maintain with advanced age and is further compromised in those who have trouble initiating and maintaining physical activity, even though such activity might have been habitual in the individual’s pre-injury past.

**Decrease in independent living skills.** There is often a proportionate decrease in independent living skills as declines are seen in flexibility, balance, endurance, strength and range of motion. Concerns about lost function can create a cycle of fear that further contributes to a decline in independent functioning.

Most of the participants in our acquired brain injury day health program are in their 20s through their 50s, and we are continually striving to decrease the losses and risks noted above. Programs like ours can bolster social, behavioral and cognitive skills, allowing aging participants to transition into another community-based program for seniors.

In Sal’s case, having benefited from the structure and experiences provided in Heads Up, he is now poised to transition into an elder-focused adult day health program. There he can continue to maintain his health and function and enjoy social interaction and meaningful activity.
The Effect of Community-Based Exercise on Symptoms of Depression in Persons with TBI

This study is examining the effects of aerobic exercise on depression and anxiety in persons who have had a mild to moderate TBI in the previous 6 months - 5 years. The study offers a supervised 10-week exercise program to participants along with education and motivational components. If you are interested in participating in the study, or for more information, contact Nadya at 206-685-8354.

Research Volunteers Needed

TWO Heads Up Programs Now Serve King and Snohomish Counties

Elderhealth NW is proud to announce that its original Heads Up program has just celebrated its 6th anniversary AND that a second program was opened in Marysville in May. Now younger adults with acquired brain injury have adult day health programs available in both King and Snohomish counties.

Heads Up participants work with a skilled team of nurses, occupational therapists, social workers and case managers toward meeting their goals. Each day, a wide variety of groups are offered to help individuals develop and practice their cognitive, social and physical skills. Participants also help plan activities, which include discussion groups, cognitive games, free weights, aerobics, balance and walking programs, music and art groups. Skills groups focus on activities such as cooking and using computers. Field trips and parties round out the mix.

Clinicians and clients have judged Heads Up a resounding success, with participants noting that the support and encouragement of their fellow members is a powerful element in their progress. They build a community in which their hard work each day is spiced with camaraderie and fun.

Now, six years since its inception, the two Heads Up programs are open Monday through Friday and serve over 100 participants yearly. - Marti Spicer

Research on Head Injuries In Older Adults by Hilaire Thompson

In 2003, the incidence of head injury in younger adults aged 18-65 years, was 88 per 100,000 US population. In older adults, adults older than 65 years, the incidence was 287.3/100,000 (CDC, 2007). The top two causes were falls and motor vehicle crashes including pedestrians hit by cars. Clinically, it appears that the majority of these head injuries occur in active older adults who are typically very involved in their communities.

Research has found that older adults who seek treatment for a brain injury and end up hospitalized have worse outcomes than younger adults. Older adults tend to have longer lengths of stay, higher mortality rates, delayed neurological decline and are functionally worse for the same level of injury.

Although researchers don’t understand why this difference exists, they do have some ideas. As we age, our ability to regenerate nerve tissue and therefore recover from a brain injury diminishes. Older adults may have more chronic health conditions and be taking more medications. Also, presently head injury management uses the same approach for older and younger adults, the care received may not actually be the same. Recently presented research compared over age groups whether or not people with brain injuries were admitted to acute care, had an intercranial pressure monitor, and other types of care. The older adults were less likely to get certain types of care.

Does health care utilization predict outcomes? Researchers looked at health care utilization and outcomes with older adults and younger adults. They found that a greater number of specialty

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care consultations, in other words more experts working together, significantly reduced mortality.

Research on head injuries and older adults is just at the tip of the iceberg. These injuries impact the whole family system and community. It will be important to follow older adults and their care givers or significant others after their head injuries so we can understand what difficulties they are facing and what would help.

The treatment approach to older adults with head injury needs to be examined. The treatment that is available to older adults is the same that is available to all adults. A unique approach should be developed for older adults like what has been developed for pediatric head injuries in order to reduce mortality and improve functional recovery following head injury.

### TBI Forum Series

The UW Traumatic Brain Injury Model System invites you to join its quarterly information and discussion group.

At the most recent forum, “Moving from School to Adult Life: What Parents and Young Adults with TBI Need to Know,” Dr. Denny Hasko from the Center for Change in Transition Services at Seattle University provided information about pediatric TBI, recovery, and accessing community and school resources. The session paid attention to the transition of pediatric TBI patients from hospital to school and the community.

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### Amantadine & Irritability Study

The TBI Model System/ Department of Rehabilitation Medicine beginning a new study this winter to see if Amantadine Hydrochloride is effective in treating irritability in patients with Traumatic Brain Injury. This is a federally funded, multi-center study. The other institutions participating in this study include Carolinas Rehabilitation, TIRR-Memorial Hermann, Kessler Medical Rehabilitation Research and Education Center, The Ohio State University, and Spaulding Rehabilitation Hospital.

Irritability is reported by both individuals with TBI and their families as the most common of the permanent post-TBI personality and behavioral issues. Irritability can be highly disruptive socially and at work, a major family burden, and an interference to receiving appropriate care. In severe cases, behaviors may be so disruptive that one cannot live at home. We hope to show that Amantadine Hydrochloride can be effective in reducing this type of post-TBI irritability.

For more information about this study, please contact our Research Manager at ascrol@uw.edu

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To view the power point presentation go to www.tbi.washington.edu and click on educational materials.

The next TBI Forum:

“Sex and Romance After TBI”

Will be **Wednesday, January 21st, 2009, 7:00 pm** at the South Campus Center. Please join us.

For more information, including driving and parking directions, call Aaron Scrol 206-616-0334 (ascrol@uw.edu) or visit our website at www.tbi.washington.edu.

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