

TRAUMATIC BRAIN INJURY

Telerehabilitation treatments for children and youth with traumatic brain injuries (TBI) and their families...

| What research is available?

There are 14 studies on different available telerehab-treatments.

| How strong is the research behind these treatments?

While there are 10 studies of high and moderate research quality, 4 studies are of low research quality.

Telerehabilitation is an emerging and a rapidly growing field. More high-quality research is on its way. We are dedicated to update the available information with the most recent findings.

| Who provides these treatments?

These telerehab-treatments are provided by different specialists including:

- Psychologists
- Paraprofessional coaches
- Multidisciplinary teams of different professionals (e.g., occupational therapists, speech language pathologists).

| What is the involvement of the clinician in these treatments?

Clinicians are mainly actively involved in these telerehab-treatments. In other words, they are present and engaged with you and/or the child in every therapy session.

| How are these treatments provided?

In most cases, telerehab-treatments are provided through videoconferencing by using different platforms (e.g., Skype, Zoom, or other video calls options). Other ways included self-directed online learning and phone calls.

| Who receives these treatments?

Telerehab-treatments are provided mostly directly to parents of children with TBI or the child alone. Fewer treatments engaged both the child and their parent together in their approach.

| What are the goals of these treatments?

Most of these telerehab-treatments focus on improving both, child and parent-related outcomes including:

- Parent's...
 - Abilities and interaction skills with their child
 - Positive parenting skills
 - Family functioning after TBI
 - Psychological distress
 - Management of challenging behaviors
- Child's...
 - Gross motor capacity and performance (e.g., jumping)
 - Executive functions (e.g. planning an activity and sequencing events)
 - Child behavior
 - Problem-solving
 - Communications skills
 - Self-regulation
 - Anger management
 - Self-management
 - Education
 - Social participation

| Does it work?

Yes! Telerehab-treatments are shown to work for children and youth with TBI and their families.

For instance, telerehab delivered by psychologists, a multidisciplinary team, and paraprofessional coaches were shown to be **more effective** in improving numerous skills and abilities among parents and children than when family receives:

- No treatment
- Self-directed online learning (passive web)

It is important to note that no studies showed that the telerehab-treatments were less effective (than other interventions) or detrimental.

| Are there any side effects/risks?

If your medical and rehabilitation team have cleared you and/or your child to engage in telerehabilitation, there are no specific associated risks or side effects. Your rehabilitation professional will help you and your child to perform the therapy safely and effectively.

However, it is important to relay any concerns and/or questions to your rehabilitation professional because telerehabilitation is a relatively new approach and it is different from the traditional face-to-face method. For instance, sometimes, technical issues (e.g., access to suitable technology such as a computer or a smart phone, internet connection, the platform that is used) might come up. We encourage you to discuss these and other issues with your rehabilitation specialist to promote best results and optimize your therapy sessions.

| How many treatments are necessary to make progress?

On average, improvements were noted following telerehab-treatments that were provided for 30-60 minutes, once per week or bi-weekly, for about 10-14 weeks.

However, every child's needs and progress journeys, as well as parents' resources, preferences, and availabilities are different.

In collaboration with your rehabilitation professional, you can determine the duration and frequency of tele-treatments that are most optimal and suitable for you and your child.

| Is this appropriate for me and my child?

Telerehab could be a great option for certain interventions that are feasible to be delivered and received virtually.

Children with TBI aged anywhere from about 3 to 18 years old, and their families, can benefit from telerehab. However, every child's needs, family's resources, and progress journeys are different.

We encourage that you discuss the appropriateness of telerehabilitation with your health professional.