

Recommendations Regarding Services for Individuals with Combined Traumatic Brain Injury and Visual Impairment

The National Research and Training Center on Blindness and Low Vision conducted a study to learn about service provision and employment outcomes for individuals with a traumatic brain injury (TBI) and blindness or visual impairment (B/VI) who were served by state-federal vocational rehabilitation (VR) agencies. During interviews with VR agencies, we asked (1) how the agency provides services to this population, (2) whether the agency has staff with expertise in both TBI and B/VI, and (3) if and how staff collaborated with other counselors to serve consumers with combined TBI and B/VI. We used this information to identify service strategies utilized with this population and then evaluated whether these strategies were associated with positive employment outcomes for consumers. The following is a brief summary of what we learned, followed by recommendations for VR agency policy and practice.

Service Strategies for Consumers with Combined TBI and B/VI

Using data from interviews with administrators and staff from 51 separate and combined VR agencies, we identified five strategies that VR agencies used to serve consumers with combined TBI and B/VI.

- **Collaboration.** Agency staff worked together to serve consumers with combined TBI and B/VI. In separate agency states, separate and general agency staff collaborated to serve these consumers, which sometimes involved opening joint cases. In combined agencies, staff collaborated with other divisions or units within their agency.
- **Involvement of external organizations.** Agency staff worked with medical centers, hospitals, rehabilitation centers, brain injury programs, and other private or state organizations. Some agencies used external organizations as vendors or contractors, while others had a deeper level of involvement and worked closely with these organizations.
- **Specialized TBI Unit.** Some combined agency administrators reported having a TBI unit, program, or team; counselors with TBI expertise; or specialized TBI caseloads. Agencies involved these specialized personnel in service provision for consumers with combined TBI and B/VI.
- **Staff training on TBI.** Some agencies provided TBI-related training to their staff members who serve consumers with B/VI. Examples included (a) providing a day-long, in-person training on TBI and B/VI to counselors at a separate agency; (b) providing TBI training via videoconferencing to all staff at a combined agency; and (c) supporting counselors' attendance at a brain injury conference.
- **Personnel with dual expertise.** A few administrators reported having one or more staff members who had expertise in both TBI and B/VI. One of these agencies has a staff member at its rehabilitation center for the blind who is a Certified Brain Injury Specialist through the Brain Injury Association of America.

Effectiveness of Service Strategies

We combined the interview data with Rehabilitation Services Administration Case Service Report data from fiscal years 2013-2015 to evaluate the effectiveness of the service strategies on competitive employment and job quality for consumers with combined TBI and B/VI. After accounting for consumer characteristics and VR service receipt, two service strategies were significantly associated with better competitive employment outcomes: staff training on TBI and personnel with dual expertise. Consumers served by agencies whose staff received training on TBI were about two times more likely to achieve competitive employment than those served by agencies whose staff did not receive training. Having personnel with dual expertise was an even stronger predictor of competitive employment: consumers served by agencies with personnel with dual expertise had three times higher odds of competitive employment than those served by agencies without dual expertise. These findings support the importance of agencies having personnel with expertise or training in both TBI and B/VI.

Recommendations for VR Agency Policy and Practice

In general, positive employment outcomes for consumers with a combined TBI and B/VI are less likely, compared to consumers with only B/VI or only TBI. The following recommendations are based on what we learned in this study and can help VR agencies serve these consumers.

- **Screen for TBI in consumers.** It is important for agencies to accurately identify consumers with a TBI so that any TBI-related challenges are appropriately addressed. Only a few agency administrators reported currently screening consumers for a TBI. There are many brief screening instruments available. There are a number of screening tools available; one free tool is the [HELPS Brain Injury Screening Tool](#). Other tools are described on the [Center for Excellence in Disabilities website](#).
- **Provide intensive TBI-related training to staff.** In our study, agencies that provided training for staff had better consumer employment outcomes. Anecdotally, many VR counselors report having consumers on their caseloads who have a confirmed or suspected TBI, and they also report not knowing how to work effectively with this population. Providing training is a relatively simple, attainable strategy to help counselors and other staff feel comfortable and improve knowledge about how to best serve this population. Many online training options exist, and in-person national and state TBI conferences occur regularly.
- **If a consumer has a TBI or you suspect a TBI, obtain a neuropsychological evaluation.** A neuropsychological evaluation is a formal assessment of how one's brain functions. It can help diagnose a brain injury and describe the cognitive and behavioral impacts of the brain injury. A neuropsychological evaluation can identify cognitive strengths and weaknesses and guide treatment planning, including identifying appropriate vocational goals. Specific questions and reasons for the evaluation should be provided to the psychologist conducting it. It is important that the psychologist who performs the neuropsychological evaluation is familiar with B/VI and able to conduct a valid assessment, given the individual's level of vision loss. If you cannot find a neuropsychologist with this experience, consider connecting the neuropsychologist you select with a psychologist who has conducted testing with people with B/VI.

- **Strive to have services provided by a person with dual expertise in TBI and B/VI.** Our research indicates that even when considering consumers' personal characteristics and the services they received, employment outcomes were much better for consumers served in agencies that had staff with dual expertise in TBI and B/VI. If your agency does not have a staff person with dual expertise, you should strive to identify a professional with dual expertise in your TBI vendor network. Ask your vendors if they have a person with this expertise. If you can identify someone with dual expertise, it would be valuable to send all consumers with TBI and B/VI to that provider, if possible. If your vendors do not have a staff person with dual expertise, you could express your interest to vendors in having that expertise available for your consumers.
- **Establish dual expertise within your agency.** This may be a more challenging service strategy to attain, but it was strongly associated with more positive outcomes for this population. Combined agencies may have the option of allowing someone with existing expertise in TBI to be trained on services for B/VI. For example, the Vision Specialist Certificate Program, offered by the NRTC, is one option for intensive training on B/VI. Agencies for the blind may be able to identify a person in the agency with an interest in developing expertise on TBI and provide intensive training in that area. Several online training options exist, although obtaining a certificate in TBI generally requires a certain number of contact hours with individuals with TBI, which may be difficult to accomplish.

Online Training Options

This list is not exhaustive, but it provides a starting point for online training options for VR professionals.

- [Brain Injury Association of America](#) has several training and certification options through its Academy of Certified Brain Injury Specialists.
- [National Technical Assistance Center on Blindness and Visual Impairment](#) offers a free, online continuing education course that covers basic information about brain injury and vision loss.
- [Commission on Rehabilitation Counselor Certification e-University](#) offers an online continuing education course about optimizing vocational outcomes for individuals with TBI through recreation and leisure.
- [Ohio Valley Center for Brain Injury Prevention and Rehabilitation](#) has several archived webinars about TBI and other resources for professionals.
- [Michigan Traumatic Brain Injury Online Training](#) offers training courses about acquired brain injury, health complications associated with TBI, and finding and using public services.

For More Information

This policy brief is based on research findings from the following articles:

- McDonnall, M. C., Cmar, J. L., & Lund, E. M. (2020). Comorbid traumatic brain injury and visual impairment: Vocational rehabilitation service provision and agency-level outcomes. *Journal of Visual Impairments & Blindness*, 114(1), 6-17

- McDonnall, M. C., Cmar, J. L., & Sui, Z. (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(3), 223-238.

Both articles are [available on our website](#).



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