

Research In Focus: A Weekly Digest of New Research from the NIDILRR Community

Knowledgeable VR Staff and Specialized Services May Help Improve Employment Outcomes for People with Traumatic Brain Injuries and Visual Impairment

A study funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR).

A traumatic brain injury (TBI) is lasting brain damage from an external force, such as a fall or a car accident. After a TBI, people may experience a variety of disabilities. Some people may develop visual impairments after a TBI. Research has shown that both people with TBI and people with visual impairments are employed at much lower rates than people without disabilities. Vocational Rehabilitation (VR) services may help individuals with TBI and visual impairments to find and keep jobs, but it may be challenging to find the best VR practices to serve the unique needs of people who have both of these disabilities together. In a recent NIDILRR-funded study, researchers interviewed VR agency leaders about the practices they use to serve consumers with both TBI and visual impairment, and reviewed data on the employment rates and quality of jobs attained by these consumers. The researchers wanted to find out which VR practices were associated with higher employment rates and higher-quality job attainment for consumers with both TBI and visual impairment. They also wanted to find out what consumer-level factors were associated with higher employment rates and attaining higher-quality jobs for these consumers.

Researchers at the Rehabilitation Research and Training Center on Employment for Individuals with Blindness or Other Visual Impairments interviewed the administrators of 51 state-level VR agencies throughout the United States. Twenty-seven of these VR agencies served consumers with and without visual impairments, while the remaining 24 served only consumers with visual impairments, with or without additional disabilities. The researchers asked the agency administrators to describe their practices for serving consumers who have both TBI and visual impairment.

To obtain information on the employment rates and job quality, the researchers looked at Case Service Report Data from the Rehabilitation Services Administration, specifically data from the consumers served by those 51 state-level VR agencies. Specifically, they looked at data from 880 consumers with both a TBI and visual impairment who completed VR services between 2013 and 2015. The researchers looked at the percentage of the consumers from each agency who exited VR with a job. For the consumers who did exit with a job, they also scored the quality of the job by determining whether the consumer received health insurance from the job, how their weekly salary compared with the established living wage in their state, and how the hourly wage compared with the median hourly wage in their state.

To determine which factors were associated with successful job attainment and job quality, the researchers looked at data about agency services and about the individual consumers. Data from the agencies included whether the agency served consumers with all types of disabilities or just consumers with visual impairments, as well as the strategies that the agency administrators reported using to best serve their consumers with a TBI and visual impairment. Data about the individual consumers included their gender, age, race/ethnicity, education level, whether they had a job when they applied for VR, and the types of services they received from VR, such as job search assistance, training or courses, or on-the-job supports.

The researchers found that the VR agency administrators described five major strategies for serving consumers with a TBI and visual impairment. These included:

1. Collaboration: Twenty-three of the agency administrators reported having staff from multiple backgrounds work together to serve consumers with TBI and visual impairment.
2. Dual expertise: Three of the agency administrators reported having at least one individual on staff who had specialized expertise in both TBI and visual impairment. This individual served consumers with combined TBI and visual impairment.
3. Involvement with external organizations: Ten of the agency administrators described building partnerships with state or private organizations, such as brain injury programs or rehabilitation centers, to optimize service provision to consumers with TBI and visual impairment.
4. Specialized TBI unit: Nine of the agency administrators reported that their agency had a specialized TBI unit or staff specifically trained to serve consumers with TBI.
5. Staff training on TBI: Six of the agency administrators reported ongoing training on TBI for their staff assigned to serve consumers with visual impairments, for example, by sending them to a local TBI conference.

When the researchers looked at the data about the consumers with TBI and visual impairment, they found that about 42% of the consumers with a TBI and visual impairment exited VR with a job. Most of these consumers attained jobs of lower quality compared to consumers with visual impairments but without a TBI. Of the consumers who attained jobs, only 9% had health insurance through their job, 12% earned a salary above the state living wage, and 8% earned an hourly wage above the state median.

The researchers found that three agency factors were related to higher employment rates for the consumers with TBI and visual impairment: specialization in serving only consumers with visual impairments, employing a staff member with dual expertise in TBI and visual impairment, and providing staff training on TBI. Consumers served by agencies with these characteristics were more likely to be employed at case

closure. However, these three factors were not associated with job quality for the successfully employed consumers.

Finally, when looking at consumer factors, the researchers found higher employment rates among the consumers who were already employed at the time of VR application, the consumers with more education, the white consumers, the consumers who earned a degree or certificate while receiving VR services, and the consumers who received job search or placement assistance or on-the-job supported employment from VR. Regarding job quality, the consumers who were male, older, more educated, and those who received a degree or certificate or information and referral services from VR had the highest job quality.

The authors noted that several VR practices may be associated with positive employment outcomes for consumers with TBI and visual impairment. In this study, the most effective VR agencies had at least one staff member with expertise in both TBI and visual impairment or provided ongoing training on these disabilities. These agencies had more consumers with TBI and visual impairment who were successfully employed. VR agencies may wish to hire counselors with expertise in both TBI and visual impairment, or to provide cross-training to counselors with expertise in one area or the other, to improve employment outcomes for consumers with both TBI and visual impairment. The authors also noted that educational attainment was strongly associated with both employment and job quality for these consumers. VR counselors may wish to support postsecondary education goals for consumers who wish to improve their qualifications by obtaining a degree or certificate. Finally, the authors noted that supported employment may be an especially promising practice for consumers with combined TBI and visual impairment and may address the unique accommodation needs presented by both of these disabilities. Future research may be useful to identify ways of improving the quality of jobs that these consumers obtain with the assistance of VR services.

[To Learn More](#)

The [National Technical Assistance Center on Blindness and Visual Impairment](#) offers a wealth of information resources, tools, and training opportunities for VR administrators and counselors as well as individuals with blindness or other visual impairments seeking employment. These include policy briefs and factsheets on providing services to individuals with combined TBI and visual impairment and free online courses for counselors and consumers including courses on [brain injury and vision loss](#) and [neuropsychological assessment for people with visual impairments](#).

Learn how a TBI can impact vision in [Vision Problems and Traumatic Brain Injury](#), a factsheet from the Model Systems Knowledge Translation Center.

[To Learn More About this Study](#)

McDonnall, M.C., Cmar, J.L., and McKnight, Z.S. (2020) Service factors and personal characteristics associated with employment and job quality for vocational rehabilitation

consumers with combined traumatic brain injury and visual impairment. *Journal of Vocational Rehabilitation*, 52. This article is available from the NARIC Collection under Accession Number J83601 and [free in full text from the project's publication page](#).

Research In Focus is a publication of the National Rehabilitation Information Center (NARIC), a library and information center focusing on disability and rehabilitation research, with a special focus on the research funded by NIDILRR. NARIC provides information, referral, and document delivery on a wide range of disability and rehabilitation topics. To learn more about this study and the work of the greater NIDILRR grantee community, visit NARIC at www.naric.com or call 800/346-2742 to speak to an information specialist.

NARIC operates under a contract from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), Administration for Community Living, Department of Health and Human Services, contract #GS-06F-0726Z.