

The intervention consisted of 12 sessions of systematic motivational counseling specifically aimed at preventing alcohol or drug abuse. All participants completed baseline and follow-up assessments with measures of substance use, coping skills, affect, and employment status. At the 9-month follow-up, participants in the intervention group demonstrated a statistically significant decrease in alcohol and drug use, increased coping skills, and increased likelihood of maintaining employment, relative to controls. The findings support the feasibility and efficacy of a skills-based counseling program for the prevention of alcohol or drug use problems following TBI.

Vickery, C., Sherer, M. (2008) **Relationships among premorbid alcohol use, acute intoxication, and early functional status after traumatic brain injury.** *Archives of Physical Medicine and Rehabilitation*, 89(1), 48-55. [NARIC Accession Number: J53825](#). Project Number: H133A020514.

Abstract: Study examined the relationships among intoxication at time of injury, preinjury history of problem drinking, and early functional status in 1,748 patients with traumatic brain injury. Blood alcohol level (BAL) was obtained at admission to the emergency department, and a history of problem drinking (frequency of drinking and binge drinking) was obtained through interview. Acute global outcome as measured by the Disability Rating Scale (DRS) and functional status as measured by the Functional Independence Measure (FIM) were assessed at admission to inpatient rehabilitation. Analyses revealed that BAL and a history of binge drinking predicted DRS, but not FIM, scores. A higher BAL scores was associated with poorer global outcome on the DRS. Surprisingly, a history of binge drinking was associated with a better global outcome. Neither BAL nor history of alcohol use was related to the level of functional independence.

Corrigan, J., Bogner, J. (2007) **Interventions to promote retention in substance abuse treatment.** *Brain Injury*, 21(4), 243-256. [NARIC Accession Number: J54235](#). Project Number: H133A70032.

Abstract: This randomized clinical trial compared 3 methods of intervention for improving retention in substance abuse treatment for people with traumatic brain injury. Subjects were randomly assigned to: (1) provision of financial incentive to not miss appointments, (2) reduction of logistical barriers to attending appointments, or (3) attention control. It was hypothesized that effective intervention would result in fewer missed appointments, enhance therapeutic alliance, and reduce premature treatment termination. Each intervention was delivered through a single telephone interview. Results indicated that provision of a financial incentive was most effective for facilitating early attendance and appeared to promote successful completion of treatment. Reduction of logistical barriers did not significantly improve attendance or successful discharge. The hypothesized role of improved therapeutic alliance as a consequence of, as well as a mediator for, preventing premature termination was not supported.

Pagulayan, K. (2007) **The impact of alcohol use on outcome and recovery after traumatic brain injury.** [NARIC Accession Number: O17082](#). Project Number: H133F060032.

Abstract: Study investigated the prevalence, predictors, and impact of alcohol among 177 adults and adolescents with traumatic brain injury (TBI). All participants completed the Center for Epidemiological Studies-Depression Scale and the Sickness Impact Profile, and provided information about the quantity and frequency of alcohol consumption at 4 time points: 1 month, 6 months, 12 months, and 3 to 5 years post injury. At the first 3 follow-ups, participants also completed a battery of neuropsychological tests. Individuals with TBI were found to have high rates of moderate-to-heavy alcohol consumption pre-injury. Alcohol consumption declined immediately after the injury, but there was a statistically significant increase in the percentage of individuals who started drinking between 1 and 6 months post injury. Pre-injury moderate-to-heavy drinking and less severe injuries consistently predicted return to drinking at 6 months, 12 months, and 3 to 5 years post injury. There was no significant difference in depressive symptoms or functional outcome between abstinent/light and moderate/heavy groups. Neuropsychological performance at 1 month and at 12 months post injury was significantly better for those who drank in the moderate-to-heavy range, compared to those who were abstinent. The results suggest that individuals with a history of moderate-to-heavy alcohol use and a relatively mild TBI should be target for alcohol interventions within the first 6 months after injury.

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NIDRR Grantees on the Cutting Edge

Toward Equity: Innovative, Collaborative Research on Interpreter Training, DBT, and Psychological Testing, *University of Rochester*

(H133A031105) led by Robert Pollard, PhD. Bonnie Gracer, Project Officer.

Abstract: The research activities of this project focus on three thematic categories: mental health interpreting, dialectical behavior therapy, and psychological testing. The interpreter training project builds upon the Deaf Wellness Center's (DWC) prior innovations in interpreter training and applies them to four geographically dispersed urban settings. Dialectical behavior therapy (DBT) is a highly structured treatment approach focusing on emotional regulation and behavioral self-control. The three-part DBT project adapts DBT materials and methods to maximize treatment access and efficacy with three deaf consumer populations: those with language skills, those with limited language, and those with comorbid psychiatric and substance abuse problems.

Find out more at: www.urmc.rochester.edu/dwc/scholarship/Equity.htm

Ohio Regional TBI Model System, Ohio Valley Center for Brain Injury Prevention and Rehabilitation (H133A070029) led by John D. Corrigan, PhD. Delores Watkins, Project Officer.

Abstract: This project includes one local research project and a collaborative research module. The local project is an extension of two previous randomized clinical trials in which a targeted financial incentive was found efficacious for engaging and retaining persons with traumatic brain injury (TBI) in substance abuse treatment. The current study investigates the efficacy of a financial incentive for engendering attendance at work as persons with TBI and substance use disorders initiate employment. The collaborative research module replicates and extends a preliminary study recently completed at OSU. That project used geographic identifiers to compile data about the social and economic characteristics of a person's neighborhood. Researchers then examined the contribution of these environmental factors to outcomes from TBI. The current module contributes to an evaluation of the utility of adding a geographic identifier, based on a person's residence at follow-up, to the TBI Model Systems National Dataset. With this identifier, future Model

Substance abuse has a complicated relationship with disability: It can be the cause of a disability, such as injuries that occur as a result of intoxication; it can be co-occurring disability, as when someone with a disability turns to drugs and alcohol to fight pain or depression. The projects and publications listed here examine substance abuse, its treatment, and how it impacts disability and rehabilitation.

Please note: These abstracts have been modified. Full, unedited abstracts, as well as any available REHABDATA citations, are available at naric.com.

Thousands of additional resources on these topics are available from NARIC's resource pages at www.naric.com/public

NIDRR research on substance abuse disability spans several priorities including Employment Outcomes, Health and Function, and Participation and Community Living.

Systems researchers could access an ever-growing array of information about the environment and link it to Model Systems data about an individual's outcome. Dissemination efforts include "SynapShots", an educational website produced with the Brain Injury Association of America, and a systematic review of Screening and Brief Interventions for the Model Systems Knowledge Translation Center.

Find out more at: www.ohiovalley.org

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 Leslie J. Caplan, 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; 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. Training projects include: a National Information, Educational Resources, Dissemination, and Technical Assistance Center for the Community Integration of Individuals with TBI; development of educational materials for increasing community awareness of TBI and reducing attitudinal barriers; adoption of a social action network program from disability studies for improving positive identity; partnering with artists in the community to implement a Center for Creative Expressions for Persons with TBI; training of community healthcare professionals in the community integration needs of persons with TBI; a rehabilitation fellowship in community integration of persons with TBI; development of educational materials to train state vocational counselors in the needs of persons with TBI; and a state-of-the-science conference and book on community integration.

Find out more at: www.tbcommunity.org

Rehabilitation Research and Training Center on Substance Abuse, Disability, and Employment, *Wright State University* (H133B040012) led by Dennis C. Moore, EdD. Edna Johnson, PhD, Project Officer.

Abstract: This RRTC builds on previous findings to positively impact persons with disabilities who also experience substance use disorders, as well as the service providers upon whom they depend. The highly integrated program of research addresses the following goals and objectives: (1) Promote widespread use of substance use disorder screening among persons with disabilities who utilize disability-related employment services. This is accomplished by developing and validating a new substance abuse screener called the "SASSI-VR". Following two stages of development and validation, the SASSI-VR is evaluated in three vocational rehabilitation (VR) programs on a statewide basis. (2) Conduct a randomized clinical trial of a model of supported employment, Individualized Placement and Support (IPS), to test its efficacy among persons with traumatic brain injury or other severe disabilities that also have a substance use disorder. The two trial sites are affiliated with rehabilitation programs in the Wright State and Ohio State medical schools. Utilization of the IPS model with the



According to the Office on Disability at the Department of Health and Human Services "[p]ersons with disabilities experience substance abuse rates at 2 - 4 times that of the general population." Estimates from the National Association on Alcohol, Drugs, and Disability put the number of persons with disabilities with co-existing substance abuse over 4.5 million! See www.dhhs.gov/od/about/fact_sheets/substanceabuse.html for more information.

Where Can I Find More?

A quick keyword search is all you need to connect to a wealth of disability and rehabilitation research. NARIC's databases hold more than 75,000 resources. Visit www.naric.com/research to search for literature, current and past research projects, and organizations and agencies in the US and abroad.



The Cochrane Collaboration has two groups with a substance abuse focus: Drugs and Alcohol and Tobacco Addiction. No protocols or reviews were found that specifically discussed substance abuse co-occurring with disability, however. Visit www.thecochranelibrary.org and click By Review Group to browse by topic.

study populations holds tremendous potential or impacting services delivery for consumers who experience very low rates of employment. (3) Research policy and practices relative to their impact on VR services for persons with a disability and coexisting substance abuse. Serving as a critical complement to RI, the roles of policies, statutes, guidelines, and VR service delivery practices will be investigated within the larger community of public agencies. (4) Investigate factors that specifically contribute to unsuccessful case closure among consumers of VR services. This component studies recent VR unsuccessful closures and their counselors, and the study has particular sensitivity to the role of "hidden" substance abuse among unsuccessful closures.

Find out more at: www.med.wright.edu/citar/sardi/rrtc_about.html

Current Literature - Selections from REHABDATA

Kaufman, M., Graham, C. (2007) **Burns as a result of assault: Associated risk factors, injury characteristics, and outcomes.** *Journal of Burn Care and Research*, 28(1),21-28. [NARIC Accession Number: J51920](#). Project Number: H133A020103; H133A020402.

Abstract: Study compared demographic characteristics, injury characteristics, and outcomes between patients with intentional burn injuries (assault) and those with unintentional burns. Participants included patients sustaining major burns from May 1994 to August 2005. Eighty patients sustained intentional burn injuries and 1,982 patients sustained unintentional burn injuries. Patients with intentional burns were more likely to be female, Black, and unemployed and to have higher rates of pre-morbid substance abuse. There were no significant differences between groups in pre-injury living situation, education level, history of psychiatric treatment, or hospital length of stay. The intentional-burn group had larger burns, a greater in-hospital mortality rate, was less likely to be discharged to home, and demonstrated significantly greater levels of psychological distress during the acute hospitalization, but not at follow-up.

Krahn, G. Farrell, N. (2006) **Access barriers to substance abuse treatment for persons with disabilities: An exploratory study.** *Journal of Substance Abuse Treatment*, 31,375-384. [NARIC Accession Number: J52400](#). Project Number: H133B040034; H133B990019.

Abstract: Analyses of demographic and referral source data, as well as interviews with representatives from key state agencies, adults with disabilities, and treatment program staff, were used to identify barriers to substance abuse treatment among Medicaid-eligible adults with disabilities in Oregon. The Behavioral Model for Vulnerable Populations was used as a framework for summarizing the findings regarding factors related to health service utilization and the specific challenges faced by people with disabilities in accessing substance abuse treatment. Specific barriers identified included a lack of support from their social environment, lack of accommodations by treatment centers, agency limitation, inadequate reimbursement rates, dual-diagnosis demands, policies regarding psychoactive drug use, and stigmatization by clinicians and agency personnel.

Vungkhanching, M., Heineman. (2007) **Feasibility of a skills-based substance abuse prevention program following traumatic brain injury.** *Journal of Head Trauma Rehabilitation*, 22(3),167-176. [NARIC Accession Number: J52446](#). Project Number: H133P030002; H133P980014.

Abstract: Study evaluated the feasibility of a skills-based substance abuse prevention counseling program for adults with traumatic brain injury (TBI). The 3- and 9-month outcomes were compared between subjects who participated in the intervention and those who did not (controls).