

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

## People with Traumatic Brain Injuries May Face Challenges in Empathizing with Others

*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 accident. TBI can be mild, moderate, or severe. Past research has found that some people with TBI may have trouble empathizing with others. Empathy is the process of caring about, understanding, and sharing another person's feelings, and it is important for healthy relationships. Empathy has two main components: cognitive empathy, or understanding another person's point of view; and emotional empathy, or concern about another person's feelings. People with TBI may have difficulties with both emotional and cognitive empathy. Past research has shown that among people without TBI, women tend to report higher levels of cognitive and emotional empathy than men.

In a recent NIDILRR-funded study, researchers looked at cognitive and emotional empathy levels reported by men and women with TBI compared to their peers without TBI, as well as how their empathy was described by people close to them. Researchers wanted to find out whether men and women with TBI reported having lower empathy than their same-sex peers without TBI and whether there were more problems with cognitive or emotional empathy. The researchers also wanted to find out whether the men and women with TBI were described by others as having lower empathy than the participants reported themselves.

Researchers conducting a Controlled Study of Affect Recognition Training for Individuals with Traumatic Brain Injury gave questionnaires to 160 people with severe TBI who were enrolled in a larger study. The participants were 21-65 years old, and all had had their TBI for at least a year. The questionnaires included 14 questions where the participants rated themselves on how well they could understand others' point of view (cognitive empathy) and how much they felt compassion, warmth, and concern for others (emotional empathy). The participants' self-rating scores were compared with average scores on the questionnaire for men and women without TBI. In addition, each participant named one "observer", a person who knew them well, such as a family member, friend, or caseworker, who rated the participant's empathy by responding to the same questions.

The researchers found that:

- Both the men and women with TBI rated their cognitive empathy lower than the average ratings for men and women without TBI.
- The women with TBI also rated themselves lower on emotional empathy than the average for women without TBI. The men with TBI did not rate themselves lower on emotional empathy than the average for men without TBI.

- The men and women with TBI rated their cognitive and emotional empathy at similar levels. Both the men and women with TBI rated themselves lower on cognitive empathy than on emotional empathy.
- The gap between women with and without TBI was larger than the gap between men with and without TBI, even though the men and women in this study rated their emotional and cognitive empathy at similar levels. This was because women without TBI rated themselves higher than men without TBI.
- The observers rated both male and female participants lower on cognitive empathy than the participants rated themselves.
- The observers rated the male participants lower on emotional empathy, compared with how the male participants rated themselves, while the observers rated the female participants about the same as the participants rated themselves.

The authors noted that, after a TBI, people may find it more difficult to understand another person's point of view or to feel what another person is feeling. Although men and women may encounter similar challenges with empathy, women may be judged more harshly in relationships if they experience a decrease in empathy, because women are often expected to be more aware of other people's feelings and viewpoints. In this study, problems with empathy seemed to be more apparent to individuals close to the participants than they were to the participants themselves. This can make it challenging to manage social relationships. Future research may be useful to develop and test programs that can help people with TBI build their empathy and relationship skills.

#### [To Learn More](#)

The Model Systems Knowledge Translation Center (MKSTC) features a range of resources on TBI including:

- Factsheet on [emotional problems after TBI](#)
- [Factsheet on cognitive problems](#)
- [Hot topic collection on relationships after TBI](#)
- [TBI Infocomic](#) on emotional changes after TBI

The [National Resource Center for Traumatic Brain Injury](#) hosts articles, Frequently Asked Questions, and a catalog of materials for people with TBI as well as the professionals who work with individuals and families living with TBI

[Brainline.org](#) is a service of WETA and features many resources for individuals, families, and professionals on living with TBI.

#### [To Learn More About this Study](#)

Zupan, B., Neumann, D., Babbage, D., and Willer, B. (2018) [Sex-based differences in affective and cognitive empathy following severe traumatic brain injury](#). *Neuropsychology*, 32(5), 554-563. This article is available from the NARIC collection under Accession Number J79338.

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