

Individualized Support Needs and Traumatic Brain Injury

INTRODUCTION

The Brain Injury Association of America (BIAA) reports that annually 1.5 million people will sustain a traumatic brain injury (TBI) with 80,000 people experiencing the onset of long-term disabilities. Currently, an estimated 5.3 million Americans live with disabilities resulting from a TBI. Every 23 seconds one person in America will sustain a traumatic brain injury (BIAA, 2007).

Traumatic brain injury is caused by trauma to the brain, which might occur when the head strikes a hard surface such as a windshield during an automobile accident. This type of "closed" head injury typically results in damage to the entire brain. Trauma also may result from a penetrating injury such as a gunshot wound. This type of injury is called an "open" head injury and may only damage a specific area of the brain. After an injury, the person may be in a prolonged period of unconsciousness or coma, which may result in severe damage to the brain.

Not very long ago, many people who sustained a TBI died. Today, due to advances in medical care, the vast majority of individuals live. Because some degree of healing does occur to the brain post injury, a person may recover various skills and abilities during the first six months to two years post injury. However, many individuals with TBI will experience life-long difficulties as noted in the statistics from the BIAA.

How well the person does post injury will depend on a number of factors. Some of these factors are related to the individual's skills, abilities, and age before the injury. Other factors are related to the severity of the injury; personal, emotional, and social adjustment after the injury; and the level of support received from family members and others.

KEY POINTS

Supported employment has been shown to be an effective approach to assisting individuals with TBI in gaining and maintaining employment. Community rehabilitation providers (CRPs), offering supported employment services, can play an important role in helping individuals enter or re-enter the workforce post trauma. As always, it is important to remember that everyone is unique. The following key points are offered to assist employment specialists in developing support programs for individuals with TBI.

- Each individual with a TBI will have unique mental and physical abilities and challenges based on the type and severity of the injury.

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- The type and intensity of support will vary from person to person depending upon the individual's pre- and post injury skills and abilities, as well as the job tasks, work environment, and existing supports in the workplace.
- The individual's interests, abilities, and support needs should guide the employment process and not the person's disabilities.
- Compensatory strategies can minimize the challenges caused by the TBI.
- Individuals must be involved in the design and implementation of training and support strategies for finding and maintaining employment.
- The natural workplace supports must be identified and facilitated to promote success in the workplace.

CHARACTERISTICS

Some of the more common characteristics associated with TBI are described in this fact sheet. For each characteristic, workplace support examples are provided. Although the characteristics are presented individually, a person may have difficulties in more than one area. Furthermore, a combination of strategies may be needed to promote success in the workplace. Please keep this in mind when developing a support plan for someone with a TBI that is receiving services from your agency.

1. Physical Disabilities

After an injury, a person may experience some physical or motor changes such as difficulty walking, maintaining balance, coordination, and stamina. The individual's hand use may be affected including a decrease in speed, strength, and accuracy. A person's physical ability to speak also can be impacted by a TBI such as slurred speech patterns. Other communication difficulties associated with the area of the brain that was injured will be presented under the communication category.

Strategies: The person who has physical and motor challenges will need workplace accommodations particularly for jobs that require extended periods of standing or hand use. If the person has problems with endurance and maintaining stamina, it may be helpful to initially work part-time or ask for breaks to be broken down into smaller increments. Examples of supports include but are not limited to the following:

- Divide a 30-minute break into three, 10-minute breaks that are spread out over a block of time.
- Fabricate a stand to help the person maintain balance.
- Arrange opportunities to alternate sitting and standing while performing the task.

- Negotiate completion of a task from a seated rather than standing position.

It may also be useful to discuss sleep patterns and affects of medications on alertness and energy prior to the job search. Sometimes, physicians can assist with helping the person improve sleep and/or change the type or time of the medication to enhance energy levels.

If hand use is an issue, look for other alternate ways that the job duty can be performed. Something as simple as rearrangement of materials or the workspace can make physical movements less difficult. Technology advancements have made it possible for individuals with physical disabilities to perform many tasks that were once impossible. Devices can be made that specifically assist a person in physically completing job duties. A vocational rehabilitation counselor may fund a visit to the job site by a rehabilitation engineer. This is recommended, particularly if the individual is having difficulty physically completing the various assigned job duties. Also remember, that an alternative job duty could be negotiated with the employer if the individual is still having difficulty performing an essential function of his or her job after an accommodation has been implemented.

2. Communication

Communication issues may result from a loss of motor skills that affect the ability to execute talking as mentioned above or damage to the speech and language centers of the brain. If the person has difficulty understanding what other people are saying, this is referred to as receptive aphasia. When the individual has difficulty expressing him or herself, this is called expressive aphasia.

The person with expressive aphasia may be able to understand what people say and read what is written but have difficulty verbalizing or writing thoughts. The person with receptive aphasia will have difficulty understanding the information conveyed. Depending on the severity and location of the injury, an individual may have only one type of aphasia or both. This can lead to miscommunication and frustration.

Strategies: The individual with a TBI should consider matching his or her communication support needs to a workplace when conducting his or her job search. For example, a customer service representative is required to constantly communicate with clients over the telephone. An individual with either expressive or receptive aphasia may have difficulty working in this type of position.

However, remember that many positions are performed in different ways. For example, some customer service representatives serve clients over the Internet and communicate in writing via email. Or, consider a teacher who can no longer give long lectures but excels working one-to-one with students in a small classroom tutorial setting. Education of business personnel who work with an individual with TBI on best ways to communicate may also be useful. Sometimes language deficits are so subtle that they are not visible, yet if misunderstood lead to problems at work. If this occurs, the worker with the TBI should always be involved with determining how and what should be conveyed.

3. Perception

Perceptual problems can impact the person's ability to function in the workplace successfully. This may include difficulties judging distances or recognizing certain things. It can also result in apraxia, an inability to perform skilled movements. The person knows and understands what he or she wants to do, but the brain cannot organize the movements necessary to do it. This may make everyday tasks such as folding a towel, putting a belt through loops, or using eating utensil difficult for the individual. It is not unusual for a person to have difficulty performing tasks that were easily done pre-injury leading to frustration and anger.

Strategies: Oftentimes, assistive technology or devices can make a task doable. Or, the steps followed to perform a task may be modified in a way that allows the worker to do it without sacrificing the quality and speed needed to get the job done. Brainstorm with the individual as well as the employer, coworkers, and other employment specialists to identify accommodations that allow the individual to be successful.

4. Cognitive Challenges

The traumatic brain injury can also affect a person's ability to think. After a TBI memory capabilities are often damaged including both short and long-term memory. Short-term memory loss affects learning new skills, as a person will have difficulty recalling events and information that just occurred. Long-term memory affects the ability to recall past events. Verbal and spatial memory may be affected too. Verbal memory refers to information heard or read. Spatial memory refers to recalling information seen in three dimensions like height, width, and depth.

To learn and carry out a task, a person needs to be able to sustain concentration on the task at hand. After a TBI, attention and concentration deficits

are common. High levels of cognitive processing like problem-solving and abstract reasoning may be affected. After an injury, a person may not be able to solve problems. Not being able to self-correct performance may lead to errors. This is further complicated by a lack of self-awareness and an inability to benefit from constructive feedback resulting in errors being repeated. Organizing a logical sequence of events to accomplish a task may be affected. Again, all can greatly impact the capacity to learn post injury.

Strategies: As always, the employment specialist must be aware of the person's abilities and strengths. Job tasks also should be assessed to determine what memory skills are needed. This information can assist in the identification compensatory memory strategies to assist the worker "remember" and learn what to do. For example, a person with good visual and spatial memory skills may benefit from being shown how to complete job duties rather than being told how to do them. Individuals with good verbal memory may learn best when told how to do something. Strategies to assist with memory include some of the following examples.

- Use a checklist that identifies a sequence of job duties.
- Follow a flow chart to reach a decision about what to do.
- Make an association between a person's face and his or her name to recall it at a later time, and
- Remove distractions, like noises or visual stimuli.

For example, a door may be shut to cut down on visual movements and sounds in a hallway or earplugs worn to cut back on manufacturing machine noise in a warehouse. Sometimes looking for jobs that rely on learned tasks performed prior to injury may be helpful. If unfamiliar tasks are to be performed, skills training may be needed. When problem solving is required, a method specific to issues faced at the job may help. Sometimes, depending upon the natural workplace supports of the job and arranging for problem solving assistance with a supervisor or coworker may suffice.

5. Changes in Behavior

After a TBI, the person may act socially inappropriate. The individual with a TBI may also lack self-control and awareness of social rules. To further complicate this matter, the individual may not understand how he or she has changed or is perceived by others.

For example, a worker may repeatedly ask a co-worker for a date even if the coworker has rejected the offer several times. Or, the worker with a TBI may invade another person's personal space while informally chatting in the break room. The worker with a TBI may become frustrated with a sudden change or an inability to do something, which may lead to a temper outburst. These problems are due to damage to the brain and should not be perceived as an "attitude" problem. Such difficulties can lead to miscommunication, agitation, anger, frustration, and social isolation.

Strategies: Instruct the person on more appropriate behaviors. This may involve the use of some type of compensatory strategy to help the person recall what to do. It also requires teaching the new skill via modeling and other techniques suitable to the situation. If a problem behavior continues to persist, it may be helpful to explain the potential negative consequence (i.e. asking person out may be seen as sexual harassment, invading space may result in people avoiding the worker, and so forth). If the person becomes angry, stay as calm as possible. Then redirect the person's attention away from the source of frustration. Once the person regains his or her composure provide some constructive feedback about the effect of the behavior on others. Always model appropriate behavior and give positive feedback.

SUMMARY KEY POINTS

- Supported employment can be used to assist individuals with TBI to obtain and maintain employment. Services must be individualized and "customer driven".
- Every person's injury and recovery is unique due to reaction to injury, pre-injury personality, past experiences, learning style, severity of injury, and time since injury.
- An array of physical, cognitive, and emotional problem may occur after an injury. Some of these challenges may be difficult to see, which makes it harder to understand and explain to others. Over time, some changes may resolve, but others remain with the person throughout life.
- Individuals with TBI can work. Potential supports should be considered whenever the jobseeker with a TBI is considering pursuing a position. When thinking about workplace supports, consideration must not only be given to the job tasks but also the environment in which they will be performed. Once the person becomes employed, other workplace support needs should be evaluated and developed on the job.
- Change is inevitable in the workplace. Supported employment allows for an ongoing assessment of support needs throughout the person's employment.

ONLINE RESOURCES

Brain Injury Association of America (BIAA)
<http://www.biausa.org>

Founded in 1980, BIAA is the leading national organization serving and representing individuals, families and professionals who are touched by a life-altering, often devastating, traumatic brain injury. Together with its network of more than 40 chartered state affiliates, as well as hundreds of local chapters and support groups across the country, the BIAA provides information, education and support to assist the 5.3 million Americans currently living with traumatic brain injury and their families. Call the Brain Injury Association of America at 1.800. 444.6443 for information and resources and/or visit their website.

National Resource Center for Traumatic Brain Injury
<http://www.neuro.pmr.vcu.edu>

The mission of the center is to provide relevant, practical information for professionals, persons with brain injury, and family members. Nationally recognized experts developed many of the products. The Center has more than 20 years of experience developing intervention programs, assessment tools, and investigating the special needs and problems of people with brain injury and their families.

REFERENCES

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