

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

### A Brief Program May Help People Build Resilience After a Traumatic Brain Injury

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

A traumatic brain injury (TBI) is lasting brain damage resulting from an external force, such as a fall or a car accident. People with TBI may have challenges managing stress, thinking and remembering things, or communicating with others. Resilience is the ability to adapt positively to traumatic events and being resilient can help people manage these challenges and adjust to life changes after a TBI. Past research has found that people can become more resilient by learning and practicing coping skills.

In a recent NIDILRR-funded study, researchers tested a new program called the Resilience and Adjustment Intervention (RAI). The RAI program is designed to help build resilience for people with TBI. They wanted to find out if the program would lead to higher resilience, fewer emotional challenges, or lower stress for people with TBI. They also wanted to find out if the benefits of the program could last over a 3-month period.

Researchers at the [Virginia Commonwealth University Traumatic Brain Injury Model System Center](#) enrolled 160 people with TBI in a study. The participants were adults over the age of 18, and all had their TBI for at least three months before beginning the study. The participants were randomly divided into two groups: an experimental group who participated in the RAI Program and a comparison group who did not receive any services during the study (but were given the opportunity to receive the intervention after the study was complete).

Each participant in the experimental group had 7 one-hour sessions with a therapist in an outpatient clinic over a five-week period. Participants were also given worksheets and reading materials to complete at home between sessions and were asked to discuss these materials with family and friends. Each session covered a different topic related to resilience and TBI as follows:

1. Learning about common life changes after a TBI;
2. Discussing how to take an active role in TBI recovery;
3. Goal setting and defining success in a flexible way;
4. Learning how to solve problems and overcome challenges;
5. Managing stress and difficult emotions;
6. Communication skills, building relationships, and talking to others about TBI; and
7. Having a positive outlook on life and overcoming negative thinking.

The participants in both the experimental and comparison groups completed questionnaires at the beginning of the study and either after the final session (experimental group) or about five weeks after starting the study (comparison group). The participants in the experimental group completed the questionnaires a third time

about three months after the end of the program. The questionnaire included questions asking how often the participants felt resilient (e.g., “coping with stress can strengthen me”); how they rated themselves on problem-solving and communication skills; and how much they experienced emotional challenges (such as anxiety or depression) or feelings of being stressed or overwhelmed.

The researchers found that the participants in the experimental group reported feeling more resilient, improving their communication and problem-solving skills, and feeling fewer emotional challenges and less stress at the end of the study than at the beginning of the study. For example, the participants’ resilience scores increased by an average of 35%, and their stress scores decreased by an average of 33%. These improvements were maintained three months after the end of the study. In contrast, the participants in the comparison group showed only very small changes in their resilience, skills, emotional challenges, and stress levels.

The authors noted that resilience may play a key role in helping people adjust to challenges after a TBI. Although the stresses of having a TBI can challenge resilience, people can improve their resilience by learning and practicing specific skills. The participants in this study showed improvements in their emotional health and problem-solving skills after only seven brief sessions. Future research may be useful to explore other ways for people with TBI to build their resilience, including long-distance or group-based programs.

To Learn More

The [Model Systems Knowledge Translation Center \(MSKTC\)](https://www.msktc.org/tbi) develops and curates TBI resources from the Model Systems, including factsheets, video modules, and the innovative TBI InfoComics series. <https://www.msktc.org/tbi>

Brainline.org offers a wealth of resources on TBI for survivors, family members and caregivers, military personnel, and professionals, including articles from researchers, survivors, and supportive organizations. These include:

- [Resilience: What Is It?](#)
- [Positive Ways to Reinvent Yourself After a TBI](#) (video)
- [Tapping into Skills of Resilience After Brain Injury](#) (video)

For professionals who work with individuals with TBI, the [Resilience and Adjustment Intervention \(RAI\) is available](#) through the National Resource Center for TBI. Learn more about its development and frequently asked questions, including how to receive training on using the RAI with clients with TBI.

To Learn More About This Study

Kreutzer, J.S., Marwitz, J.H., Sima, A.P., Mills, A., Hsu, N.H. & Lukow II, H.R., (2018) [Efficacy of the resilience and adjustment intervention after traumatic brain injury: A](#)

[randomized controlled trial](#). Brain Injury, 32(8), 963-971. This article is available from the NARIC collection under accession number J79743.

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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.