More than five million Americans are living with the effects of traumatic brain injury (TBI). RehabWire for February highlights NIDRR research into TBI, including its Model Systems.

Abstract: This project creates self-employment opportunities for individuals with TBI through inventive, replicable capacity building approaches coupled with high-quality and cost-effective technical consultation and program redesign. The research addresses consumer self-determination, staff development, dissemination, and capacity building, with significant attention to consumer choice, minority enrollment, and local collaboration. Find out more at: tiselfemployment.org

Caregiver and Environmental Influences on Outcome for Infants and Preschoolers with Traumatic Brain Injury, University of Texas; Health Science Center at Houston (H133G040279) led by Mary R. Prassad. Cate Miller, PhD, Project Officer.
Abstract: This project assesses predictors of outcome in infants and preschoolers with moderate or severe TBI and pilots a randomized, controlled, home-based, caregiver-focused intervention for infants and preschoolers with TBI that enhances caregiver skills for stimulating cognitive development.

Rehabilitation and Training Center on Community Integration of Persons with TBI, The Institute for Rehabilitation and Research (TIRR) (H133B031117) led by Angelle M. Sander, PhD, Margaret Struchen, PhD. Cate Miller, PhD, Project Officer.
Abstract: The research program of this project includes: development and evaluation of a social network mentoring program; an investigation of racial/ethnic differences in acceptance of disability, community integration needs, barriers, and supports; a distance learning program to train family members in rural areas as paraprofessionals; assessment of employers’ attitudes toward persons with TBI and a pilot educational intervention to reduce attitudinal barriers in the workplace; a randomized clinical trial to assess the effectiveness of a brief substance abuse intervention; a qualitative exploration of intimacy following TBI; and a study investigating the role of social communication abilities and environmental factors on social integration. Find out more at: www.tbiselfemployment.org

Rehabilitation Research and Training Center on Traumatic Brain Injury Interventions, Mount Sinai School of Medicine (H133B040033) led by Wayne A. Gordon, PhD. Cate Miller, PhD, Project Officer.
Abstract: The research program includes two randomized clinical trials (RCTs) and two projects supportive of better everyday interventions and better research: Research Study 1 (R1) is an RCT of a treatment for depression: cognitive behavioral therapy, adapted to address the unique cognitive and behavioral challenges of people with TBI. In R2, a standard day treatment program is compared to a similar program (Executive Plus), augmented with modules to improve executive functioning and attention training. R3, Support for Evidence-Based Practice, evaluates all published research on post-TBI interventions and assessment of outcomes. R4 focuses on the PART instrument, a measure of participation currently being tested within eight TBI Model Systems. Find out more at: www.mssm.edu/nytbims

The Effect of Scheduled Telephone Intervention on Outcomes After Traumatic Brain Injury (TBI), University of Washington (H133A040004) led by Kathleen R. Bell, PhD. Theresa San Agustin, MD, Project Officer.
Abstract: This project evaluates the effect of scheduled telephone intervention (STI), a low-cost, easily implemented intervention in three states on functional and health outcomes, at weeks 1-2, 4, 8, and 12, and months 5, 7, and 9 on functional level, health and emotional status, community integration, and perceived quality of well being over one year after TBI. Research examines whether the effects of such interventions are similar in multiple sites over a wide geographic area. It also examines the differential impact of the intervention in demographic subgroups, with particular attention to minority versus non-minority racial and ethnic populations. Find out more at: depts.washington.edu/rehab/tbi

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NIDRR Projects

Research in the New Millennium
Think and Link: Email for Individuals with Cognitive Disabilities, Western Oregon University (H133A010610) led by McKay Moore Sohberg, PhD. Constance Pledger PhD, Project Officer.
Abstract: This project improves the access and use of electronic mail by individuals with cognitive disabilities resulting from brain injury. Activities of this project include: (1) identifying the wide range of issues critical for long-term, effective use of email by people with cognitive disabilities; (2) developing a diagnostic protocol, a cyber-evaluation of the potential of a person with cognitive disabilities to use electronic communication; (3) developing a software toolkit that allows caregivers, support persons, and professionals to fit an individual user with a customized email system; (4) creating a virtual clinic that supports widespread dissemination and use of these materials by cognitive rehabilitation professionals. Find out more at: www.think-and-link.org

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Did You Know...?
All 16 Model TBI Systems, as well as the TBI National Data Center, are listed in the NIDRR Program Directory Database. Browse by research priority at www.naric.com/research/pd/priority.cfm

NARIC is operated by HeiTech Services, Inc., for the National Institute on Disability and Rehabilitation Research under contract number ED-05-CO-0007.

Abstract: Study compared the accuracy and preferences of adults with TBI when using three organization strategies (semantic topic, geographic place, and a word’s first letter) to retrieve words using augmentative and alternative communication (AAC) systems. Results showed that adults with TBI retrieve words more accurately and more efficiently when using the alphabet organization strategy than when using the topic or place strategies. However, participants express a preference for using the topic strategy.

Project Number: H133E980026


Abstract: Study compared the effectiveness of an intensive cognitive rehabilitation program (ICRP) to standard neurorehabilitation (SRP) for people with TBI. The primary measure of effectiveness of treatment was improvement in community integration from before to after treatment. While both groups showed significant improvement on the Community Integration Questionnaire (CIQ), analysis indicated the ICRP participants were more than twice as likely to show clinical benefits compared to the SRP group. Satisfaction with community functioning was not related to community integration after treatment. ICRP participants showed significant improvement in overall neuropsychological functioning, as did participants who showed significant improvement on the CIQ.

Project Number: H133A020518


Abstract: Article reviews existing knowledge of the quality of life (QOL) of people with TBI and makes recommendations for future research in this area. Research relevant to the following areas is discussed: (1) QOL as achievements, (2) QOL as subjective well-being (SWB), (3) QOL as utility, (4) QOL experienced, and (5) methods and instruments available for measuring QOL for people with TBI. Findings indicated that studies of QOL as achievements showed that people with TBI scored lower than they did before injury and lower than comparison groups. Research into QOL as SWB shows that after TBI, people typically report somewhat lower satisfaction and affect than do comparison groups, and that injury severity is not necessarily a predictor of SWB. There are almost no studies of QOL as utility of life after TBI. Major research recommendations include: exploring the ability of TBI subjects to self-report, determining the salience of domains of life for this group, developing utility instruments that are sensitive to differences in deficits in cognition and other health and life domains; and doing qualitative studies that explore the experience of QOL.

Project Number: H133A020501, H133B980013, H133G990221


Abstract: Study examined the incidence and course of acute confusion or delirium in patients with TBI in an acute neurorehabilitation setting. Eighty-five patients were evaluated using measures of motor restlessness (Agitated Behavior Scale), cognition (Cognitive Test for Delirium), orientation (Galveston Orientation and Amnesia Test), and delirium (Delirium Rating Scale). Results showed that 59 subjects met the criteria for delirium on initial evaluation and 42 of those resolved delirium during rehabilitation. Multivariable logistic regression analyses revealed significant unique associations of the Galveston Orientation and Amnesia Test, the Delirium Test for Delirium, and time elapsed since injury with delirium status. Authors conclude that acute confusion is common and has a complex neurobehavioral presentation that is not adequately characterized with a single measure.

Project Number: H133A980035


Abstract: Article describes the evaluation of the Program Without Walls (PWW), a community-based approach for state rehabilitation counselors to provide vocational rehabilitation (VR) services to people with TBI. Twenty-one consumers with TBI received person-centered, community-based services from a team of freelance consultants who were recruited, trained, and supervised by the state VR counselor overseeing the PWW team; and 21 age-matched controls received traditional VR services. Outcome variables were case status at closure, weekly earnings at closure, hours working at closure, and cost of case services. Results showed that the PWW successfully placed more consumers who worked a greater number of hours per week and earned more per week than those who received traditional VR services without increasing the cost of case management.

Project Number: H133B980013


Abstract: Study documents medical and rehabilitation service utilization during the first three months following discharge from inpatient rehabilitation for TBI. Seventy-three subjects drawn from the Georgia Model Brain Injury System completed a survey that asked about service access and intensity of service use. Results indicated that subjects with mild and moderate injuries were just as likely to use a range of medical and rehabilitation services during the 3-month period as those with severe injuries. Traditional rehabilitation services, such as physical therapy, were far more likely to be used than non-traditional services, such as psychological counseling.

Project Number: H133A980028

Thousands of additional resources on these topics are available from NARIC’s Browse by Subject pages at www.naric.com/search/browse.html