

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

## Project Career: A New Program to Support College Students with Traumatic Brain Injuries

*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. TBI is the leading cause of death or lifelong disability in Americans under age 45, according to the Centers for Disease Control and Prevention. People with TBI may develop a variety of disabilities including vision or hearing loss, trouble walking, or trouble with mental tasks such as long- and short-term memory, concentration, planning, and organization. These challenges may make it especially difficult for college students with TBI to do well in school or to find and keep jobs.

Cognitive Support Technologies (CST) and Vocational Rehabilitation (VR) are two supports that can assist college students with TBI. CST consist of equipment and apps to help with memory, planning, and other tasks. Examples of CST range from watches, calendars, and desk planners to complex electronic reminder systems. VR is an individualized case-management approach to employment in which clients receive services tailored to their particular needs, such as career counseling, job search assistance, or on-the-job coaching. College students with TBI may not be aware of the supports available to them on their campuses or through state VR agencies. In a recent NIDILRR-funded study, researchers developed and tested a new program called Project Career which combines CST with individualized VR services for college students with TBI. They wanted to find out what challenges the students with TBI had when they began the program, what kinds of CST they already used, and how the new program could help the students do better in college and find jobs.

Researchers at [Project Career: Development of an Interprofessional Demonstration to Support the Transition of Students with Traumatic Brain Injuries from Postsecondary Education to Employment](#) looked at data from 146 students with TBI enrolled in the Project Career program at 33 different 2- or 4-year colleges or universities between 2013 and 2018. As part of the program, each student worked individually with a Technology and Employment Coordinator (TEC). The TEC interviewed the student to find out about their academic and employment activities, what challenges they experienced as a result of their TBI, what supports they had used such as their school's disability services, and their attitudes toward technology. Then, each student was given an iPad with specific apps that were selected by the TEC and the student based on the student's particular technology-related needs and preferences. The TEC were in regular contacts with each student in person, in virtual or phone meetings, or by email to find out how they were doing, to see if they needed different apps, and to provide help for their academics and job search. During these contacts, the TECs also assisted the students with other academic and vocational support such as counseling, helping them

find internships and mentors, and helping them access vocational rehabilitation services or on-campus Disability Support Services. Finally, the TECs repeated the assessment interview at six- and twelve-months after the student joined the program to see if they reported changes in their academic or employment status, challenges they encountered or addressed, or in their attitudes and feelings toward technology.

The researchers looked at information from the first assessment to learn about the most common challenges reported by the students. The researchers also looked at notes from the meetings between the students and the TECs to find out what apps the students used during the program and how many days they used the apps. To find out whether the program helped the students, the researchers also looked at all the notes from the meetings to find out what kind of help the students asked for and what changes they noticed (good and bad) while they worked with the TEC.

The researchers found that when students first entered Project Career, the students most often described having challenges with memory, concentration, planning, and organizing. Other challenges included feeling anxious or depressed, having trouble with social relationships, or having visual or hearing impairments.

After receiving their iPads, each student reported using an average of 5.8 cognitive support apps for an average of 125 days. The most common types of apps were those designed to help with planning and organizing, educational/academic topics, and notetaking.

When the researchers looked at the notes from the case meetings between the students and the TECs, they found that the most commonly discussed topics and service requests were in the areas of academic counseling, app use, employment, and accessibility supports on campus. Some of the students also requested assistance with other issues, such as housing, health insurance, and Social Security Disability.

Finally, the researchers found that the students generally reported positive changes while being in the Project Career program. Many of the students said that the cognitive support apps helped them to improve their class grades and test performance. Others were able to secure employment, mentorship, or new social connections with the help of their TECs. After working with the TECs, students often noted taking action on their own to make changes or address challenges, such as changing their class schedules or disclosing their TBI and requesting disability supports. By the end of the project, 28% of the students had graduated with their degrees, and all but one of these students was either employed, pursuing further education, or both.

The authors noted that college students with TBI may not have access to services or may not be fully utilizing the services available to help them in school and work. These students may benefit greatly from individualized case management combined with specific CST solutions to help with academic tasks and find jobs. The authors noted that the students in this study reported improvements in their overall quality of life, not just in their academic performance, and often took the initiative to self-advocate for their

needs. The case management services may have helped these students to overcome social and emotional challenges as well as those related to academic performance and employment. Future research may be useful to standardize the Project Career program and identify which specific parts of the program are most helpful for college students with TBI.

#### To Learn More

Learn more about Project Career and find resources for students with TBI:

<http://www.projectcareertbi.org/>

Learn more about how TBI affects memory, cognition, and emotions with factsheets, videos, and more from the Model Systems Knowledge Translation Center

<http://www.mkstc.org/tbi>

Students with TBI and other disabilities can learn about their rights to accommodations and services in school and how to advocate on their own behalf through the Access to Success online course developed by the University of Kansas.

<https://accesstosuccess.ctb.ku.edu/>

#### To Learn More About this Study

Leopold, A., Rumrill, P., et al. (2019) A mixed-methodological examination of participant experiences, activities, and outcomes in a technology and employment project for postsecondary students with traumatic brain injuries. *Journal of Vocational Rehabilitation*, 50(1), 3-11. This article is available from the NARIC Collection under Accession Number J80550.

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