Systematic Approach to Social Work Practice: Working with Clients with Traumatic Brain Injury

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Acknowledgements

Special Thanks to those who participated in the conceptualization and review of this Manual: Patti Aldredge, MSSW; Cheryl Amoruso, LMSW, LCDC; Shawn Brossart, LMSW; Deanna Burrell, Ph.D.; Jason Ferguson; Mary John, LMSW, CCM; Patsy Johnson, LMSW; Patrick Leung, Ph.D.; Marie Silva, LMSW-ACP; and Lynne C. Davis, Ph.D.

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This program is sponsored by a grant from the National Institute on Disability and Rehabilitation Research, U.S. Department of Education, for the Rehabilitation Research and Training Center on Community Integration of Persons with Traumatic Brain Injury (Grant #: H133B031117) at TIRR Memorial Hermann.

INTRODUCTION

Traumatic brain injury (TBI) is a pervasive public health problem in the United States, as well as worldwide. Given that the estimated incidence of TBI is 1.4 million new injuries per year in the United States,[1] with approximately 5.3 million individuals living with significant disability as a result of TBI,[2] it is very likely that social workers in the healthcare arena will encounter at least one client who has sustained a traumatic brain injury in their work experience. Despite the high incidence of TBI, information to help guide the social worker who may not have had education or training regarding issues relevant to working with clients with TBI has not been readily available.

Specialized services are often available for those who experience TBI through trauma centers and neurosurgical intensive care units in major medical hospitals, rehabilitation hospitals with specialized units for brain injury rehabilitation, outpatient comprehensive brain injury rehabilitation programs focused on community re-entry, transitional living centers for persons with brain injury, and community-based brain injury programs. Social workers employed in these various settings will likely become "experts" in working with those with TBI. Training for such individual social workers may happen "on the job," and through inservices, seminars, and individual study.

While a subset of individuals affected by TBI will receive specialized brain injury care in one of the settings mentioned above, a great number of individuals will receive their care after injury in general medical settings, in a general rehabilitation unit with no special expertise in working with issues related to TBI, in primary care settings, and in social service settings. In these situations, social work professionals encountering individuals with TBI will be less likely to have access to training or educational materials that may assist them in the care of those with TBI. This manual has been developed to help fill this gap, by serving as a resource to social workers who encounter clients with traumatic brain injury in their clinical practice. The goal of this educational tool is to assist social workers to feel more comfortable and confident in their clinical interactions with clients with brain injury, to increase knowledge regarding TBI, to outline skills that are useful in working with clients with TBI, and to highlight resources that may be of use to clients with TBI and their family members. Ultimately, the aim of this training tool is to improve the overall quality of care that individuals with TBI will receive in various healthcare settings.

In the initial sections of this manual, general information about TBI and clarification of some terminology is presented. The remainder of the manual has been organized in accordance with a problem-focused model of practice, as outlined by Compton and Galaway (1989)[3] in their classic text "Social Work Processes." It is hoped that this structure will enhance the applicability of this material to your clinical practice.

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GENERAL INFORMATION: BRAIN INJURY 101

This section is intended to provide some general information about traumatic brain injury and to help clarify some of the confusing terminology that you may come across in your review of medical records and in your independent reading about brain injury.

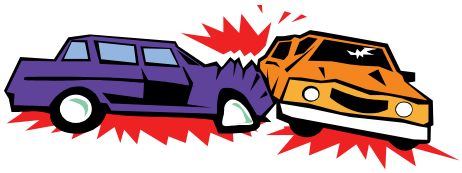
The following Frequently Asked Questions (FAQs) will try to address some of the most commonly encountered terms and general issues. More detailed information about assessment and intervention approaches will be presented in future sections of this manual.

TRAUMATIC BRAIN INJURY FAQs:

What is a traumatic brain injury (TBI)?

A traumatic brain injury is also referred to as a **TBI**. A TBI occurs when a mechanical force is applied to the head and affects brain functioning. The mechanical force can consist of a blow to the head (such as from an assault, a fall, or when an individual strikes his/her head during a motor vehicle accident) or from a rapid acceleration-deceleration event (like a motor vehicle accident). It is possible for the brain to become injured even if the head has not directly struck or been struck by another object. The brain can become injured whether or not the skull is fractured. The most common causes of TBI include the following:

- Falls (28%)
- Motor vehicle-traffic crashes (20%)
- Struck by/against (19%)
- Assaults (11%).[1]
- Blasts are a leading cause of TBI for active duty military personnel in war zones.[4]



We know that brain functioning has been disrupted if an individual has a change in their level of consciousness after injury or in their ability to be alert and/or fully oriented after injury. After a TBI, some people are “knocked out” or lose consciousness. This can be for a short time (seconds to minutes) or for a much longer time (days to weeks). This longer period of time is often referred to as a *coma*. On the other hand, some people who experience a mild TBI may not lose consciousness at

all. Instead, they may feel dazed, confused, or "out of it" for a period of time. For many people who experience a TBI, there may be loss of memory for the events just before and for a period of time after the injury. Loss of memory for events preceding the injury is called ***retrograde amnesia.*** The period of time when memories are affected after a TBI is called ***post-traumatic amnesia.***

♦ How does the brain become injured?

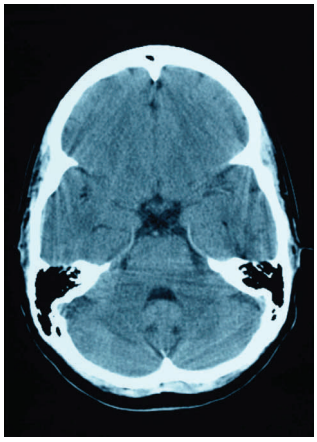
Injury to the brain can happen in many different ways. There are two main types of TBI: Closed TBI and Open TBI.

Closed TBI happens when the brain is hurt without anything (like a knife, a bullet, or other object) going through the skull. Other terms you may encounter for this type of injury include *brain injury due to blunt-force trauma* or *non-penetrating TBI.* There are many ways that the brain can be injured in a closed TBI.

- When force is applied to the head, the brain can shake around inside the skull. Think of the brain being like jello in a bowl. If you shake the bowl quickly and then stop it, the jello bounces around against the inside of the bowl. Just like jello, the brain can bounce against the inside of the skull. If the head stops quickly after it has been moving, the brain can hit the inside of the skull. When this happens, the brain can get a bruise. Sometimes the brain can be bruised both at the point of impact (*a coup injury*) and at a point directly opposite to that impact (*a contre-coup injury*). This is because the brain can "bounce" within the skull such that it will bruise both on the side where it has been struck and on the opposite side where the brain has "bounced" back after the impact.

- When the brain is shaken inside the skull, other injuries can happen. The brain is made of millions of nerve cells called *neurons*. Each nerve cell has long and thin fibers called *axons*. These axons are important for the transmission of messages from one neuron to another. These fibers are very small and cannot be seen by the human eye. Some of these nerve fibers can be stretched or broken when the brain is shaken. This stretching and breaking of axons may be seen throughout the brain and is called *diffuse axonal injury*. Sometimes a person can have an injury to the brain, even when the head is not hit by anything. The force of the brain moving inside of the skull can cause these stretching or tearing injuries to the nerve fibers. If many of these fibers are damaged, the injury can sometimes be seen with neuroimaging tests, like a CT scan or MRI scan.

- The brain has lots of blood vessels in it, including both arteries and veins. If there is sufficient force applied to the head, these blood vessels can tear and bleed. Bleeding will show up on tests, like a CT scan or MRI scan. A collection of blood in the spaces between the *meninges* (layers of tissue surrounding the brain) and the skull is called an *epidural hematoma.* One that occurs between the outer layer of the meninges and the second layer of meninges is called a *subdural hematoma.* Blood collection below the second layer of meninges is called a *subarachnoid hemorrhage.* Finally, blood that collects within the brain tissue itself is called *intracerebral hemorrhage.* If there is only a little bleeding, it will usually stop on its own. The blood vessels will heal, just like any cut on the body heals. If the bleeding is severe, doctors may recommend treatment, like surgery, to remove the blood.



- Sometimes extra fluid will build up near the hurt brain. This causes swelling or *edema*. Think of what happens when you hit your arm on something. You may see swelling in the injured area. This is because the body sends extra fluid to the injured body part to protect it and help with healing. This same thing can happen to the injured part of the brain.

- If too much pressure builds within the skull due to edema or to the accumulation of blood, the individual is said to experience *intracranial hypertension.* This condition can cause additional damage to brain tissue if it is unable to be controlled and may even be life-threatening.

- In addition, after injury many biochemical changes can take place that can cause further damage.

Open TBI happens when something penetrates through the skull and hurts the brain. Other terms you may encounter for this type of injury include *penetrating TBI.* Things like a gunshot wound to the head, a stab wound, or a severe skull fracture can cause an open TBI.

- In an open TBI, most of the damage happens to the part of the brain that was cut or bruised by the object penetrating the skull.

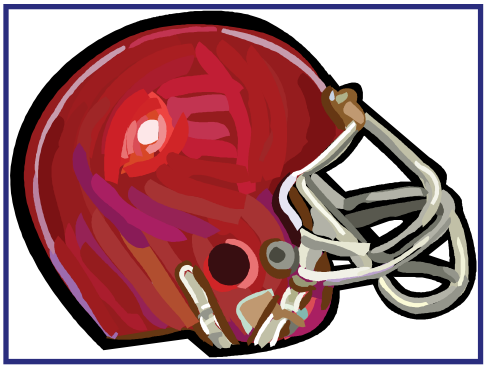
- Just like in closed TBI, additional injury can occur due to bruising, bleeding, or swelling.

♦ What is the difference between a head injury and a TBI?

A head injury happens when a mechanical force is exerted toward an individual's head. Many things can cause a head injury. For example, a car accident, a fight, a fall, or other events can all cause a head injury.

- Most of the time, a head injury does not cause lasting problems. This is because the brain is well protected. The brain is surrounded by fluid, called cerebral spinal fluid (CSF). This fluid acts as a shock absorber. There are also several coverings around the brain. These coverings include the hair, the scalp, and the skull. There are also layers of tissue that cover the brain called *meninges*. These protective layers will often keep the brain from getting hurt. Often, a bruise, swelling of the scalp, or a cut to the scalp may be the only injury.

- Sometimes the force of the blow to the head is greater. The skull can fracture or break. The skull is like a "helmet" that protects the brain. When the skull breaks, it lessens the force of the blow. This may help keep the brain from getting hurt. However, sometimes the force exceeds the skull's ability to protect the brain, and the brain itself can be injured. Given sufficient force, the brain can become injured whether or not the skull is fractured.



When the force that resulted in the head injury affects brain functioning, such as by reducing level of consciousness or by causing a period of confusion, the injury is called a traumatic brain injury. Only a subset of head injuries will result in TBI.

- For example, if you bump your head on the roof of your car, you probably will not injure your brain. If the only consequence of this injury is a sore head, no brain injury has occurred. This is a head injury, but not a traumatic brain injury.

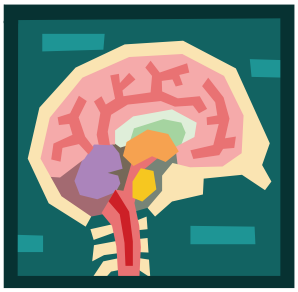
- However, if your car is struck by another vehicle and you have trouble recalling what happened over the first 24 hours after the injury, you may have experienced a TBI.

What is the difference between traumatic brain injury (TBI) and acquired brain injury (ABI)?

Increasingly, as one reads news articles, consumer-focused periodicals, and scientific publications about brain injury, the term "Acquired Brain Injury" or "ABI" has gained prominence. So, what distinguishes a TBI from an ABI?

- Traumatic brain injury (TBI) refers specifically to injuries to the brain that are the result of mechanical force. As described above, falls, motor vehicle accidents, assaults, and falling objects may cause a traumatic brain injury.

- Acquired brain injury (ABI) is a more general term that refers to any acquired (i.e., not developmental) injury to brain tissue. Traumatic brain injury is just one type of acquired brain injury. All traumatic brain injuries would be considered acquired brain injuries. However, not all acquired brain injuries should be considered traumatic brain injuries. Although not an exhaustive list, other causes of brain injury that would be classified as acquired brain injuries include:

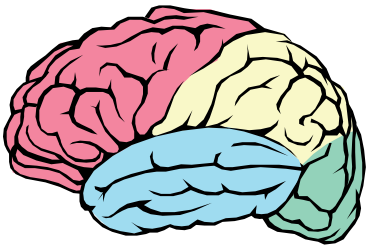


- **Stroke** (or "brain attack") is when brain cells are damaged or die due to interruption of blood flow to the brain. There are two main types of strokes: 1) blockage of a blood vessel in the brain due to either a clot or a buildup of fatty deposits and cholesterol in the walls of blood vessels; and 2) breakage of a blood vessel in the brain with bleeding from the blood vessel.

- **Cerebral aneurysm** is a weak or thin spot on a cerebral blood vessel wall that can break under pressure and result in a bleed or hemorrhagic stroke.

- **Arteriovenous malformation** (also known as AVMs) are defects of the circulatory system that typically involve a collection of blood vessels with abnormal connections. Such malformations are usually present from birth and can occur in various areas of the body, including the brain. Typically, AVMs are non-symptomatic. However, a certain percentage of these cerebral malformations can cause problems such as headache, seizure, and other neurological symptoms. These occur either through bleeding from the AVM, through blockage of blood flow, or due to pressure effects on surrounding brain tissue.

- **Brain Tumor** is a mass or growth of abnormal cells within the brain. These can be benign (noncancerous) or malignant (cancerous), slow-growing or fast-growing, and can be primary (the first site of cancer) or metastatic (a second site of cancer that has spread from somewhere else in the body).



- **Brain abscess** is an uncommon, but serious or life-threatening infection. An abscess is a mass of immune cells, pus, and other material due to bacterial or fungal infection.

- **Cerebral hypoxia** occurs when there is a decrease of oxygen supply to the brain even though there is adequate blood flow. Drowning, strangling, choking, suffocation, cardiac arrest, head trauma, carbon monoxide poisoning, and complications of general anesthesia can create conditions that can lead to cerebral hypoxia. Brain cells are extremely sensitive to oxygen deprivation and can begin to die within five minutes after oxygen supply has been cut off.

- **Radiation necrosis** is a focal structural lesion that usually occurs at the original tumor site and is a potential long-term central nervous system (CNS) complication of radiotherapy or radiosurgery. Radiation necrosis can occur when radiotherapy is used to treat primary CNS tumors, metastatic disease, or head and neck malignancies. It can occur secondary to any form of radiotherapy modality or regimen.

♦ What is the difference between a mild, moderate, and severe traumatic brain injury?

When an injury is referred to as mild, complicated mild, moderate, or severe, we are referring to the initial injury itself – not the eventual outcome that an individual with TBI may experience. The level of severity of the initial injury can be related to many different variables. Such variables include how much force was involved, how hard the head was struck, how heavy the object was that struck the head, and how fast the head or object was moving at the time of injury. It is possible that a person with an initial rating of mild TBI may experience a poor outcome that includes areas of moderate to severe difficulty. Likewise, an individual who presents initially with a severe injury may experience a very good outcome. However, in general, initial injuries with greater severity will be associated with poorer outcomes.

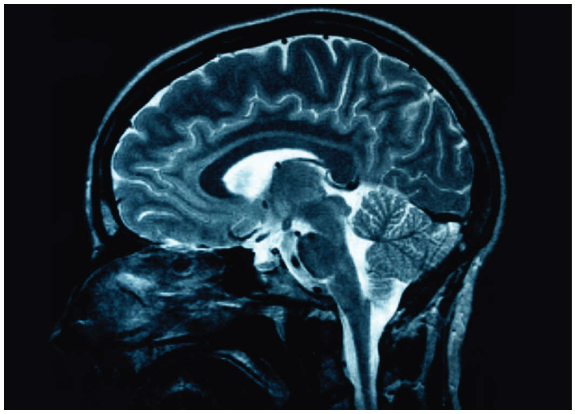
As soon as healthcare professionals encounter an individual with TBI, an attempt is made to grade the severity of the injury. The level of severity is determined to assist with initial triaging and to help with planning treatment. There are several factors that are considered when assessing injury severity:

- **Loss of Consciousness (LOC):** One thing that the medical team looks at is called loss of consciousness. After a head injury, an individual may be “knocked out” or lose consciousness. The longer this period of unconsciousness, the more severe the injury. In an acute hospital setting, the medical team will be tracking consciousness on an hourly and daily basis. Frequently, such tracking is done using a scale called the Glasgow Coma Scale (GCS), which is described below.

- Glasgow Coma Scale (GCS):[5] The GCS is a scale that is utilized in many hospital settings throughout the United States and the world. It was developed to assess the level of responsiveness for individuals with TBI. The GCS evaluates three things: eye opening (can the individual open his/her eyes spontaneously?), motor responses (can the person move when asked or when responding to painful stimuli?), and verbal responses (can the person speak and is the person oriented?). The GCS score can range from 3 to 15. The higher the GCS score, the less severe the injury. The lower the GCS score, the more severe the injury. The medical team completes this scale at the scene of the injury if the individual is transported by EMS. The GCS is also completed upon arrival at the emergency room. If the individual requires hospitalization due to the injury, the GCS may be conducted hourly and/or several times daily until the individual is consistently responding as alert and oriented to person, place, and time. Additional details regarding the GCS score can be found on page 41.

- Post-Traumatic Amnesia (PTA): Injury severity can also be judged by looking at what is called post-traumatic amnesia. People may be confused or disoriented for a period of time after a TBI. They may not know where they are for minutes, hours, or even days. They may not be able to accurately state the day, date, time, month, or year. This period of time is called post-traumatic amnesia or post-traumatic confusion. It is a common experience for persons with TBI. During this time, people may be unable to make new memories. They may not remember this period of time later. In general, the longer the period of PTA, the more severe the injury has been. In acute hospital settings and in rehabilitation settings, a record of orientation is typically conducted on at least a daily basis. You may find this in a description from the treating physician or nursing staff, and you may find it in a report by the neuropsychologist or therapy staff.

Based on information obtained from these variables (LOC, GCS, and PTA) and from results of medical testing, like a CT scan or MRI of the head, the injury may be classified as one of the following:



- Uncomplicated Mild
- Complicated Mild
- Moderate
- Severe

- Mild TBI

  - A person with a mild TBI will have a loss of consciousness for 30 minutes or less. GCS scores at the time of injury range from 13 to 15. This means that the person can talk, can follow commands, and can open their eyes when asked. Another name for a mild traumatic brain injury is a "concussion."

  - Sometimes, the GCS score can be lower at first. But, this low score may be due to things other than the head injury. Medication effects or having had alcohol or drugs before the injury can lower the GCS score. However, the person quickly begins scoring in the "mild" range after the effects of the medications have worn off.

  - Uncomplicated Mild TBI:
    An injury is called "uncomplicated" if the person has a mild TBI and there are NO problems seen on CT scan or MRI of the brain.

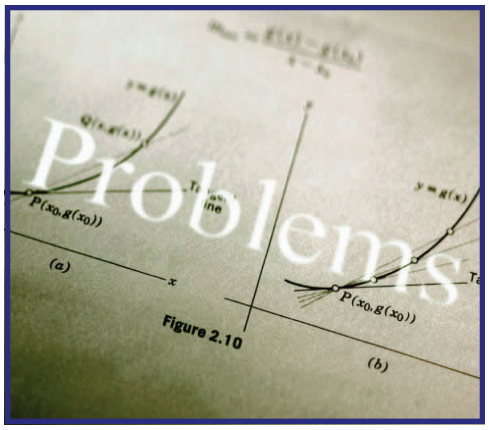
  - Complicated Mild TBI:
    An injury is called "complicated" if the person has a mild TBI and there are abnormalities seen on a CT scan or MRI of the brain. Abnormalities on neuroimaging may reflect bruising of the brain or a collection of blood in the brain. Some research has shown that persons with complicated mild TBI may have longer-term outcomes that are more similar to those with moderate TBI.

- Moderate to Severe TBI

  - GCS scores at the time of injury are lower. Traditionally, GCS scores ranging from 9-12 would be classified as "moderate" injuries, while GCS scores ranging from 3-8 would be classified as "severe" injuries.

  - Someone with moderate to severe TBI may not be able to open their eyes, move on their own, talk, or respond to things or people around them. People with this severe of an injury may have had loss of consciousness for just over 30 minutes or for as long as several days or weeks. They may have post-traumatic amnesia or not remember new information for many days or weeks after they had their TBI. Also, they may not remember days or even weeks before they had their TBI. These patients will usually take longer to recover than patients with a mild TBI. In some cases, some symptoms may be permanent. For a small subset of individuals with severe TBI, responsiveness may be affected for a much longer period of time. For nearly all those who experience moderate to severe TBI, treatment at a rehabilitation hospital is usually recommended and can help recovery.

- What are common sequelae (or consequences) of TBI? What are the common symptoms that people experience after sustaining a mild TBI? What are common symptoms after sustaining a moderate to severe TBI?



The following sections will list potential areas of difficulty that persons may experience after a TBI. While this list is not exhaustive, it does detail the more common areas of difficulty that individuals may face. For each of the sequelae listed, there is an indication of whether the particular symptom is commonly seen following mild, moderate, and severe TBI, or is seen primarily in those with moderate to severe TBI. While we have listed the problems that are typically experienced with varying degrees of injury severity, it is certainly possible that someone with a milder injury may experience symptoms listed as more common for those with moderate to severe injury.

It is important to note that every brain injury is different. The consequences that people typically experience may differ depending on the severity of the injury, the location of the injury (what part of the brain was injured), the mechanism of the injury (high velocity vs. low velocity injury), and other factors.

Somatosensory Issues:

Headaches (Mild, Moderate/Severe):

Headaches are a frequent problem after TBI. These are called *post-concussive* or *post-traumatic headaches*. The pain may be constant, or may come and go over time. Pain can vary from mild to severe. Headaches are one of the more common problems experienced after a mild TBI, but persons with moderate to severe TBI may also experience headaches. They often go away after a few weeks. Sometimes, though, headaches can be a more long-lasting problem.

There are two types of headaches that can happen after a head injury. These are called *tension headaches* and *vascular headaches.*

Tension headaches: These headaches are the most common. They happen when an individual is under stress. They may also happen when the muscles in the neck, shoulders, or jaw are tight. When this happens, pain can transfer to the head. Tension headaches feel like a dull, steady pain. These types of headaches can last for a long time, but they don't have to be a long-lasting problem. Relaxation may help to get rid of tension headaches.

Vascular headaches: These kinds of headaches are sometimes called *migraine headaches*. They happen because of problems with the blood vessels around the brain. These kinds of headaches often include throbbing pain. This pain can be on one side or both sides of the head. Associated problems, like nausea and vomiting, can occur. Many people find that bright lights and loud noises make a vascular headache feel worse. Migraine or vascular headaches may last only a short time or may last for many hours.

Fatigue (Mild, Moderate/Severe):

Fatigue is a common problem for all levels of severity of TBI. Such fatigue may not be anticipated, and can contribute to increased difficulties with thinking abilities. With fatigue, persons with TBI may be more likely to be stressed, and may notice more problems such as headache, dizziness, poor concentration, and irritability. Problems with fatigue tend to improve over time; however, individuals with TBI may need more sleep than was typical pre-injury.

Dizziness (Mild, Moderate/Severe):

Some people may feel dizzy after a TBI. An injury to the head can change how the inner ear works. Problems with the inner ear or its connections to the brain can cause dizziness. Often associated with these kinds of problems are a loss of balance, nausea, ringing in the ears, or headaches. Problems with dizziness are fairly common after a mild TBI, but tend to improve over the first few months. For those with more severe TBI, dizziness may also occur and may be somewhat longer lasting. There are treatments for certain causes of dizziness.

Blurred or double vision (Mild, Moderate/Severe):

After TBI, vision can become blurred and sometimes people experience double vision. This tends to get better for most people over time. Sometimes an evaluation by a neuro-ophthalmologist or neuro-optometrist may be conducted.

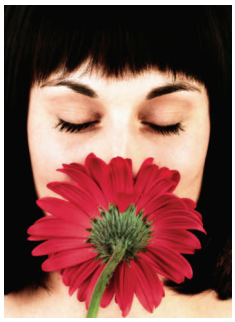
Visual Field Cut (Moderate/Severe):

If the injury causes damage to the optic nerve (the nerve from the eye to the brain) or to visual tracts within the brain (pathways that carry visual information within the brain), a visual field cut may occur. A field cut means that a part of visual space is not being perceived because the pathways by which visual sensory information is relayed to or within the brain have been damaged. For example, some persons may not be able to see information that is on the right side of space from either eye (right visual field cut).

Sensitivity to Noise and/or Light (Mild, Moderate/Severe):

After a TBI, some people find that they are sensitive to noise and/or to light. So, if placed in a noisy setting, like a crowded cafeteria, or in a setting with bright lights, like the fluorescent lights of a hospital or the flashing lights of a dance club, they may feel overwhelmed and uncomfortable.

Trouble with Tasting or Smelling (Moderate/Severe):



Damage to sensory fibers that relay olfactory (smell) information to the brain can occur with a brain injury. The olfactory system is located on the underside of the frontal lobes of the brain and is an area that can be vulnerable to injury. Since the sense of smell is important to our sense of taste, both senses can be affected. Individuals may complain of foods not tasting the same or of needing to add more spices to their food. Some may not be able to smell things like food burning on the stove, leaking gas, or smoke from a fire, so this can be a major safety issue.

Motor Issues:

Hemiparesis/hemiplegia and Spasticity (Moderate/Severe):

If motor pathways or centers have been damaged due to the TBI, an individual can experience weakness on one side of the body. This weakness can be total (hemiplegia) or can be partial (hemiparesis). Persons with hemiparesis often have problems with spasticity. Spasticity is a condition in which certain muscles are continuously contracted. Symptoms can include increased muscle tone, rapid muscle contractions, exaggerated deep tendon reflexes, muscle spasms, involuntary leg crossing, and fixed joints. Weakness and spasticity can interfere with walking and with performing activities of daily living like grooming, etc.

Slowed Performance (Moderate/Severe):

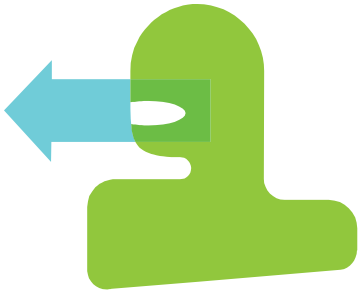
People who experience moderate to severe TBI may have a slowed speed of performance. It may take them longer to accomplish motor tasks, like walking or tying their shoelaces. Writing and even speech can be slowed. Such slowing can be due to problems with motor weakness or can be due to diffuse injury to the brain, which can contribute to overall slowed transmission of nerve signals.

Poor Coordination (Moderate/Severe):

Sometimes persons with brain injury may experience difficulties with coordination. Control of gross and/or fine motor movements may be impaired. This can result in difficulties with activities like sitting, walking, buttoning a shirt, typing, etc. Individuals with coordination and motor control problems may be more unsteady when sitting, standing, or walking; may bump into things; or have trouble picking up things or manipulating them.

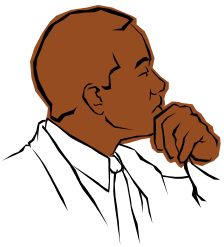
Slurred speech (dysarthria) (Moderate/Severe):

Individuals with TBI may have problems with slurred speech. Articulation can be affected by a variety of factors, but typically involves motor weakness or poor motor control of the muscles associated with the production of speech. Occasionally, this slurring of speech related to motor control difficulties as a result of injury may be misinterpreted by others as intoxication. As a social worker encountering individuals with slurred speech, it is important to ascertain whether a neurological problem related to injury is causal rather than assuming that a substance use condition is involved.



Cognitive Issues:

Attention/Concentration (Mild, Moderate/Severe):

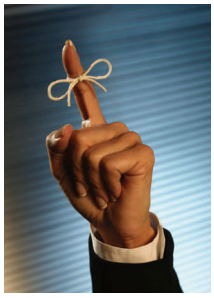


One of the more common difficulties experienced after TBI is decreased attention and concentration. This is a common complaint for those with all levels of severity of injury, and is the most frequent cognitive problem experienced for those with mild TBI. Sometimes what may be described as a memory problem can really be a problem with attention. Individuals may have trouble remembering things because they are not attending to the information well. Here are some common attention problems:

- Trouble focusing attention.
- Easily distracted by noises or visual information that wouldn't have bothered them before (e.g., trouble listening to a conversation in a crowded restaurant because they are distracted by other people talking and moving around).
- Trouble concentrating while reading.
- Difficulty doing more than one thing at a time (e.g., watching T.V. and cooking a meal)
- Difficulty "switching gears" or changing focus from one thing to another (e.g., may continue to do things the wrong way even after you explain why things should be done a different way).
- Persons with attention difficulties may be observed to disagree about what you or someone else said due to missing the information initially.

Memory (Mild, Moderate/Severe):

Many people have some type of memory problem after injury. One of the areas of the brain that is considered important for memory functioning, the anterior temporal lobes, is particularly vulnerable to injury from TBI. Most people can remember information that they knew well before injury, but have trouble learning and remembering new information. Here are a few of the most common types of memory difficulties that may be experienced:



- Forgetting appointments.
- Forgetting peoples' names.
- Needing to have things repeated many times.
- Taking longer to learn new information.
- Forgetting things very quickly.
- Frequently losing or misplacing things (like keys, wallet, etc.).
- Repeating questions or the same story over and over again.

Slowed Information Processing Speed (Mild, Moderate/Severe):

The most common cognitive problem noted after TBI is slowed processing speed, particularly for those whose injuries occurred due to a high velocity event (like a car accident). This includes:

- Taking longer to answer questions.
- Taking longer to understand things he or she understood easily before.
- Taking a long time to react to things (this may be dangerous in emergency situations or when driving).

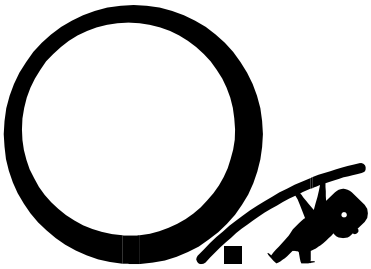
Visuospatial Difficulties (Moderate/Severe):

Sometime persons with TBI experience difficulty with visuospatial functioning. This can involve problems such as:

- Difficulty attending to things on one side, usually the left side.
- Bumping into things, usually on the left side.
- Difficulty recognizing shapes and telling the difference between shapes.
- Difficulty finding their way around, especially in new places.

Problem-Solving Difficulties (Moderate/Severe):

After TBI, some individuals have problems generating solutions to everyday or complex problems. This problem falls within the realm of executive functioning, which is often associated with damage to the prefrontal cortex and/or its connections to the rest of the brain. Your client may experience difficulties such as:



- Making quick decisions without thinking about what will happen.
- Getting stuck between different choices, unable to pick between them.
- Getting stuck on one idea, unable to consider other choices.
- Approaching problems in a way that does not make sense.

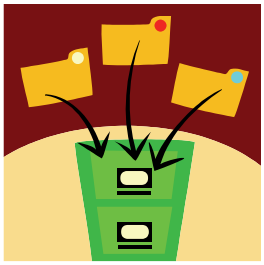
Language/Communication (Moderate/Severe):

Unlike persons with stroke, persons with TBI tend to have fewer problems with basic language abilities, like understanding language or being able to speak. Some individuals may experience difficulties with basic language problems, but the more common difficulties faced are with social communication abilities. Such difficulties can include:

- Difficulty finding the right words to tell others what they want to say.
- Talking around a topic, never really getting to the point; getting off topic when telling a story or answering a question.
- Trouble understanding what others say to them.
- Difficulty keeping up with a conversation especially if talking to more than one person.
- Difficulty starting a conversation.
- Talking about topics that are too personal or offensive to others.

Organizational Difficulties (Mild, Moderate/Severe):

Organizational difficulties are also a common problem after TBI. Such problems may result from inattention and/or executive functioning problems. They include:



- Difficulty organizing their time to get things done (for example, may tell someone they can be at a party at the same time they have a doctor's appointment).
- Trouble setting goals, planning the correct steps to reach a goal, or completing the steps to reach a goal.
- Trouble completing tasks in the correct order (for example, does not put soap in the washing machine when washing clothes).
- Trouble getting ready for daily appointments, school, or work.

Reasoning and Judgment (Moderate/Severe):

Problems with reasoning and judgment may also be experienced after TBI. These problems are often associated with damage to the prefrontal cortex and/or its connections to the rest of the brain. Such difficulties may include:

- Trouble thinking in abstract terms (for example, may have trouble applying a strategy used in one situation to other similar situations).
- Making literal or "concrete" interpretations (for example, may interpret the phrase "Go take a hike" as taking a long walk in the forest).
- Showing poor judgment in real-life situations (for example, loaning a significant sum of money to a casual acquaintance or sharing a bank account PIN number).
- Trouble making decisions that are in his or her long-term best interests.
- Poor safety awareness (for example, leaving a public place with a person he or she just met).

Behavioral/Emotional Issues:

Decreased Initiation (Moderate/Severe):

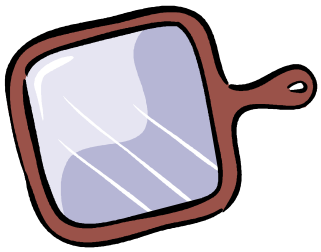
After TBI, some individuals may have trouble getting started with activities. While they may express interest in engaging in activities, the ability to "get going" is affected. Problems with initiation can often be misinterpreted as laziness or as noncompliance. However, initiation difficulties can occur as a result of damage to neural systems that are involved in activating motor sequences. Initiation problems can be observed as:

- Seeming to sit all day staring at the television.
- Doesn't seem interested in the things he or she liked to do before.
- Doesn't think to bathe or brush their teeth unless reminded.
- May not think of ideas for social activities, or if has ideas, may not get started with making any plans.
- Knows what needs to be done, but just doesn't seem to be able to get started.

Lack of Awareness (Moderate/Severe):

One of the major challenges that can be faced for healthcare professionals and family members is poor awareness. As a direct result of injury to the brain, some individuals have a difficult time seeing themselves accurately. They may be unable to notice that they are experiencing certain problems and may act as though nothing has changed since the injury, despite evidence to the contrary. This kind of unawareness is different than denial. In denial, a person may be aware at some level that a problem exists, but uses defense systems to deny the problem. With unawareness (or anosognosia), the individual does not realize that any problem is present or is unaware that a problem can affect their ability to perform tasks like driving and working. Such difficulties can be evidenced as:

- Never seeming concerned, as if nothing is different.
- Insisting that they can do things just as well as before the injury, or wanting to do activities that you know they can't do.
- Complaining that the doctors and you "don't know what you're talking about."
- Blaming other people for the things they can't do (for example, "I can go back to work, but the doctor won't let me").
- Poor safety awareness (for example, thinking it is safe to use power tools despite problems with vision and coordination).



Impulsivity (Moderate/Severe):

Some individuals with TBI have problems with being impulsive. That is, they may have a difficult time inhibiting actions. The neural systems that help us "stop and think" before we act have been affected. Such difficulties are often seen in individuals who have sustained injury to the prefrontal cortex and/or connections between this area and other brain systems. Impulsive behaviors can include:

- Acting or speaking without thinking first.
- Doing whatever he or she wants to without regard for what happens
- Doing things that are dangerous or will cause problems (for example, walking into street without looking for cars; spending all their money on an impulse buy).

Irritability/Anger (Mild, Moderate/Severe):

After TBI, people often report having a "shorter fuse" or being more easily irritated or angry. Such increased irritability has been noted for persons with all levels of injury severity. While violent behavior is relatively rare for those with TBI, it can occur. More frequently, persons feel angered more easily and may be more prone to verbal outbursts. Signs of anger include:

- Becoming angry easily.
- Overreacting to relatively minor incidents.
- Yelling a lot.
- Using bad language.
- Throwing objects or slamming fists into things, such as doors, etc.
- Threatening others.
- Hitting, pushing, or otherwise hurting others.

Inappropriate or Embarrassing Behavior (Moderate/Severe):

Some persons with TBI exhibit inappropriate or embarrassing behaviors. Such problem behaviors are often very stressful for family members, and may contribute to family reluctance to take persons with these problems out into the community. These problem behaviors may include:

- Telling strangers about personal matters that people are usually quiet about.
- Asking casual acquaintances overly personal questions.
- Hypersexuality, or making embarrassing sexual comments, behaviors, or gestures.
- Cursing a lot.
- Lifting an article of clothing in order to show a casual acquaintance or stranger a scar.

Emotional Lability (Moderate/Severe):

For some persons with TBI, emotions may easily shift from one extreme to another. Control of emotions may be more difficult. Examples of such lability include:

- Seeming like they can be laughing one minute and crying the next.
- Laughing inappropriately; for example, laughs when someone is hurt or dies.
- Crying easily at things that would not have upset them before.

Depression (Mild, Moderate/Severe):

Depression is the most common affective disturbance experienced by persons with TBI, with incidence rates far exceeding those of community base rates. Injury-related factors, including location of the injury and neurochemical dysregulation, along with psychosocial factors, including pre-injury psychiatric history, high levels of perceived stress, and maladaptive coping skills have been hypothesized to contribute to increased rates of depression. It is important to note that vegetative symptoms of depression can overlap to some degree with typical impairments that can occur after injury, such as diminished attention and concentration or low energy. So, you may wish to consider affective symptoms as clearer signs of depression in this population. Typical symptoms of depression include:

Affective:

- Seeming sad a lot of the time, and keeping to himself or herself.
- Doesn't seem to be interested in talking with other people.
- Has lost interest in things he or she once enjoyed.
- Says things like "It would have been better if I had died in the accident."

Vegetative:

- Has difficulty sleeping or sleeps too much.
- Seems to have no energy.
- Has little appetite.

Anxiety (Mild, Moderate/Severe):

Problems with anxiety are frequently reported after traumatic brain injury. Common symptoms of anxiety include:

- Feeling worried, nervous, tense, and/or "wound up."
- Irritability.
- Difficulty concentrating.
- Trouble falling asleep or staying asleep.
- Feeling restless.
- Difficulty relaxing.
- Upset stomach or "butterflies."
- Muscle tension.

Anxiety and depression often co-occur, and some symptoms of anxiety, like concentration difficulties and poor sleep, overlap with symptoms of depression and with symptoms of TBI. To differentiate anxiety from depression, it may be helpful to focus on the following symptoms: psychomotor retardation, feeling hopeless, helpless, and/or worthless, and depressed mood appear to be more characteristic of depression, whereas symptoms of increased arousal and behavioral agitation appear more characteristic of anxiety.

• Note on TBI and Psychiatric Disorders

Assessment and diagnosis of psychiatric disorders in persons with TBI presents unique challenges. Some symptoms of TBI, especially the behavioral/emotional symptoms that are more common after moderate to severe brain injury, overlap with symptoms of psychiatric disorders. For example, disorganized speech, disorganized behavior, and poor impulse control are symptoms common to both TBI and certain psychiatric disorders. Thus, a person with TBI who has poor behavioral control and is highly disorganized after injury can "look" like he or she has a psychiatric disorder. As noted earlier, symptoms of depression, anxiety, and TBI also overlap. On the other hand, symptoms of a pre-existing psychiatric disorder may be worsened by impairments related to a traumatic brain injury. Thorough assessment of pre- and post-injury psychiatric history, including assessment of onset and duration of symptoms, may help clarify these issues. Structured treatment approaches that can be modified for use with persons with cognitive deficits, such as cognitive-behavioral therapy, may be beneficial for persons with both psychiatric issues and cognitive impairments after TBI.

Post-Traumatic Stress Disorder

Post-Traumatic Stress Disorder (PTSD) is an anxiety disorder characterized by the persistent re-experiencing of a traumatic event, avoidance of stimuli related to the traumatic event, and increased arousal. Feelings of detachment and "numbing" are also commonly experienced in persons with PTSD. The traumatic event may be re-experienced through intrusive memories, images, and thoughts relating to the event, recurrent dreams, and/or "flashbacks" of the event. Symptoms of avoidance include avoidance of activities, places, and people that may lead to recollections of the trauma. Symptoms of increased arousal include increased vigilance, an exaggerated startle response, sleep and concentration difficulties, irritability, and anger outbursts.

The relationship between post-traumatic stress symptoms and traumatic brain injury, especially mild TBI, is receiving increased attention in large part due to issues faced by soldiers returning from the wars in Iraq and Afghanistan. Several studies have documented PTSD or symptoms of post-traumatic stress in persons with mild to moderate TBI.[6-8] Assessment of PTSD in persons with TBI is complicated to some extent by overlapping symptoms (e.g., concentration difficulties and anger outbursts). However, the principal feature of PTSD, which is the persistent re-experiencing of the traumatic event, is unique to PTSD. Post-traumatic stress symptoms can exacerbate symptoms related to brain injury, just as brain injury-related symptoms can worsen post-traumatic stress symptoms.

♦ How long will problems last after TBI? What is the typical recovery course like for persons who sustained a mild TBI? What is the typical recovery course for persons who sustained a moderate/severe TBI?

Mild TBI:

The majority of individuals with mild TBI experience symptoms in the initial weeks and months after injury. The term *"postconcussion syndrome"* is often used to describe the symptoms experienced following mild TBI. Most persons will feel close to "normal" within the first 3 months after a single, uncomplicated mild TBI. It is important to note that different people have different rates of recovery after injury. Recovery can be slower in persons who have had one or more brain injuries in the past. Recovery can also be slower in persons who are older. For the purposes of this manual, the acute phase of recovery after mild TBI refers to the first 3 months following injury.

Symptoms are usually worse acutely. However, sometimes persons may not notice problems until they attempt to resume their normal daily activities (like returning to work or school). Symptoms will tend to get better over time for most people.

A subset of individuals with mild TBI continue to experience persisting physical, cognitive, or emotional symptoms following their injuries. At this time, it is not well understood why some individuals continue to have difficulties over time after mild TBI. The likely contributions toward outcome after brain injury are multifactorial in nature, with variables related to the force and type of injury, personal characteristics of the person (and brain) that is injured, severity of the injury, the symptom presentation, reactions to such symptoms, and available resources to address issues after TBI.

Moderate/Severe TBI:

For those with more severe injuries, the typical recovery course is longer in duration. In general, persons with more severe injuries experience the most rapid improvements in the first six months after injury. Persons show continued improvements between six months and one year after injury. However, these improvements are usually not as dramatic or rapid as those seen in the first six months after injury. The time period between one and two years after injury is different for different people; some persons continue to show slow and gradual improvements while others show very little improvement. Persons with more severe injuries generally show little change two years or more after injury. For the purposes of this manual, the acute phase of recovery after moderate to severe TBI refers to the first 6 to 12 months following injury.

A table outlining the general recovery course for moderate to severe injuries is shown on the following page.

General Recovery Course for Persons with Moderate to Severe TBI

Injury →	+6 Months →	+1 year →	+2 years →	2+ years
Very fast Improvements	Slower improvement, but still many changes.		Much slower improvement	Improvement levels off; support systems and use of strategies can result In change.

For those with moderate to severe TBI, residual cognitive and behavioral deficits are common. Initial injury-related symptoms are more likely to be a factor long-term after injury. With increasing severity of injury and with greater degrees of initial impairments related to such injuries, the probability that symptoms will be long-standing increases. For example, duration of coma and duration of confusion are associated with the degree of impairment after injury. Longer durations of coma and longer durations of post-traumatic confusion are associated with more severe impairments after injury.

As previously noted, every individual is different and every recovery after TBI is different as well. It is not well understood why some individuals recover more quickly or with better outcomes than others, but it is likely due to a number of factors, such as: the extent of the injury to the brain, the condition of the brain that was injured, previous cognitive functioning, ability to utilize and benefit from compensatory strategies, material support (e.g., financial resources, access to transportation, etc.) and social supports (e.g., family and friends), to name a few.

Factors that impact recovery after traumatic brain injury

- Severity of Injury
- The part/parts of the brain injured
- The strategies used to compensate for problems
- Available supports
- Pre-injury functioning

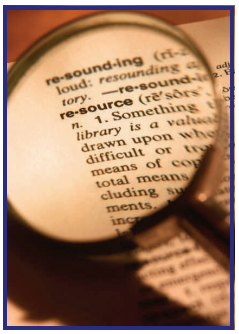
To what extent is traumatic brain injury (TBI) a common health problem?

As mentioned in the introduction to this manual, TBI is a pervasive health problem in our society, with an estimated incidence of 1.4 million new injuries per year.[1] The incidence rate of TBI substantially exceeds that of other neurological conditions, including epilepsy, stroke, and multiple sclerosis.[9] Most cases of traumatic brain injury (approximately 80-85%) would be considered mild in severity, with the remaining 15-20% comprising individuals with more severe injuries.

Epidemiological studies have shown that TBI results in severe disability for 30 to 40 per 100,000 individuals,[10-11] which translates to approximately 75,000 to 80,000 new cases of disability each year.[12] Recently, estimates suggest that there are 5.3 million people living with disability as a result of TBI.[2] These statistics underscore the large number of individuals, families, and communities that are affected by TBI.

In what ways might I be asked to participate in the care of clients with TBI?

As is the case in working with clients from other populations, the role of a social worker in working with clients with TBI can be quite varied depending on the setting in which the encounter occurs and the structure of the particular healthcare system in which the social worker finds himself or herself. Some of the various roles that social workers are likely to fill include, but are not limited to:



- Patient/client advocate
- Liaison between clinical/rehabilitation team and family
- Reference for resources
- Counselor for client and/or family or support system

- Discharge planner
- Public policy advocate
- Facilitator for client/family to become aware of and apply for sources of financial or social assistance

Key Points to Remember

- A traumatic brain injury (TBI) is one type of acquired brain injury (ABI).
- A TBI is an injury to the brain that is caused by a mechanical force, such as might occur from a blow to the head or a rapid acceleration-deceleration event (like a motor vehicle accident).
- The brain can be injured without anything fracturing the skull and even without something striking the head.
- A TBI results in changes to brain functioning that may be temporary or long-lasting. Loss of consciousness or a period of confusion or memory loss are consistent with a brain injury.
- A TBI can vary with regard to injury severity. Milder injuries tend to have fewer long-lasting problems with most recovery occurring within the first 3 months after injury. More severe injuries may result in long-lasting problems and recovery tends to occur over several years. Please refer to the table in Appendix I for additional details about injury severity.
- Common consequences of TBI include changes in somatosensory, motor, cognitive, and behavioral/emotional functioning. These changes vary from person to person, depending on a number of factors such as: severity of initial injury, location of injury to the brain, pre-injury strengths and weaknesses, and post-injury supports. In general, the more severe the injury, the more likely that multiple areas of functioning are affected.
- TBI is a pervasive health problem in our society, with 1..4 million new injuries per year, and an estimated 5.3 million people living with long-term disability as a result of TBI.
- Social workers may be involved in many roles with regard to clients with TBI, including: patient/client advocate, liaison between clinical/rehabilitation team and family, reference for resources, counselor for person with TBI and/or their family or support system, discharge planner, public policy advocate, and facilitator for client/family to become aware of and apply for sources of financial or social assistance.

A Systematic Approach to Social Work Practice for Clients with Traumatic Brain Injury (TBI)

In order to provide a more practical educational resource that might be directly applied in clinical settings where clients with TBI may be encountered, the following training approach has been organized according to the different phases of intervention identified by Compton and Galaway (1989).[3] This approach is a useful way of presenting information, since different tasks and goals are involved during each phase.

- Contact
- Problem Identification, Data Collection, and Assessment
- Case Planning
- Intervention
- Evaluation
- Termination

Additionally, as recommended by Delewski et al. (1986)[13] and Stevenson et al. (1992),[14] within each of the phases of intervention presented in this manual, information is organized to help address educational needs with regard to:

- Attitudinal Biases
- Knowledge Deficits
- Skills Training

Information within these sections has been organized according to the **severity** of the TBI and to the **acuteness** of the injury. Some issues will be more applicable to clients with mild TBI, while other issues will be more applicable to clients with moderate to severe TBI. Some issues will be of greater concern during more acute phases of recovery after TBI, while others are more likely to be present at later time points after injury. To help clarify the complexity of issues that vary due to severity and acuteness after brain injury, an organizational table is provided in Appendix I.

The following sections provide a detailed question and answer format that we hope will provide a useful and thought-provoking training tool for social workers who encounter individuals with TBI in their clinical practice. While information provided in this manual is substantially detailed, an additional foldout summary card including an outline of this information has been provided at the back of this book for use as a tool to help prompt clinicians in practice. Should you be interested in obtaining additional copies of this Summary Card OR this manual, please contact us at 713-630-0522 or download the information from our Center's website at:

www.tbicommunity.org

CONTACT PHASE:

The contact phase involves the initial approach to the client and his or her support system. The goal of contact is to establish rapport and to build the groundwork for problem identification and definition as well as goal identification. A self assessment of attitudinal barriers, knowledge deficits, and/or skills deficits that might affect this initial contact period can be a useful step in increasing the effectiveness with which your initial clinical contact is conducted.

Attitudes:

At this phase of clinical interaction, issues regarding preconceived ideas about traumatic brain injury, comfort level with acute medical settings and/or procedures, feelings regarding various causes of injury, and comfort level with various sensory, motor, cognitive, and emotional/behavioral difficulties should be considered. In addition to the questions presented below, performing a self-assessment to determine if there are other attitudinal barriers that might impact your initial contact with clients can be a useful exercise.

- How do my attitudes toward the causes of injury impact my interactions? What are my attitudes toward individuals who engage in high-risk or illegal behaviors? What if the actions of my client resulted not only in his or her injury, but in harm to others? *(Mild, Moderate/Severe TBI; Acute, Long-term)*

- How comfortable am I in acute medical settings? Am I comfortable in the presence of equipment in the neurointensive care environment? What is my tolerance for the sights, sounds, and smells that may exist in an acute trauma care setting? *(Primarily Moderate/ Severe TBI; Acute)*

- What is my comfort level in approaching clients who may be intubated, have tracheostomy tubes, have skull defects, or the like? *(Moderate/Severe TBI; Primarily Acute, Occasionally Long-term)*

- Am I more likely to be hesitant in approaching the client for interaction if significant sensory, motor, cognitive, or other difficulties are present? Do I feel confident in my ability to determine in which situations a family member or other legally authorized representative should be approached in addition to or instead of the client himself/herself? *(Primarily Moderate/Severe TBI; Acute, Long-term)*

- Do I have preconceived notions about the client's motivations for seeking help, such as a focus on litigation or secondary gain issues? *(Mild TBI; Acute, Long-term)*

- How comfortable am I in interacting with individuals with cognitive and emotional/behavioral disabilities? *(Mild, Moderate/Severe TBI; Acute, Occasionally Long-term for Mild TBI, Long-term for Moderate/Severe TBI)*

- How comfortable am I in interacting with individuals with physical disabilities? *(Moderate/Severe TBI; Acute, Long-term)*

- What is my comfort level in working with individuals from diverse cultural, ethnic, and socioeconomic backgrounds? *(Mild, Moderate/Severe TBI; Acute, Long-term)*

Attitudes (continued):

- Others:

Knowledge:

Increasing your knowledge base regarding some of the issues that might impact the effectiveness of your initial contact with the client and/or his or her family may help you gain confidence in your preliminary clinical interactions. Some of the areas of information that you should be familiar with include:

- Understanding Injury Severity Issues
- Understanding Responsivity
- Understanding the Importance of Orientation
- Awareness of Sensory/Motor Functioning Issues
- Ascertaining Primary Language

- ## Injury Severity: What does it mean to say a client has sustained a mild, moderate, or severe TBI?

The level of severity of the initial injury to the brain is classified as mild, complicated mild, moderate, or severe, as described on pages 13—15. To review, this classification refers to the severity of the initial injury itself, and not to potential impairments or the eventual outcome that an individual with TBI may experience. However, knowing the severity of injury provides important information about common problems that may be experienced, the typical recovery course, and general outcomes for that severity classification. For example, a person who sustained a mild TBI will usually have fewer symptoms, less severe symptoms, and a faster recovery course than a person who sustained a moderate injury. In this way, information about injury severity may help to inform and guide your initial contact with your client and his/her family or support system.

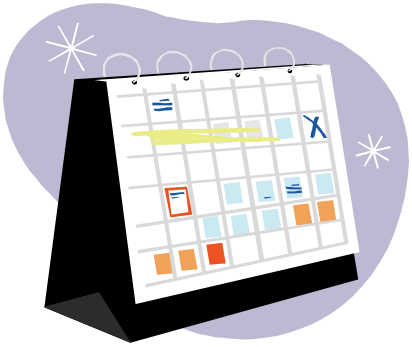
- ## Responsiveness: How well is the client able to respond to his/her environment?

Mild TBI:

Immediately after mild TBI, there may be loss of consciousness that would not exceed 30 minutes in length. For the most part, clients who have experienced a mild TBI should be able to respond appropriately to their environment shortly after injury. In other words, they can typically follow verbal commands (for example, they can show two fingers when asked to do so), can open and close their eyes spontaneously, and are usually able to communicate at some level. Persons with mild TBI may also have a period of time (from minutes to hours to days) when they are confused or disoriented. A social worker may be asked to interact with the client during this period of time, so additional information about orientation and the need to assess for orientation is discussed below.

For clients with mild TBI in the very early period after injury, there may be reasons other than the TBI that could affect the client's ability to respond to the environment or to interact with you, the social worker. Some clients may enter the Emergency Department at the time of their injury with alcohol or other drugs in their systems that might affect their responsiveness. Still others may have been given medications by EMS personnel that could affect their ability to respond.

Therefore, before approaching a client in the very early period after a mild TBI, it is important to review the client's medical chart and/or to talk with treating personnel to gather information about loss of consciousness, scores on rating scales related to the client's responsiveness, and information regarding alcohol, drugs, or medications that might affect the person's ability to interact with you. Depending on the timing of your initial referral, and the status of your client, you may need to wait to initiate contact with the client and/or you may need to make the initial contact with a family member or legally authorized representative. When the client is responsive and oriented, you should then make contact with the client himself or herself.



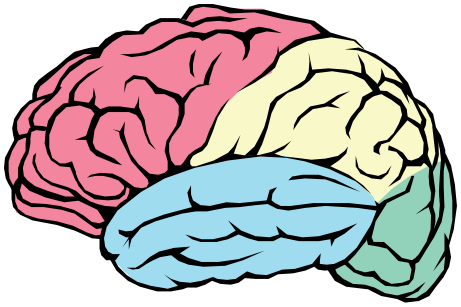
If you are asked to interact with a client who had experienced a mild TBI the day or two before, or any period of time following this very early phase, you will most likely face a client who can respond fully to the environment and interact directly with you. However, a brief evaluation of orientation is always recommended for clients with mild TBI seen in the first few weeks after injury.

Moderate/Severe TBI:

Before approaching the client, especially within an acute hospital setting, it is important to know to what extent that client is going to be able to interact with you. For clients with moderate to severe TBI, if a referral is made within the very early stage after injury, it may be that the client is still in a state consistent with *coma,* a profound and deep state of unconsciousness. That is, he or she may have limited or no response to the environment.

Sometimes, after a coma, an individual may enter what is known as *vegetative state (VS)* or a *persistent vegetative state (PVS).* A persistent vegetative state typically implies that the vegetative state has been relatively long-term, while vegetative states may be short-lived and transitory as part of the normal recovery course following a relatively severe TBI. Individuals in a persistent vegetative state have lost their thinking abilities and awareness of their surroundings (higher brain functions), but retain non-cognitive functions (like breathing and circulation) and normal sleep patterns. People in VS or PVS may show spontaneous movements, and their eyes may open in response to external stimuli (like noise or pain). They may even occasionally grimace, cry, or laugh. Although individuals in a persistent vegetative state may appear somewhat normal, they do not speak and they are unable to respond to commands.[15]

Another category of responsiveness that may be seen after moderate/severe brain injury is called a *minimally conscious state (MCS).* Individuals in MCS can be distinguished from those in vegetative states by the presence of behaviors associated with conscious awareness, like showing a simple response (e.g., finger movement or eye blink) that is observed with enough frequency in response to a specific environmental event to not be coincidental, or by showing a complex response (e.g., intelligible verbalization) that would in itself indicate conscious awareness. In MCS, such cognitively-mediated behavior occurs inconsistently, but is reproducible or sustained long enough to be differentiated from reflexive behavior.[16]



As was recommended above for work with clients with mild TBI, before approaching the client with moderate to severe TBI, it is very important to review the client's medical chart and/or to talk with treating personnel to gather information about loss of consciousness, scores on rating scales related to the client's responsiveness, and admission information regarding alcohol, drugs, or medications that might affect the person's ability to interact with you. This will be much more important for clients with more severe injuries, who will be more likely to have reduced responsiveness that may last over a period of time. Social workers who are asked to consult with clients with moderate to severe TBI in the very early phases of recovery may need to make the initial contacts with a family member or legally authorized representative, since the client is unable to engage in interactions during this early period. Continued monitoring through chart review and communication with treating personnel will help guide the social worker as to when the client is responsive and oriented, so that the client himself or herself can be actively engaged in the clinical interaction.

For most clients with moderate to severe TBI who survive their initial injuries, a progression from coma through vegetative and minimally conscious states to a fully conscious state takes place. For social workers who encounter clients with a history of moderate to severe TBI sometime after the very early stages, the client will most often have adequate responsiveness. Only a small subset of individuals will continue to sustain a persistent vegetative state or minimally conscious state after TBI. For that smaller subset, the social worker will need to work with the family member or legally authorized representative, as the client cannot engage in meaningful dialogue. However, for the vast majority of clients with TBI, over time the social worker will be interacting with both the client and his/her support system in clinical interactions.

- Orientation: Does the client have minimal cognitive functioning to be able to participate in our clinical interaction?

All Clients with TBI: Clients who have sustained a TBI, whether mild, moderate, or severe in nature, often experience a period of confusion, known as *post-traumatic amnesia (PTA)* or *post-traumatic confusion*, following the injury. Persons in PTA are disoriented to aspects of time, place, and situation. For example, they may not know that they are in a hospital or that they were involved in an accident. They may not know the day of the week, the date, the month, or the year. Persons in PTA also have difficulty forming new memories. As a result, they may not remember from moment to moment what is happening after the injury occurs. An individual with TBI who is in PTA may be able to interact with others and even hold a conversation, but later will have no recollection of that conversation. Persons in PTA may not be able to provide information, or the information they provide may not be reliable. They may tend to repeat the same questions several times because they do not recall asking the question or do not recall the answer.

Behaviorally, persons in PTA may appear restless, agitated, impulsive, and disinhibited. Persons in PTA should be supervised at all times because of decreased judgment and poor safety awareness. While in the hospital, such supervision will be provided by clinical staff and family; however, if you encounter clients in the outpatient setting who appear to be disoriented, you should consider recommending continuous supervision.

Therefore, an assessment of the client's orientation is vital before beginning your clinical interaction. Otherwise, you may have an entire interview that will be likely to yield information that is of questionable validity. For clients who are disoriented and in PTA, you will want to interact with a family member or friend who knows the person with injury well as part of your initial clinical contact. Information that is obtained from a client in PTA will need to be corroborated and/or supplemented by a family member or friend who knows the person with injury well.

The duration of PTA can range from minutes or hours to weeks or months, depending on the severity of injury.

- Mild TBI: Mild TBI tends to be associated with shorter durations of PTA. However, persons with milder TBI may be less likely to receive inpatient care initially. Ensuring that family members or friends are available to supervise the individual during this period of disorientation is recommended.

- Moderate/Severe TBI: In general, the more severe the TBI, the longer the duration of PTA. Providing education to family members regarding PTA and the associated behaviors that may be seen during this period may be helpful during your initial contact. Whether clients are encountered in inpatient or outpatient settings, a careful assessment of orientation is vital at the contact stage.

In addition to PTA, where memory for events that occur after the injury have not been sufficiently stored, it is also possible that clients with TBI will have a period of *retrograde amnesia.* Retrograde amnesia is a lack of recall for events that happened just before the injury or for events that occurred in the day or days prior to the accident. For most individuals, retrograde amnesia covers a period of minutes, hours, or days. However, for others a significant portion of time (e.g., weeks, months, and even years) can be forgotten. Typically, very long periods of retrograde amnesia are rare and are associated with severe injuries.

- Sensory/Motor Functioning (Senses/Movements): Does the client have any basic sensory or motor impairments that will affect how I need to interact with him/her?

Individuals who have sustained a traumatic injury may experience sensory or motor function changes. These changes may be a direct result of the TBI, or may be due to additional injuries that the individual sustained. For example, an individual in a car accident may have lost an eye or had a traumatic amputation in addition to their TBI. Or, an individual with a TBI may experience hemiparesis (partial paralysis of one side of the body) or a visual field cut (loss of vision for part of visual space) due to brain injury.

In preparing for the initial contact that you may have with your client with TBI, you will want to find out through review of records or through your referral source if there are any sensory or motor impairments of which you should be aware. Persons with TBI may have sensory impairments that impact their ability to process information. For example, persons with double or blurred vision after an injury may have difficulty reading or processing other visual material, so handing them a form to read and complete may affect the initial rapport that you establish.

Persons with TBI may have motor impairments, such as weakness on one side of the body, decreased balance and coordination, or spasticity (abnormal muscular tone), which may impact their ability to move about the community, to perform self-care skills, or to perform normal social greetings. For example, it is a normal custom in this country to shake the right hand of a person you are meeting for the first time. However, a person who has limited use of his right hand because of weakness or spasticity may be uncomfortable shaking hands with their right. Instead, they may offer their left hand. Or, alternatively, you may wish to gently grasp or touch their arm as a sign of greeting.

- **Primary Language: With what language is the client most comfortable and fluent in communicating? Do I need to arrange for interpreter services or make a referral to a colleague fluent in the preferred language in order to maximize the quality of the communication with this client?**

We live in communities comprised of persons from diverse cultural and ethnic backgrounds. English may or may not be a person's primary language. When approaching the client for the initial contact, you will want to ensure that their fluency with English is sufficient to conduct the interview and/or assessment. If not, arranging for a translator or making a referral to another provider who is

fluent in the client's primary language is recommended. Use of a family member or friend as translator is recommended only when no other alternatives are available. Family members or friends may have difficulty remaining objective, and persons may be uncomfortable speaking about personal issues in the presence of family members.

- **Cultural Background: With what cultural background does your client identify? Are there differences in how disability and/or TBI are viewed depending on one's cultural background? Do people from varying cultural backgrounds have different views about rehabilitation services and community integration?**

According to the US Census Bureau, racial and ethnic minorities comprised approximately one-third of the US population in the year 2000.[17] Disability rates varied among racial and ethnic populations, with disproportionate impact found among racial and ethnic minority groups.[18] It is estimated that racial and ethnic minorities will comprise approximately one-half of the US population by the year 2050.[19] The increasing diversity of our communities demands cultural competence among all healthcare professionals, including those who work with persons with disabilities. In working with clients with brain injury, there may be differences in how such injuries and/or disability is viewed by that individual and his/her family and community depending on the cultural background. While there has been little published work to investigate cultural differences in perceptions of disability and community integration issues for persons with TBI, it would be advisable to explore the impact of culture on expectations of healthcare delivery, community participation, and the like.

The Center for Capacity Building on Minorities with Disabilities Research (CCBMDR) at the University of Illinois at Chicago may serve as a resource that could assist social workers in practice. The Center defines cultural competence as "the application of gained cultural awareness, knowledge and skills that allows service providers to work effectively with individuals from different cultures and recognize and challenge racism and other forms of discrimination and ethnocentric segregation." The model used by the Center conceptualizes cultural competence as a developmental and ongoing process that involves awareness of our own biases and knowledge of the factors that influence cultural differences and similarities. The practice and application of cultural competence includes openness and acceptance of persons from other cultures and groups, a willingness to try non-traditional interventions, active participation in other cultural events, and a willingness to examine the institutional biases of traditional practices and services. Further information about this model and the CCBMDR can be found at:

http://www.disabilityempowerment.org

Skills:

Skills that would be helpful to assist in your initial contact with a client with TBI include the following:

- Increasing familiarity with commonly used terminology and rating scales.
- Ability to assess orientation to assist in determination of client's capacity to participate fully in the clinical interaction.
- Applying effective communication strategies that are responsive to the client's needs.
- Comfort with explaining your role and the reason for the clinical contact.

• Increasing familiarity with commonly used terminology and rating scales.

One of the most helpful skills that will increase your comfort level in working with clients with brain injury is to increase your familiarity with terminology that is typical for this population. When reviewing medical charts or the referral information that you may receive when asked to evaluate or treat a client with TBI, a basic knowledge of the medical terminology will be a great help. Already within this manual a number of new terms have been introduced, and it is hoped that this will increase your comfort level with some of the basic terminology.

Another wonderful resource is a glossary of brain injury terms that was edited by L. Don Lehmkuhl, Ph.D., original Director of the Brain Injury Research Center at TIRR (The Institute for Rehabilitation and Research) as a project of the Traumatic Brain Injury (TBI) Model Systems funded by the National Institute on Disability and Rehabilitation Research (NIDRR) (Grant G0087C2016). The glossary was published by HDI Publishers of Houston, Texas and was copyrighted in 1996 (ISBN 1-882855-06-X). This glossary can be ordered by contacting HDI Publishers at the following address:

HDI Publishers
P.O. Box 131401
Houston, TX 77219
Toll-free (800) 321-7037; Phone (713) 682-8700; Fax (713)956-2288

In addition, portions of this glossary have been made available online through the Oregon Brain Injury Resource Center. The following URL will take you directly to the glossary information:

http://www.tr.wou.edu/tbi/glossary.htm

Glasgow Coma Scale (GCS): The GCS is a widely used scale to assess responsiveness after TBI.[5] The scale measures three aspects: eye opening, motor response, and verbal response. The scores across these three components are summed to yield a total score. As previously noted on pages 14-15, this scale is often used to gauge injury severity. To review, GCS scores of 13-15 are considered 'mild,' scores of 9-12 are 'moderate,' and scores of 3-8 are 'severe.' The scale values are shown here:

Eye Opening	
Spontaneous	4
To Voice	3
To Pain	2
No Response	1
Motor Response	
Follows commands	6
Localizes to pain	5
Withdraws from pain	4
Abnormal flexion	3
Extension (Posturing)	2
No Response	1
Verbal Response	
Oriented	5
Confused, Disoriented	4
Inappropriate Words	3
Incomprehensible Sounds	2
No Response	1

With regard to other commonly used scales that you may encounter in working with clients with TBI, an exceptional resource exists as part of the NIDRR TBI Model Systems projects: The Center for Outcome Measurement in Brain Injury (COMBI). The COMBI is an online resource that provides detailed information and support regarding a large number of outcome measures. The following URL will take you directly to the list of measures on the COMBI website:

http://www.tbims.org/combi/list.html

• Assessing Orientation and Determining Ability to Participate in Clinical Interaction:

Orientation can be assessed within a few minutes. Orientation to person is assessed by asking the person their full name, date of birth, and age. Orientation to time is assessed by asking the day, month, date, and year. Orientation to place is assessed by asking the person what city they are in and what type of place they are in. Memory for recent events can be assessed by asking the person what happened yesterday or if they have had any recent visitors.

You can ask these questions on an informal basis and can then determine if the client is generally oriented and able to recall events that have happened in the recent past. If the client is substantially "off" when asked questions about orientation to time or place, or seems to have no recall of what has happened earlier in the day or the day before, you will likely need to interact with a family member, friend, or legally authorized representative in addition to the client.

A more structured (and preferred method) to assess orientation is the **Galveston Orientation and Amnesia Test (GOAT)**,[20] a commonly used measure of post-traumatic amnesia in persons with TBI. It is a 10-item interview that assesses orientation to person, place, and time. It also assesses memory for events immediately preceding the injury and memory for events following the injury. Impaired GOAT scores may reflect ongoing post-traumatic amnesia, characterized by persisting impairments in orientation and an inability to form new memories, or significant deficits in expressive or receptive language skills. Serial GOAT assessments are often used to assess the duration of PTA. If you work within a rehabilitation setting, GOAT scores may be in the client's chart. You can have your neuropsychologist administer the questionnaire or you could administer the questionnaire yourself to determine the client's score. If the client obtains a score within the borderline range or below, you will likely need to interact with a family member, friend, or legally authorized representative in addition to the client. The GOAT is shown on the facing page.

Persons who experience a TBI may have problems with expressive language, which can affect their ability to respond to orientation questions. In these cases, orientation can be assessed by using a multiple-choice format. For example, the person is provided 4 choices of month in writing, and asked to point to the current month. Again, you will base your determination about the client's ability to participate in the interaction on the degree to which he or she can accurately report information regarding person, place, time, and situation in this multiple-choice format.

Persons with TBI may have problems with receptive language, which can also affect their ability to answer orientation questions. Persons with comprehension problems may not follow directions accurately, and responses may not be related to the speaker's question. If you suspect that a person has problems with comprehension, use short sentences and simple "closed" rather than "open" questions that focus on one thing at a time. Also, allow extra time for the person to process the information. Again, information will need to be corroborated and/or supplemented by a family member or friend who knows the person with injury well.

Galveston Orientation and Amnesia Test (GOAT): The GOAT is used to assess orientation and memories for events surrounding the injury after a TBI. Developed by Levin and colleagues (1979),[20] the test contains questions about orientation to person, place, time, and situation. The following questions and listing of error points are used to calculate total scores for the GOAT. Scores are obtained by subtracting the total number of error points from 100. Scores can range from -8 to 100 on this measure. For example, a person who was unable to recall an event after the injury and was significantly disoriented to month and date would receive 30 error points for a total score of 70. Scores of below 66 are considered defective and those from 66-75 are considered borderline. Persons scoring 76 and above on two consecutive days are considered to be oriented and out of post-traumatic amnesia.

GOAT

1. What is your name? (-2 points)
   When were you born? (-4 points)
   Where do you live? (-4 points)

2. Where are you now?
   City? (-5 points)
   Hospital? (-5 points – unnecessary to state name of hospital)

3. On what date were you admitted to this hospital? (-5 points)
   How did you get here? (-5 points)

4. What is the first event you can recall after the injury? (-5 points)
   Can you describe in detail (e.g., date, time, companions) the first event you recall after the injury? (-5 points)

5. Can you describe the last event you recall before the accident? (-5 points)
   Can you describe in detail (e.g., date, time, companions) the last event you recalled before the injury? (-5 points)

6. What time is it now? (-1 point for each ½ hour removed from correct time for maximum of -5 points)

7. What day of the week is it? (-1 point for each day removed from correct one for maximum of –3 points)

8. What day of the month is it? (-1 point for each day removed from the correct one for maximum of -5 points)

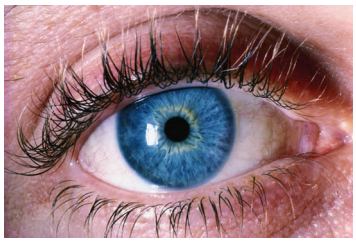
9. What is the month? (-5 points for each month removed from the correct one for a maximum of -15 points)

10. What is the year? (-10 points for each year removed from the correct one for a maximum of -30 points)

- ## In what ways might I need to adapt my communication strategies to be most effective and responsive to my client's needs?

Clients with TBI may have unique sensory, motor, cognitive, behavioral, and emotional difficulties that need to be considered as you conduct your clinical interaction with them. To review, these difficulties are described on pages 16-24. Some suggestions about ways that you might accommodate your clients with TBI are listed here. While this list is not an exhaustive one, it should give you some basics that you can utilize and/or modify as needed, depending on your client's situation.

Sensory:



Vision: As previously mentioned, clients with TBI may have lost part of their field of vision (visual field cut) or may have double or blurred vision. If vision has been affected, you will want to limit the use of written material for these clients, as their ability to see such material and/or to read it may be affected. Instead, you may need to read written forms to the client or have a family member or friend read such materials to the client.

Sensitivity to noise/light: If clients experience sensitivity to noise and/or light, you will want to keep room lights low, lower blinds, reduce sound distractions, and keep your voice tone in a low (yet audible) level.

Motor:

Hemiparesis or hemiplegia: As previously mentioned, clients with TBI may have experienced partial or total paralysis of one side of the body. This can affect their ability to write, shake hands, walk, and perform other personal care functions. If the client's dominant hand has been affected, their ability to complete written forms will be extremely slowed and effortful, as they must rely on the nondominant hand. You may wish to limit the amount of writing that such clients would be expected to do during your clinical interactions. In addition, such clients may not be able to shake hands using their right hand, as is a typical custom in the United States. Rather, you may offer your non-dominant hand or gently touch or grasp the client's arm as an alternate sign of greeting.

Slowed performance: Clients with TBI may exhibit slowed motor movements. It may take such individuals longer to walk, to turn pages of a document, to speak, and to perform self-care tasks. You will want to allow for additional time in your session, if such tasks will need to be performed. Showing patience for a client's slowed speech can be an especially helpful accommodation, and will go a long way in building rapport.

Cognitive:

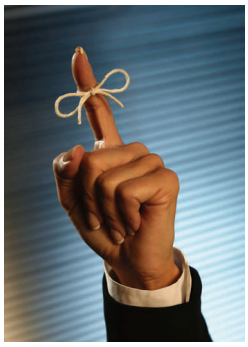
Slowed processing speed: One of the most common difficulties for persons with TBI is that processing speed is slowed. Such slowing can affect the client's ability to follow a conversation, to formulate a response, and to express that response. Long latencies may be noticed in speech. That is, you might ask the client a question, and it may take several seconds for the individual to answer. There are several ways in which you can assist your client in maximizing his or her participation if cognitive slowing is a problem.

- Use short sentences.
- Express only one idea at a time.
- Encourage only one speaker at a time to talk.
- Use patience in waiting for a client's response.
- Encourage client to paraphrase information to ensure that the message has been understood.
- Repeat information as necessary.
- Provide a written summary of information to be presented that can be used to supplement your verbal communication.

Attention difficulties: Many clients with TBI may have difficulty with paying attention, especially over a longer period of time or when information is complex. There are several things that you can do to help improve your client's ability to attend to the information you present.

- Schedule a few short sessions, rather than one longer session.
- Limit other sources of distraction (e.g., turn off television, close door to limit hallway noise, etc.)
- Use short sentences and express only one idea at a time.
- Ask questions and/or gently prompt client to attend.

Memory difficulties: Clients with TBI may have difficulty remembering information. These memory difficulties may include trouble recalling information from minute to minute, or may involve forgetting information over time. Some clients may be better at recognizing information with cues than they are at recalling the information on their own. To help your clients with memory difficulties:



- You or your staff should remind client of the appointment the day before, and perhaps the morning of the appointment as well.
- If memory is a known difficulty for your client, you may wish to inform a family member or friend about the appointment time to assure that the information has been relayed.
- Prepare a written summary of information that you have presented to the client that they can refer to over time.
- Be sure to provide written instructions of requests for future appointments and/or responsibilities that the client may have as part of your clinical interactions.

Visuospatial difficulties: As mentioned previously, some clients have a condition called hemispatial neglect, in which they may not pay attention to one side of space. There are several things you can do to help assist your client with neglect to maximize your clinical interaction:

- Approach the client on the side of space to which he/she attends. This will avoid startling the client.
- Place materials that you would like the client to see or read in the side of space to which he/she attends.
- You may wish to use a red pen to draw a line along the edge of the paper for written material that you present. The red line should be on the side of the paper that corresponds to the side that the client neglects. This line can serve as an "anchor" to help the client scan the material fully.

Problem-Solving difficulties: Some clients with TBI may have difficulty in solving problems, in organizing an approach to address a problem, and in executing the steps to solve problems. In your initial contact with a client with TBI, you may not have significant opportunities to observe such difficulties. However, you may wish to consider that such problems could exist in planning any future activities you will expect the client to undertake. For example, if a goal of your initial session is to encourage the client to request and complete an application for vocational services, you may need to provide additional structure in order for such a task to be successfully completed. Some ideas that you might consider include:

- Providing a written list of steps that need to be taken to complete a given task.
- Including a family member or friend in the discussion, so the client will have "back-up" to assist him or her in getting the job done.

Behavioral/Emotional Issues:

Poor Initiation: Some individuals with TBI have difficulty getting started with things. This may mean that they have difficulty beginning a conversation, have trouble coming up with questions in conversation, have trouble getting started with completing tasks, and the like. Here are some suggestions about how to facilitate your initial interaction for clients with initiation difficulties:

- Provide prompts to client to determine if they have questions.
- Engage a family member or friend to help cue the individual to begin and complete task requirements.
- Develop a cueing system that may work to help the client follow through with tasks (e.g., having office staff phone with reminders, having nursing and therapy staff use calendar or memory book, using Yahoo calendars to prompt client over email, etc.)

Disinhibition/Impulsivity: Clients with TBI may have difficulties with inhibiting behaviors or may "leap before they look" in daily life. Such impulsivity can have significant safety implications, but can also make interpersonal communication difficult to follow or even uncomfortable. Some clients may choose inappropriate topics in conversation, may rapidly shift from one topic to another, or may get frustrated easily. Safety can also be an issue here, as such clients may attempt physical tasks that they are not ready to accomplish (e.g., getting up from bed when not able to walk independently yet) or may spend money that they cannot afford, etc. In your initial contact with a client with TBI, you can attempt to address impulsivity issues by:

- Gently redirecting client to current topic of conversation.
- Keeping your voice tone calm and steady.
- When safety is not a concern, ignoring problem behaviors and reinforcing desired behaviors with attention and praise.

Emotional lability: Some clients, typically those with more severe injuries, may have difficulty with lability of mood. They may rapidly change emotional expression from laughter to tears. Often, very minor stressors can induce a major affective response. This can be disconcerting to the unprepared clinician. However, when such lability of mood exists, you can try the following:

- Gently redirect the client. Often, distracting the client with another topic will extinguish the affective response.
- Try not to over-attend to such affective displays, as this may actually exacerbate the response.

How can I comfortably explain my role as a social worker in the client's situation and the reason for my involvement in his/her clinical care?

Most likely you have had significant experience in explaining your role to many clients in various situations. The important thing to realize in your work with clients with TBI is that provision of this explanation is equally important for this population. While there may be some barriers to effective communication due to cognitive or other factors and some clients may not be able to interact directly with you initially, providing an explanation and framework to the client and/or his or her representative is a very important part of your initial clinical interaction. Such clients and their family members are often faced with numerous healthcare providers and will want to know with which aspects of their care you will be involved. Keeping in mind the need to modify your communication style using some of the suggestions above, be sure to spend at least part of your initial session outlining the specific role that you will play in the care of this client with TBI.

Key Points to Remember

- If your client is to be seen in the early period after their injury, you will want to assess the level to which they are able to respond and interact in a meaningful way with you through review of medical charts and administration of an orientation interview, where appropriate. [To review, clients with mild TBI may have a brief period of loss of consciousness (≤ 30 minutes) and a period of minutes to days during which they are confused or disoriented. Those with moderate to severe TBI may sustain loss of consciousness and a period of confusion or disorientation that lasts hours to days, weeks, or even longer.]

- Prior to making initial contact, through review of medical records or communication with the referral source, attempt to determine if there are sensory, motor, cognitive, or emotional/behavioral difficulties that will impact your session. Identification of such difficulties will allow you to adapt your communication style to enhance the comfort level of your client, as well as the client's ability to understand and benefit from your interaction.

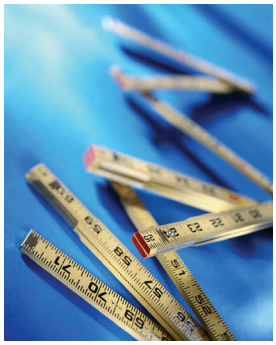
- As with all clients you may see, determine the primary language with which your client with TBI is most comfortable and fluent. You will also want to consider the cultural background of your client prior to your initial contact. If needed, contact colleagues, translator services, or centers of excellence in cultural issues for assistance in working with clients from various cultural and language backgrounds.

- Familiarity with medical terminology and commonly used assessment measures utilized for persons with TBI will greatly enhance your ability to identify issues you will want to address with your client and will facilitate your interactions with other healthcare professionals.

- Increasing your comfort level with approaches to the assessment of orientation will ensure that you are approaching a client who is capable of benefiting from your clinical interaction.

- Although your client with TBI may experience various sensory, motor, cognitive, or emotional/behavioral limitations, it is important that you take the time to identify yourself and the purpose of your clinical interaction, just as you would do with any other client.

PROBLEM IDENTIFICATION, DATA COLLECTION AND ASSESSMENT:



This phase involves the collection of information through interviewing, communication, and the therapeutic relationship to help understand the client's perception of the problem and to identify targets for intervention. A self-assessment of attitudinal barriers, knowledge deficits, and/or skills deficits that might affect the collection of information and identification of the problem(s) to be addressed for clients with brain injury may improve the process and result in an improved focus for intervention.

Attitudes:

Problem identification, data collection, and assessment can be impacted by preconceived ideas about typical outcomes for persons with TBI, comfort level with gathering information from multiple resources, feelings about the use of various approaches to the collection of data or assessment, and biases about person-centered approaches. In addition to the questions presented below, performing a self-assessment to determine if there are other attitudinal barriers that might affect the process of data collection, assessment, and resulting problem identification may be beneficial.

- **How comfortable am I about asking questions regarding cognitive, behavioral, and physical problems?** *(Mild, Moderate/Severe TBI; Acute, Long-term)*

- **How comfortable am I in reviewing medical charts to obtain information relevant to my client's needs? If medical charts are unavailable, do I feel confident in my knowledge of where to obtain information I may need?** *(Mild, Moderate/Severe TBI; Acute, Long-term)*

- **How comfortable am I in asking questions of persons who may be in acute medical settings, where they may have a tracheostomy tube or other devices that may affect communication? How comfortable am I in interacting with persons who might require other equipment and/or devices, such as the use of helmets while awaiting cranial bone flap replacement, or various orthoses?** *(Moderate/Severe TBI; Acute, Long-term)*

- **How do I feel about non-traditional families and/or support systems?** (*Mild, Moderate/Severe TBI; Acute, Long-term)*

- **How do I react to persons with varying levels of productivity prior to injury?** (*Mild, Moderate/ Severe TBI; Acute, Long-term)*

- **Am I comfortable in interviewing clients that may have substance abuse issues?** (*Mild, Moderate/ Severe TBI; Acute, Long-term)*

- **Am I comfortable in interviewing clients with psychiatric issues?** (*Mild, Moderate/Severe TBI; Acute, Long-term)*

- **Others:**

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Knowledge:

Increasing your knowledge base regarding issues that might affect your identification of the problems to be addressed for your client with TBI may help you to improve your comfort level and effectiveness in your clinical interactions. Some of the areas of information that you should be familiar with include:

- Understanding Common Sequelae (Consequences) of TBI
- Need for Involvement of Family/Support System
- Understanding the Importance of Pre-injury Roles and Functioning
- Ascertaining the Client's Current Strengths

- Common Sequelae (or Consequences) of TBI: What are the common symptoms that people experience after sustaining a mild TBI? What are common symptoms after sustaining moderate to severe TBI?

To facilitate your problem identification, data collection, and assessment it is important that you be familiar with some of the common problems that can occur after TBI. There are four groups of problems that are typical after TBI: sensory, motor, cognitive (thinking abilities), and behavioral/emotional. Some problems are more common after mild TBI, and some problems are more common after moderate to severe TBI. These problems are described in greater detail on pages 16-24.

As noted previously, every brain injury is different. Many people with severe injuries have some problems in all four areas, but the specific types of problems may differ. Some people experience several areas that are problematic for them, while others have only a few problem areas. However, no one's brain works as well after an injury. It may take a long time before a person with injury, especially a person with moderate to severe injury, can return to the activities they did prior to their injury. Some people with a moderate to severe TBI may never be able to return to all of the activities they did before their injury, but they may return to some.

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- ## Need for Involvement of Support System: Why is inclusion of family members or other members of the individual's support system so important following TBI?

Inclusion of the family/support system will be of key importance in working with clients with TBI. The person with TBI is often dependent on family members and friends for a variety of needs, including transportation, assistance with financial, legal, and medical decisions, obtaining and completing forms, and emotional support.[21] The support system is the bridge to help individuals with TBI maximize their potential and transition to the community. Assessments and treatments should include key members of the support system.

For persons with more severe injuries in the very acute phase of recovery, when the person is still in coma or in PTA, the family will be the primary source and recipient of information. The person with injury may have no or a limited ability to provide details about their circumstances prior to injury. They may not be able to understand their current situation or set appropriate goals. A person who has emerged from PTA may still experience significant cognitive deficits that impact their reasoning skills and their ability to process and retain information. The family/ support system can help reinforce information and assist their loved one with implementing and practicing compensatory strategies.

The family system continues to play an important role during the post-acute stage of recovery. For example, the family often becomes the primary source of emotional support and provider of leisure activities for persons with moderate to severe TBI. While social workers are perhaps more inclined to include family and support systems as part of a typical approach to client care as compared to many other members of the healthcare team, it is even more vital to do so for persons with the complex and varied areas of difficulty that often accompany TBI.

It is important to note that family members of persons with TBI experience significant emotional distress, especially in families of persons with more severe injuries. High levels of distress within the family or home environment can negatively affect the ability of the family/support system to help the person with TBI resume activities, like housework, shopping, and visiting friends and family. For this reason, it is important to be sensitive to potential stressors in the family or home environment and to be aware of resources that can be of help to family members of persons with TBI. Such resources may include educational materials about TBI, stress management techniques, referrals for supportive counseling or therapy, and referrals for assistance with practical supports, like transportation and childcare. All information and recommendations should also be provided in writing, for family to refer to at later times as needed.

- Pre-Injury Roles: What were the roles that the person with TBI had within their family or support system prior to their injury? What are the expectations of members of the family/ support system regarding the roles that their loved one with injury will resume after injury?

Persons with TBI and their family members often experience role changes after injury. Knowledge of the pre-injury roles of the person with TBI and the important members of his or her support system is necessary for understanding how those roles may change after injury. Persons who experience a TBI and their family members may not have the same responsibilities as they did before the injury. For example, a person who suffered a TBI may be unable to return to work and resume his or her role as the "breadwinner." As a result, a family member who primarily cared for the children may need to return to work. Family members may also assume an increasing number of roles after injury (e.g., breadwinner, caregiver, household manager, and family decision maker), which may yield increased stress and strain. A person with TBI who is unable to fulfill a previous role after injury may also experience emotional distress related to this significant life change. Many persons with mild TBI and their family members experience relatively brief role changes, but are often able to resume pre-injury roles within the first few months after their injury. In contrast, persons with moderate to severe TBI and their family members tend to experience more long-lasting role changes.

- Pre-Injury History: How was the person with TBI functioning before injury? Are there pre-injury issues, such as substance abuse, psychiatric problems, academic/vocational problems, or other medical history that could impact case planning or implementation of interventions after injury?

Assessment of pre-injury history and functioning will also help to inform problem identification, case planning, and interventions after TBI. For example, a person's citizenship status can affect service eligibility, and pre-injury reading skills can affect a person's ability to complete paperwork after injury.

There is a strong relationship between substance abuse and TBI, so assessment of potential substance abuse issues is important for effective case planning. Studies have found a pre-injury history of alcohol abuse in 37 to 66% of persons with TBI[22-25]; between 36 and 51% of persons with TBI are intoxicated at the time of injury.[26-29] Continued use of alcohol and drugs after TBI can interfere with recovery. The brain is more vulnerable to the effects of alcohol and drugs after injury, so even a relatively small amount can have a pronounced and negative effect on judgment, thinking skills, and balance. The interaction of alcohol or other drugs with prescription medications can be especially dangerous.

Gathering information about the following areas of pre-injury functioning may assist with problem identification and case planning, and can help identify potential targets for intervention:

- **Academic/Educational History**
  - Educational level
  - Presence/absence of learning disability
  - Pre-injury reading skills
- **Employment History**
  - Job stability
  - Physical versus cognitive demands of job
- **Medical/Developmental History**
  - Presence/absence of chronic or disabling medical conditions
  - Presence/absence of Attention Deficit/ Hyperactivity Disorder
- **Substance abuse history**
  - Usage patterns
  - Personal, legal, or employment problems related to substance abuse
  - Treatment history
- **Psychiatric history**
  - Diagnoses
  - Treatment history
- **Other issues**
  - Citizenship
  - Legal issues

• Current Client Strengths: What are the current areas of strength that your client with TBI possesses? What are the social, emotional, and material resources available to facilitate your client's maximum functioning?

In working with clients with TBI, it is important to also concentrate on identifying areas of strength that can be utilized to facilitate maximal functioning. People with TBI are likely to have a number of strengths in addition to the limitations that may be a result of their injury. You will want to keep in mind that a person with a brain injury is a **person** first, with all the wonderful qualities that make each of us a unique individual. As a social worker engaged in assisting your client with TBI, it will be helpful to identify the positive qualities in your client that can aid them in attaining their goals. You will want to identify your client's area of sensory, motor, cognitive, and emotional/ behavioral strengths as part of your overall assessment. In addition, you will want to identify the social, emotional, and material resources that are available to assist them in reaching goals. This may be part of your standard assessment for all clients with whom you work; however, it is important to recognize that such an evaluation is particularly important for your clients with brain injury.

Sensory/Motor Strengths:

What areas of physical functioning either present no problem or are well developed for your client? Think about each of the following areas as potential strengths that can assist your client with his/her goals:

- Vision
- Hearing
- Sense of Touch
- Sense of Taste/Smell
- Walking
- Coordination
- Balance
- Toleration of light/noise

Cognitive Strengths:

Even if your client has difficulty with some areas of thinking, they may have very few problems with other areas. For example, your client may have problems remembering things, but have few problems with attention or organization. If this is the case, you may be able to help them come up with a way to use their organizational strengths to help them keep track of information they will need. Here are some thinking abilities to consider:

- Attention/concentration
- Memory for new information
- Speed of thinking
- Organization
- Communication
- Learning
- Memory for old information
- Problem-solving
- Speech
- Writing

Emotional and Behavioral Strengths:

Identification of your client's emotional and behavioral strengths will also be important as you consider ways to help facilitate their maximum functioning and community integration. Consider the following areas of potential strength:

- Initiation
- Calmness
- Happiness
- Judgment
- Sense of Humor
- Friendliness

Social, Emotional, and Material Resources:

In addition to areas of strengths possessed by the person with TBI, it will be beneficial to determine the resources that your client has available to him/her. Examples of resources to consider include:

- Number of friends
- Pre-injury coping strengths
- Financial resources
- Number of family members
- Current coping strengths
- Transportation availability

Skills:

Skills that are important for problem identification, data collection, and assessment for your client with brain injury include the following:

- Using familiarity with typical sequelae to help identify client challenges via chart review and interview.
- Identify support system and ascertain roles and functions of its members.
- Use knowledge of cultural and educational background in communication with the client with brain injury and members of his/her support system.
- Assess awareness of current strengths/limitations in relation to client and family goal setting.

- Identification of Client's Challenges: What are the best sources of information to ascertain the areas of difficulty faced by your client with TBI? What medical records should be requested? What information should you seek during clinical interview?

When presented with a referral of an individual with a history of traumatic brain injury, you will want to obtain as much information as possible about their injury, their pre-injury strengths, their post-injury functioning, and their currently available social and material resources.

Medical Record Review:

An initial source of valuable information is the client's medical record, if this is possible to obtain. For clients with a mild TBI, limited medical records may be available. Some persons with mild TBI never seek medical attention after their initial injury. Others are seen in the emergency department and discharged soon after. Very few individuals with mild TBI are hospitalized. Most who do get admitted to a hospital have either sustained a *complicated mild TBI* or have had other injuries (like fractures, etc.) that lead to admission. However, if the person with mild TBI has received medical attention or has been seen by other healthcare professionals, such as a **neuropsychologist**, obtaining those records will be helpful in your case planning.

For those with moderate to severe TBI, most will have been hospitalized and many will have extensive medical records. Depending on when the client is referred to you, they may have had acute medical care and rehabilitative care.

The following list may help to structure your medical record search:

- Date of injury
  This should be readily obtainable in the chart, and may even be on the referral you receive. At what point in the recovery process is this client? If the injury is very recent, there will be different expectations than if the injury occurred several years ago.

- Severity of injury
  Look for GCS score, or notes from physician regarding severity. This information may be in the history and physical, the emergency room intake form, or the discharge summary.

- Surgeries
  Has your client had a neurological surgery? Does he/she have any planned future surgeries that might impact the ability to work toward treatment goals?

- Physical, Cognitive, Emotional, and Behavioral Changes
  The history and physical, discharge summary, and therapy notes are all good sources of information about strengths and weaknesses that may exist after injury. A very good source of information can be the neuropsychological report. A neuropsychologist is a specialist that evaluates a person's cognitive and emotional/behavioral functioning. This test report can often be found in the consultation section of a medical record. Alternatively, if this was conducted outside of a hospital stay, you may need to find out from the client or his/her family if such an evaluation was conducted and try to obtain the report.

  When looking at these records, always keep in mind **when** the information was obtained in relation to the time of injury and to the time of your contact with the client. For example, if the evaluation was conducted two months after the person's severe

TBI and you are seeing them three years after injury, the results may be of limited utility. The relatively acute nature of that evaluation means that the person has likely improved since that time. You will want to look for a more recent evaluation, or you may want to request a re-evaluation. If this is not possible, you'll need to rely more on your clinical interview to have an idea about the client's current status.

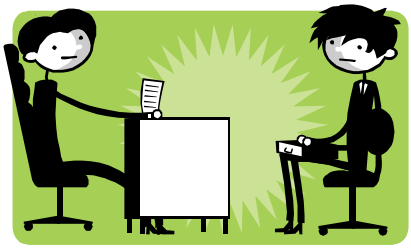
- Therapies Received/Progress
  Has your client received any physical, occupational, speech/language, recreational, or other therapies? If so, notes from the therapist or the assessment and discharge notes may provide information about the client's functional abilities.

- Assistive Devices
  Does your client have assistive devices to help him/her with daily functioning (i.e., uses a memory notebook to help recall appointments, a cane for walking, etc.)? If such devices were recommended and your client does not use them, what is the reason? For example, is the barrier lack of funding, dislike of the device, or lack of knowledge about how to best utilize the device?

- Limitations and Recommendations
  Are there activities, such as driving and use of firearms, that the physician recommended be restricted? If so, are those activities being conducted? Has time passed such that the recommendation should be re-evaluated? Were there specific follow-up recommendations made for additional services? Have those been obtained or pursued? If not, what are the barriers?

Interview:

While medical records provide valuable information, the clinical interview is also of particular value. Not all medical records are obtainable, and for some who may not have had medical attention recently, the information may be somewhat outdated. During your clinical interview, the following areas of questioning will likely be helpful in your overall conceptualization of the case and in planning interventions:



- Date and Circumstances of Injury
  How long post-injury is the client? How was the injury obtained?

- Hospitalizations/Treatments after Injury
  Was the client hospitalized? For how long? Did they receive any surgeries? Have they received rehabilitation services?

- Physical, Cognitive, Emotional, and Behavioral Changes since Injury

  What does the client (and his/her family or support system) perceive to be the physical, cognitive, emotional, and behavioral changes that have occurred as a result of the injury? Begin with general questions (e.g., "Have you noticed any changes in your thinking abilities since your injury?"), then ask about specific areas (e.g., "Any difficulties with your memory?").

- Progress Since Injury

  Has your client noticed any improvements since his/her injury? Has anything become more problematic since the injury?

- Limitations/Recommendations

  Are there activities that your client has been asked not to do (e.g., driving, climbing ladders, making financial decisions)? Are there particular services that were recommended for the client?

- Social and Material Resources

  Who are the primary people in the client's support system? What roles do they play? What kinds of support does the client have for transportation needs, medical needs, housing needs, etc.?

- Pre-Injury Medical/Psychosocial History

  Does the client have any co-morbid medical conditions that need to be addressed? Any pre-injury history of alcohol or substance use? Any previous psychiatric history?

- Goals

  What does the client hope to do now (e.g., go back to work, live independently, etc.)? In what way is the client looking for assistance from you?

- Identification of Support System: Who are the important persons involved in your client's life? What roles have they played in the past and what roles could they potentially play in the future?

Given the role of the family/support system during all phases of recovery, it is necessary to identify important family members and others who may be essential members of the support system. This may include parents, children, other family members, significant others, and friends. One should also be aware of possible conflicts between members of the support system that could affect the person with TBI.

It is important to identify pre-injury roles, to discuss potential role changes that family members may experience after the injury, and to help foster acceptance of these changes. Family members, including the person with injury, can be encouraged to discuss the various family and household responsibilities and ways to divide those so that all persons have some responsibilities. You will want to receive input on the perceived roles that the person with injury had in the past, what roles they presently fulfill, and what roles are hoped to be fulfilled in the future.

Obtaining multiple viewpoints on these perceptions will be helpful in developing the most comprehensive view of the client's and the family's situation. This ascertainment of multiple viewpoints is particularly valuable since difficulties with accurate self-awareness can be a common problem after moderate to severe TBI. Relying solely on the client's perceptions could lead to erroneous assumptions on which to conduct case planning. However, despite difficulties with awareness, one must include and value the input of the person with injury. A "person-centered planning" approach is key. Understanding your client's perceptions, goals, and hopes will increase the likelihood that the intervention plan will be successful in meeting your client's needs.

In situations where decision-making is an issue and the person with injury may have difficulties in fully understanding the problem or choices to be made, it will be important to determine if there is any power of attorney or legal guardianship in place. If not, you may need to consider who may be considered to be a proxy for decision-making. A proxy is typically designated in order, such as:

- Judicially appointed guardian
- Spouse
- Adult child
- Parent
- Adult sibling
- Other adult relative
- Close friend of patient

- Cultural/Educational Issues in Communication with Client and Family: How do the client and his/her family or support system view physical, cognitive, and emotional/behavioral challenges? How are roles viewed in the social/cultural system to which they belong? Are questions being asked in a way that is understood by the client and his/her family based on their educational background and preferred language?

In gathering information about the areas of functional change and role perceptions, you will want to be aware of potential cultural values that might affect a family system's comfort level with disability and receptiveness to the shift in roles and responsibilities that might be presented. Attitudes toward disability and what roles are viewed as "appropriate" may differ depending on one's social/cultural background. Spend some time ascertaining family expectations, as well as the social/cultural norms that might be present in their community. You may wish to seek outside consultation to assist with sensitivity in working with families from cultures with which you are less familiar.

In asking questions or in gathering information via questionnaire or other format, it is important to be aware of the client's educational background and preferred language. It may be necessary to reword questions or read items aloud to ensure that the client receives accurate information and will answer appropriately.

- Assess Awareness of Current Strengths/Limitations: How accurately does the client perceive his/her abilities? Does the family agree with the client's views of his/her abilities and limitations? Do the perceptions of the client, family, and healthcare professionals converge regarding the client's abilities?

When collecting information from your client about his/her abilities after injury, an important issue to consider is the extent to which the client's perceptions are accurate. As already described in this manual, it is relatively common for persons with moderate to severe TBI to have some difficulties with perceiving themselves accurately as a result of the injury. In general, problems with awareness occur most frequently early in the recovery process and tend to improve over time after injury. Awareness problems can affect how well a person is able to describe their own strengths and weaknesses. But, it also affects one's ability to determine what kind of activities would be difficult for them or to set realistic goals.

For clients with mild TBI, you may encounter a different problem. Sometimes clients with mild TBI may be more sensitive to the changes that have occurred than will family members or friends. Individuals with mild TBI may report greater severity of symptoms than their close others report. There are various reasons that can explain these differences. Since changes after a mild TBI may be more subtle, it is possible that others will not be aware that the client is having difficulties. Or, for some individuals, the experience of having subtle difficulties in thinking abilities can be very distressing, which can increase the cognitive problems experienced.

In order to try to understand your client's current strengths and weaknesses, it will be important to get as many different perspectives as possible. You can compare the client's self-report with that provided by close others. You can also compare the client's and family's reports with results from evaluations by healthcare professionals, keeping in mind that the comparison will be affected by how much time has passed since the evaluation was conducted and how long post-injury the evaluation occurred.

Another issue to evaluate is the degree to which the client's and family member's perceptions agree with regard to setting goals for treatment or services. This will be extremely important information as you begin to plan interventions to address the client's needs.

Key Points to Remember

- Increasing your familiarity with the typical sequelae of TBI and medical terminology will assist you in your review of medical record information and in conducting interviews that are likely to glean information of importance in planning your intervention with your client with TBI.

- A careful evaluation of the pre-injury history, including pre-injury family roles and other pre-injury issues such as substance abuse, psychiatric problems, academic/vocational problems, or other medical history will assist in developing goals and will enhance your treatment planning.

- While identification of areas of client impairment as a result of injury is important, it is equally important to identify areas of relative or residual strength. Areas of strength can be used to clarify client goals and may assist your client in getting around areas of difficulty.

- The family and support system are vital for clients with TBI. Understanding the pre-injury roles, material and social resources, cultural background, and communication style of the family will be a critical aspect of planning care for your client with TBI.

- Whenever possible, include the key persons in your client's social support system in the process of problem identification and data collection, as these individuals may have important information regarding pre-injury roles and functioning, current strengths and weaknesses, and hoped for future goals for your client with TBI. Furthermore, such individuals will be vital to the carryover of the treatment plan into the client's community life and will be available to continue to assist your client in the future after your involvement has ended.

- Obtaining multiple viewpoints about your client's current functioning and goals will be an important method for ensuring that you have an understanding of the level of awareness that your client may have about their own strengths and weaknesses. For those with more severe injuries, impairments in self-awareness are fairly common, particularly in the early stages after injury.

CASE PLANNING:

This phase involves the development of an intervention plan that is based on decisions of both the social worker and the client(s). Several steps are taken to integrate information obtained from the client with TBI and his/her family/support system regarding current status, resources, and eventual goals with the realities of the social worker's resources with regard to time, skills, and agency function/social worker setting.

Attitudes:

Case planning can be impacted by preconceived ideas about the role of the family or support system in involvement with interventions or goal-setting, with either overly negative or overly positive expectations about recovery following TBI, and with comfort level with a person-centered approach to goal-setting. In addition to the questions presented below, performing a self-assessment to determine if there are other attitudinal barriers that might affect the process of case planning may be beneficial.

- How comfortable am I in working with both client and family in the process of goal-setting? *(Mild, Moderate/Severe TBI; Acute and Long-Term)*
- Do I hold preconceived ideas about the likely recovery of this individual? *(Mild, Moderate/Severe TBI; Acute and Long-Term)*
- How do I feel about balancing the client's goals with the family's goals or my own assessment of needs/goals? *(Mild, Moderate/Severe TBI; Acute and Long-Term)*
- How comfortable am I with seeking assistance or consultation if needed? *(Mild, Moderate/Severe TBI; Acute and Long-Term)*
- How comfortable am I with expressing lack of familiarity or knowledge about an issue to client and family? *(Mild, Moderate/Severe TBI; Acute and Long-Term)*
- Others:

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Knowledge:

Increasing your knowledge base regarding some of the issues that might affect your approach to case planning for your client with TBI and the manner in which you synthesize information to develop a plan for intervention may help you to improve the overall quality of that treatment plan. Some of the areas of information that you should be familiar with include:

- Integration of Client/Family Goals with Current Functional Status
- Understanding Importance of Recovery Course in Goal-Setting
- Knowledge of Community, State, and National Resources

• Integration of Client/Family Goals with Current Functional Status: How can I facilitate realistic and relevant goal-planning given the client's goals, the family's goals, and the client's current functioning?

One of the challenges that you may face in working with your client with TBI is assisting your client and your client's family in identifying realistic treatment goals. Goal-setting with your client with TBI involves some of the same skills that are utilized in goal identification and goal-setting with any client. That is, it requires listening to the client's perceptions of their strengths and weaknesses and the short-term and long-term goals that they hope to achieve. This same information should be obtained from the family support system as well. These perceptions and identified goals must then be considered in relationship to the objective evidence of the client's abilities to help determine the targets for treatment.

Setting goals that are realistic for the client's current functional level, but which may not be commensurate with his or her pre-injury roles and level of functioning can be very distressing for both the client and family. Thus case planning and goal-setting also requires sensitivity to potential grief and loss issues. Grief and loss issues may be related to physical, behavioral, or cognitive impairments, increased dependence on others, the inability to return to work, changes in physical appearance, and role changes, to name a few. For example, a client who has significant balance and coordination issues after injury may grieve the loss of his or her athletic skills. A spouse who has assumed significant caregiving duties for the person with injury may grieve the loss of an intimate life partner. Decreased feelings of self-worth and self-esteem may accompany feelings of grief and loss. Awareness of potential grief and self-esteem issues after injury can improve your communication with client and family, and contribute to a sensitive approach to case planning.

For persons with more severe TBI, clients' perceptions of their abilities may differ from the abilities that are demonstrated. As discussed previously, impaired self-awareness is common after moderate to severe TBI. Therefore, a client's appreciation of their current strengths and weaknesses and how such abilities might affect their everyday functioning and goals can be affected. Rather than ruling out any goals due to a client's current abilities, a more fruitful approach is to validate the client's goals and work to identify a short-term or intermediate step that might help them attain that goal or a related goal. For example, your client may wish to return to their job as a store manager. However, he or she may have significant cognitive issues that would make it difficult to perform those job duties at this time. You may be able to work with your client to identify intermediate steps to help with this return to work goal (e.g., participating in a volunteer position with some similar job tasks, arrange to have a more limited type of job assignment, such as performing only one or two aspects of the job initially with a job coach to assist, etc.).

The main point here is to help find a middle ground that maintains the client's hope while helping them to begin practical steps to meet goals. Remember that we do not know how much functional change a person may make after TBI, so you should try to avoid statements that suggest a client will never meet a goal. Such statements can decrease hope and harm your clinical rapport, both of which are detrimental to the potential of your clinical intervention.

- ## Consideration of Recovery Course in Context of Goal-Setting: What might be relevant goals to be addressed at various time points after injury? How does this vary depending on the severity of the initial injury?

Mild TBI:

To review, most persons who sustain a mild TBI improve to near pre-injury levels within the first three months after injury. Improvements are thought to be facilitated if clients have sufficient rest and take a gradual approach to resumption of pre-injury activities. It is important to remember that not everyone gets better at the same rate. Every injury is different and likewise, recovery from the injury can differ as well. Recovery can be slower in people who are older or in those who have had one or more brain injuries in the past.

Therefore, if you are referred a client who has sustained an uncomplicated mild TBI within the first few days, weeks or months after injury, you would expect that your client will be likely to experience fairly rapid improvements in functioning within that early time window. Your case planning may wish to focus on helping the client manage current symptoms, while setting expectancies for likely continued recovery. Emphasizing the principle of gradual resumption of activities may also facilitate your client's recovery.

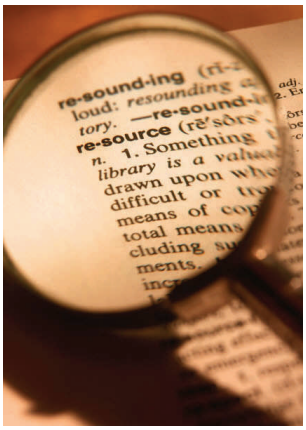
However, if your client with an uncomplicated mild TBI is referred to you at a later time post-injury, it may be that the problems experienced are of a more chronic nature. The reasons that persons with uncomplicated mild TBI may have prolonged difficulties are thought to be multifactorial, and may reflect aspects of the injury itself, pre-injury functioning, psychological reactions related to changes experienced as a result of injury, as well as environmental factors (e.g., stressors related to things such as loss of income, etc.). While some symptoms may be present in a subset of individuals, it is atypical for an individual with a single uncomplicated mild TBI to have severe physical and cognitive symptoms (such as hemiparesis, severe memory difficulties, etc.), especially if they are present after the acute stage of recovery. If such symptoms are present, you will want to have a good understanding of factors that might be contributing to the symptom presentation and how these may need to be addressed.

Moderate and Severe TBI:

To review, persons with more severe injuries experience the most rapid improvements in the first six months after injury, and continued improvements between six months and 1 year after injury. However, these improvements are usually not as dramatic or rapid as those seen in the first six months after injury. The time period between one and two years after injury is different for different people, with some persons continuing to show slow and gradual improvements while others show very little improvement. Persons with more severe injuries generally show little change two years or more after injury.

If you are referred a client within the first few months after a moderate to severe TBI, you should realize that his or her functional status is likely to change dramatically over the first year after injury. Therefore, goal setting will need to consider both short-term needs to address current functional status and longer-term needs where functional abilities may have greatly improved. That is, your target for treatment may need to be adapted as your client's functioning changes. You should realize that follow-up will be important, since recommendations that are made earlier in the course of recovery may need to be adjusted significantly over time. On the other hand, if you are referred a client with moderate to severe TBI at one year or more after injury, the individual is likely to demonstrate a more long-standing pattern of needs. Although additional recovery and functional changes are possible, such changes are likely to be more gradual and your recommendations are likely to be relevant for a longer period of time.

- Knowledge of Community, State, and National Resources: Where can my client seek additional information about TBI? Where can my client obtain additional support services?



Social workers are often consulted for assistance with both finding and accessing resources. Many members of the healthcare team often look to the social worker to provide such assistance. Knowledge of appropriate local, state, and national resources will help direct persons with TBI and their family members to agencies and services that may improve their community participation and quality of life.

There are two important national organizations that may be of use: one is the Brain Injury Association of America (BIAA) and the other is the North American Brain Injury Society (NABIS). A brief description of these organizations follows:

- Brain Injury Association of America: The Brain Injury Association of America (BIAA) was formed in 1980 to be the leading national organization serving and representing individuals, families and professionals who are affected by TBI. The organization has a network of more than 40 chartered state affiliates, as well as hundreds of local chapters and support groups across the country. The objectives of the organization are to provide information, education, and support to assist the 5.3 million Americans currently living with TBI and their families. You can contact the BIAA at 1.800.444.6443 for information and resources and/or visit: www.biausa.org.

- North American Brain Injury Society: The North American Brain Injury Society (NABIS) was founded in 2003 as the American chapter for the International Brain Injury Association (IBIA). NABIS is a society made up of professional members who are involved in the care or services of persons with brain injury. The main focus of NABIS is to work toward the translation of brain injury research into clinical practice. This focus is specifically addressed through the provision of educational programs and scientific updates. You can contact NABIS at 1.713.526.6900 or 1.703.960.6500, and/or visit: www.nabis.org.

College and university students with TBI and/or their parents can be encouraged to contact their school's disabilities office to discuss possible accommodations that may ease the return to an academic environment. Parents of students with TBI who are in grades kindergarten through 12 can be encouraged to contact the school's special education department to plan their child's transition back to school.

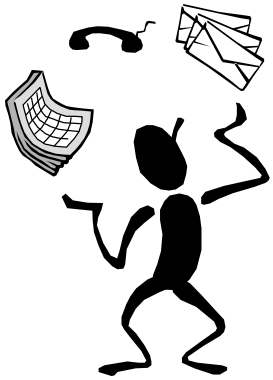
The following list includes various resource needs to consider for persons affected by TBI:

- Information and General Assistance
- Assistive technology
- Transportation and driving
- Substance abuse treatment
- Financial assistance
- Support groups
- Medical Care
- Attendant Care
- Psychiatric and psychological treatment
- Education and employment
- Leisure and recreation

Skills:

Skills that would be helpful to assist in case planning for your client with brain injury include the following:

- Balance Client/Family Hopes with Current Functional Status and Point in Recovery.
- Apply Effective Communication Skills to Approach Potential Role Changes within the Family and Cultural System.
- Identify and Maintain a Listing of Appropriate Resources.



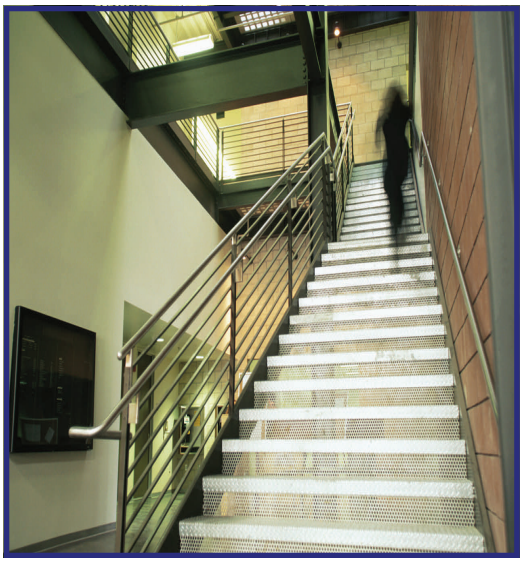
- Balance Client/Family Hopes with Current Functional Status and Point in Recovery: In identifying intervention goals, how can I best balance the needs and wishes of my client with their current functional abilities and their time point in recovery? How do I engage my client in a process to identify intervention goals that may be a compromise between current desires and abilities while maintaining hope?

In your interactions with clients with TBI and their family members, it is important to balance the need for hope with the need for information, realistic planning, and goal-setting given the severity of injury, stage of recovery, and current functional limitations. As noted earlier, attention to potential grief, loss, and self-esteem issues can help contribute to sensitive and effective case planning for both client and family.

To review, most persons with uncomplicated mild TBI experience recovery of their symptoms within the first three months after injury. Persons with more severe injuries experience significant improvements within the first year after injury, with more gradual improvements noted up to two years post-injury. Even after these initial years post-injury, many will continue to make functional improvements due to the utilization of strategies and supports. It is difficult to make accurate predictions about a person's future functioning during the very early stages of recovery from a moderate to severe injury. We know that almost all persons improve after TBI, and we know typical problems that are experienced by persons with TBI. But we also know that everyone is different, so we must keep in mind the unique nature of each injury and recovery. For persons with moderate to severe TBI who are in the very acute stage of recovery, we do not necessarily know how much better they will get or what problems they may experience in the future. Therefore you should refrain from making overly positive or overly negative assumptions and predictions.

In the early stages of recovery, following stabilization of life-threatening medical issues, clients with TBI and their family members benefit from education about TBI and reassurance that symptoms are normal and are expected to improve over time. Persons with TBI who are beyond the improvement period for their injury severity can still make improvements in their functional status. Factors such as the use of compensatory strategies and assistive devices, good emotional and physical health, and support from family and friends can all contribute to functional improvements in the more chronic stages of injury. For example, a person with a mild TBI who is still experiencing problems with irritability at 6 months post-injury may benefit from a mood management intervention. A person who experienced a severe TBI 15 months ago and has problems with memory may benefit from a referral to a rehabilitation professional for training in the use of a memory notebook.

As noted above, it is important to balance hope with the client's current functional limitations. For example, return to driving would not be a realistic goal for a client with significant visual disturbances who is three years post-injury. Instead, the goal can be modified based on the client's limitations. In this example, the social worker may work with the client to find ways to increase his independence with transportation (e.g., public transportation options, bus training, cabs). It may actually be counter-productive to confront the client with how he will "never" return to driving because of his visual problems. Instead, the focus should shift to how the client can be more independent with transportation despite his inability to drive in his current situation. The concepts of "never" and "can't" can be disheartening for both clients with TBI and family members. Rather, the focus should be on what the client can do, and the accommodations and compensatory strategies needed to maximize functioning in his or her environment.



- ## Apply Effective Communication Skills to Approach Potential Role Changes within the Family and Cultural System:

Discussion of role changes within the family and cultural system will most likely occur during the post-acute and chronic stages of recovery. Family members require time to adjust to and process their loved one's injury. Awareness of their loved one's cognitive deficits may increase as the individual with injury has more time within the community and attempts to take on various tasks. Therefore, understanding of the functional limitations and implications of such limitations on family roles will often increase as time passes. Increased awareness of functional changes may be associated with greater openness toward exploration of potential changes in family roles. Exploration of potential role changes and how the family can adapt to changes in the family system may help strengthen the support system.

In order to approach these issues within the family system, one should be sensitive to the importance of the current family role structure and the cultural background within which such family roles exist. While one should avoid stereotyping, it is important to keep in mind that in various cultures, family roles may be perceived differently and the openness that the family system may have to changing such a structure may be more or less limited. You will want to spend some time asking the client and family to describe their family and family roles to you, rather than making assumptions about such roles and family structures. Therefore, your most important communication skill may focus on active listening skills to determine who the key players are and identify possible resistance to potential changes. It will be important to facilitate having the family generate various ways in which roles may be modified that are consistent with their preferences and culture. Discussions about role changes may need to involve extended family members, including members viewed as having primary decision-making roles for the family.

- ## Identify and Maintain a Listing of Appropriate Resources: What resource needs are most relevant for my client(s) with TBI?

Identification and maintenance of a listing of resources is necessary for appropriate community referrals for persons with TBI and their caregivers. A sample listing of community, state, and national resources for the local site in Houston, Texas, is located in Appendix II. You may wish to assemble a similar list for your own local practice environment. In addition to local and state services, a number of potential websites and national organizations may be useful sources of information and are presented in Appendix II.

In addition to these community resources, you may wish to pull together a list of local or regional healthcare providers that may be able to assist your clients with TBI. The following is a list of healthcare professionals that may be of use when considering referral options for clients with TBI, including a brief description of their areas of expertise. While this list is not exhaustive, it outlines a number of professionals who may be useful to your clients:

Physiatrist: Physiatrists are physicians who specialize in the rehabilitation of neurological conditions including TBI, stroke, and spinal cord injury. They also treat musculoskeletal injuries, pain syndromes, and sports injuries. Other specialists who may be helpful to your clients include behavioral neurologists and neuropsychiatrists.

Neuropsychologist: Neuropsychologists are clinical psychologists with advanced training in brain-behavior relationships. They specialize in the assessment of cognitive functioning. Neuropsychologists often evaluate persons with neurological disorders, including TBI, stroke, and dementia. Neuropsychological evaluations will include a description of the client's cognitive strengths and weaknesses, and recommendations about intervention strategies and referrals that may be of benefit to the client.

Speech Language Pathologist: Speech language pathologists specialize in the assessment, diagnosis, and treatment of language and cognitive communication disorders. They also evaluate and treat swallowing problems.

Occupational therapist: Occupational therapists work with clients to maximize performance of activities of daily living and to compensate for any residual deficits that may negatively impact task performance.

Physical therapist: Physical therapists work with clients to improve their ability to move and function within their environment, and to restore and maintain fitness and health.

Rehabilitation counselors: Rehabilitation counselors specialize in working with clients with disabilities. They provide personal and vocational counseling and coordinate vocational training and job placement services for their clients.

Recreation therapist: Recreation therapists provide recreation resources and opportunities to improve health and well-being in persons with illnesses or disabilities.

Key Points to Remember

- When identifying goals for treatment, balancing the perceptions of your client and his/her support system will be important, especially for clients with more severe TBI who may have impaired self-awareness. For those with impaired awareness, you will want to validate the client's goals and work towards short-term or intermediate steps that may help them attain that goal or a related goal.

- When planning treatment, you will want to consider both the severity of the initial injury and your client's time point post-injury. Goal-setting will likely be quite different for clients in the acute phase post-injury versus those who are likely to be dealing with more chronic post-injury issues.

- Referral to community resources may be helpful to your client with TBI and his/her family, as well as to you as a healthcare professional. The Brain Injury Association of America, the North American Brain Injury Society, state vocational rehabilitation services, and college or university Disability Services offices can all be wonderful sources of information and support.

- Utilize your therapeutic skills to assist clients and families in planning and goal-setting. You will want to balance the need for hope with the need for information, keeping in mind that issues of grief and loss are common among those affected by TBI.

- Keep in mind issues such as the current role structure and client's cultural background when approaching potential role changes that might be necessary after injury, whether these be temporary or permanent.

- Spend time collecting a list of available local, regional, and national resources that may be helpful to your clients with TBI and/or their family members and friends. This list should include organizations as well as individual providers that may be useful for such clients.

Intervention:

This phase involves the implementation of an intervention plan that has been developed based on input from both the social worker and the client(s). Interventions require the application of knowledge, and utilization of skills and contacts, to assist the client in reaching mutually defined goals. Social workers often serve as persons who can assist clients in networking with resources within the community and in utilizing personal coping skills to achieve their goals. Additionally, the social worker frequently acts as a client advocate.

Attitudes:

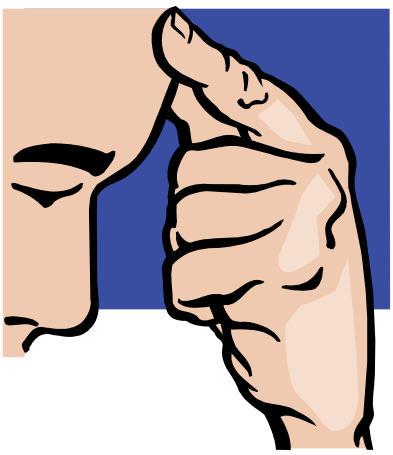
Interventions can be affected by attitudes that can be held about clients who may appear unmotivated by the treatment plan due to initiation deficits, by perceptions regarding a client's compliance with treatment that can be related to cognitive impairments, by beliefs about the role of caregivers in interventions, and by willingness to be flexible and creative in adapting established clinical practices to address client needs.

- Am I willing to consider that persons who appear "normal" may in fact be experiencing difficulties with cognition or functional abilities? *(Mild TBI; Acute and Long-Term)*
- How comfortable am I in working with clients who may desire greater service needs than appear warranted by information obtained during data collection? *(Mild TBI; Long-Term)*
- How do I feel about having family members and/or other support system members involved in interventions? *(Mild, Moderate/Severe TBI; Acute and Long-Term)*
- How willing am I to adapt my established clinical practices to meet the cognitive needs of my client with TBI? *(Mild, Moderate/Severe TBI; Acute and Long-Term)*
- Am I comfortable in working with clients who may appear "unmotivated" due to poor awareness? *(Moderate/Severe TBI; Acute and Long-Term)*
- How do I feel about the use of spirituality and humor as coping strategies? *(Mild, Moderate/Severe TBI; Acute and Long-Term)*
- How comfortable am I in working with clients and their family/support systems in addressing compliance issues? *(Moderate/Severe TBI; Acute and Long-Term)*
- Others:

_____
_____
_____
_____
_____
_____

Knowledge:

Increasing your knowledge base regarding interventions that address client needs and the needs of the client's support system should help you to identify relevant issues and techniques to improve your service delivery for clients with TBI. In addition, consideration of issues related to the method in which you deliver services for this population may be of benefit. Some of the areas of information that you should be familiar with include:



- Client Needs:
  - Impact of Awareness on Commitment and Compliance to Treatment Plan
  - Practical Compensatory Strategies for Commonly Experienced Problems
  - Utilization of Strengths to Maximize Function
  - Knowledge of Adjunct Resources that can Address Functional Limitations
  - Knowledge of Coping Strategies to Address Adjustment Issues
  - Impact of Financial Resources on Access to Services
- Support System Needs:
  - Impact of Caregiving on Health and Well-Being
  - Awareness of Resources and Application Processes to Gain Access to Services
- Service Delivery Needs:
  - Ways to Adapt Clinical Practice for Persons with Physical, Cognitive, Emotional, and Behavioral Limitations to Maximize Client's Ability to Benefit

Client Needs:

- **Impact of Awareness on Commitment and Compliance to Treatment Plan:** How does my client's level of awareness of their own strengths and limitations impact their willingness to commit to or comply with intervention goals/plans?

Impaired awareness, which is a failure to recognize deficits caused by a brain injury, is very common following moderate to severe TBI. As already presented in this manual, problems with awareness are often confused with denial; however, they are distinct phenomena. To review, impaired awareness of deficits is a consequence of the traumatic insult to the brain, whereas denial is viewed as a psychological reaction aimed at defending the self.

Persons with TBI may experience different levels, or degrees, of impaired awareness. Some persons have very poor awareness and report that they are not experiencing any problems as a result of the injury. Some possess **intellectual awareness**, which means that they acknowledge that they are having problems (e.g., "my memory is bad now") and may recognize the extent to which such problems can impact daily functioning, but are unable to recognize the problem when it occurs. Those with **emergent awareness** acknowledge a problem and how it can impact functioning, and can recognize when it is occurring, but are unable to anticipate when they might encounter such a problem in future activities. Those with **anticipatory awareness** are able to recognize a problem and its impact on activities, are aware when it is occurring, and can anticipate that the problem is likely to affect them in a future similar activity or in an activity that requires similar skills.

Persons with impaired awareness may not seem concerned by their problems, or may insist that they are able to do things as well as they did prior to the injury. They may blame other people for things they cannot do (e.g., "I can go back to work but the doctor won't let me."). Persons with impaired awareness of deficits may not be motivated or compliant with treatment as they do not perceive that they have problems or need treatment.

Impaired awareness can affect some areas of functioning and not others. For example, persons with TBI are often more aware of physical deficits than cognitive deficits. As a result, someone may express greater commitment to physical therapy than to cognitive therapy aimed at improving functional memory skills.

- ## Practical Compensatory Strategies for Commonly Experienced Problems: What can I advise my client to do to help with problems experienced after TBI? How can I adjust my own expectations of my client to be most effective in our interactions?

The following section will list several practical suggestions that you might be able to provide to your client with TBI or that you might use in your own interactions with your client. Remember that not all ideas will work for everyone. Some of these suggestions are more suited for persons with mild problems, while others are more appropriate for persons with more severe difficulties. While some of these suggestions are geared toward your clinical interactions, these practical suggestions can also be shared with family members for use in the client's home setting. In addition to these suggestions, you can always try to refer your client to their physician to request a referral to a specialist (like a speech language therapist, occupational therapist, physical therapist, neuropsychologist, etc.) who can provide additional services.

What to do about movement problems:

- Accept that your client will take longer to walk and to move around.
- Allow extra time to get ready for and to get to activities and appointments.
- Consider movement problems when evaluating transportation needs.
- If walking or balance problems are very problematic, find out if there are any activity limitations recommended by the client's physician (for example, not being able to climb ladders or perform certain physical job demands, etc.).
- Encourage client to place things within easy reach so he or she can access them easily.
- Encourage your client to talk with their physician about possible referrals for physical therapy, occupational therapy, or for equipment (for example, walker or cane).

What to do about visual problems:

- Encourage client to talk with his or her doctor about the problem, if this has not already been done.
- Find out if your client has any activity restrictions due to visual problems (for example, restriction from driving or some sporting activities).

What you can do to help get around problems with taste and smell:

- Your client may wish to add extra spices to food or select restaurants with spicy or flavorful food choices.
- Encourage your client to have a smoke alarm in their house so they do not have to rely on smell to know that there's a fire. A carbon monoxide detector would also be a good idea.

What to do about tiredness:

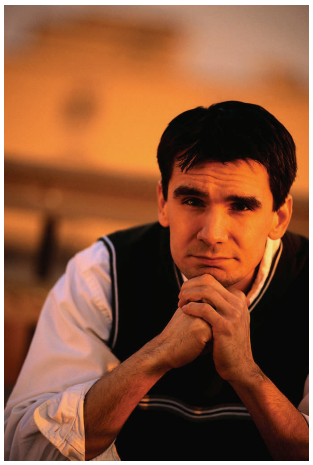
- Understand that feeling tired is normal after injury.
- Allow extra time for rest between activities.
- Schedule shorter activities at first and gradually build up to increasing numbers and lengths of activities as your client gets stronger and able to tolerate them.
- If your client reports trouble with sleeping at night, encourage them to talk to their doctor about medications that could help.
- Encourage your client to schedule appointments and activities for times of day when he or she is most awake and alert OR if fatigue is a problem, encourage them to rest prior to appointments or activities.

What to do about memory problems:

- Encourage your client to use a "memory system" to help keep track of appointments and planned social activities, phone numbers, and so forth. This can be as simple as a notebook divided into sections or a day planner, or it may be as fancy as an electronic organizer. Possible sections include: a calendar, a daily list of things to do, and an address book with important phone numbers and addresses. Everyone's needs are different, so your client will need to personalize the system to address his/her needs. Make sure that the client begins to use the system as part of his/her daily routine.
- Allow extra time for your client to learn new things. Keep in mind that they may learn more slowly than they did before the injury.
- Repeat things that you want them to remember more than once. Repeating things over and over makes it more likely that they will remember.
- Have your client write down important information in their notebook, to-do list, or calendar. Or, if writing is a problem for your client, you or a family member can write the information down. For example, if you want them to remember instructions on how to reach an office for an appointment, have them write the directions down. If there are tasks that the client needs to complete during the day, these can be written on a "to-do" list.

- If your client repeats himself or herself during conversations by retelling the same story, you might want to cue them by saying something like, "Yes, you had just told me about that."
- Encourage your client to keep household items in specific places. For example, have a hook for keys or a special file for medical papers. Label drawers or cabinets with their contents. You can also work with your client to keep a list of the locations of items within the memory book.
- Your client may benefit from the use of a pill box with sections for the days/times to help with taking medications.

What you can do to improve attention:



- Encourage your client to keep their home and work setting free of clutter. Your client will benefit from keeping things organized and in the same place.
- When working on a task, your client may want to put away everything except the items they are working with at the time. That way, there will be limited distractions.
- Encourage your client to work on only one thing at a time.
- When telling your client something you want them to pay attention to, minimize background noises. Encourage your client to do the same (limit background noises like TV or radio) when talking with others, like friends or family members. Encourage your client to turn off the TV or radio when not watching or listening to them. The fewer sources of distraction, the easier it is to pay attention to conversations.
- If attention is a problem, it might be important for your client to limit the number of people that are around at one time. Large crowds may make it more difficult for your client to attend to conversations. Searching for quieter settings with fewer people may make it easier for your client to participate in the talk and activities of the group. This may also mean trying to modify the work setting to be in a quieter area of the office, for example.
- If your client gets stuck on one idea or task, you and the client's family members can gently direct attention to a new task or idea. For example, say "We are no longer talking about that; we are now talking about…."

What you can do to get around communication problems:

- Allow more time for your client to answer you or explain what he or she wants. Encourage them to speak slowly and not to be nervous about finding the right word.
- Encourage your client to use gestures or signals (for example, hand motions and facial expressions) to help express themselves.
- Develop a signal that will let your client know when they have gotten off topic. For example, you could hold up your index finger to let them know they are off topic. Encourage the family to use the same signal. If signals don't work, try saying, "We were talking about… " Encourage the family to use kind words and a gentle tone of voice. This will make it easier for your client to accept what they have to say.
- When talking to your client, you and the family can ask them every so often if they understand what's been said. When telling them something important, you may ask them to repeat the information.
- Encourage your client to ask for information to be repeated if they don't understand. Reassure your client that they needn't be embarrassed about asking others to repeat things; we all have to do this sometimes.

- When possible, encourage your client to try to have only one person at a time speaking to them.
- Praise your client when they start appropriate conversations on their own.
- If your client starts talking about something that is too personal or may be offensive to others, you may want to develop a signal to help let them know that this is occurring. You might hold up your hand or use some other signal that you and your client have agreed upon. Again, you will want to encourage the family to use the same kind of signal. Later, you might discuss the situation with your client and discuss what made you uncomfortable and how this could affect relationships with others. You can encourage your client to stick to "safe" topics, like talking about sports, the news, or the weather with persons they do not know well.

How to help with visuospatial problems:

- Arrange things in your interactions to make it easier on your client. If he/she has trouble attending to things on their left, place objects in the right side of space and approach them on the right side. If they have trouble looking toward the left side of the page when reading, draw a red line down the left side of the page and encourage your client to find the red line before reading each line of text.
- If there is a concern about safety due to visuospatial problems, like for cooking, playing sports, or using tools, make sure that you or another adult is available to observe or assist with such activities.
- Find out if your client has problems with their visuospatial abilities that affect their ability to get around in the community. Sometimes, visuospatial problems will prevent a person from being able to return to driving, etc. Reinforce with your client that he/she should not drive unless they have been released to drive by their doctor. If they are interested in finding out more about driving, ask them to speak with their physician. There are special driving evaluation and training programs that are available to assess driving safety.
- Show them around new places many times. Do not send them to new places alone if visuospatial skills are a problem.

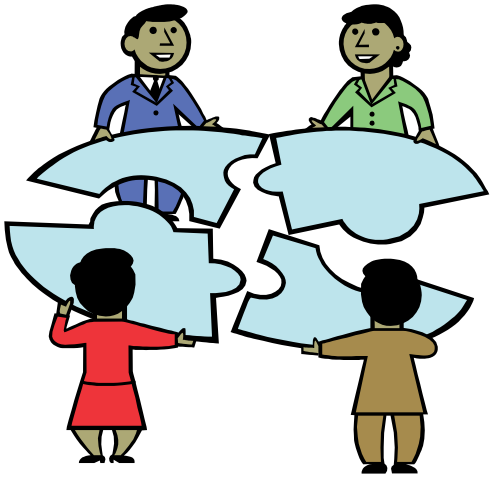
What to do about slowed thinking and responding:

- Allow your client extra time to answer questions, read things, or learn new information.
- Your client may have trouble thinking quickly in an emergency situation. Have your client carry emergency contact information with them at all times. Write down emergency procedures and encourage them to stick the notes on their refrigerator at home.
- Encourage your client to ask others to slow down or repeat information if they have trouble understanding what has been said.
- Slowed thinking and responding have implications for driving safety. If your client has problems with slowed reactions, is currently driving, and has not been evaluated for driving safety, encourage them to stop driving and to seek a driving evaluation.

How to help with organization problems:

- The memory book described in the memory section could help your client with organization problems as well. Have them use it to keep track of their daily schedule and things that they need to do. Encourage them to check it every day. Make checking the book a part of their routine.
- Work with your client to break tasks down into smaller steps. For example, getting ready to leave the house in the morning can be broken down into: taking a shower, getting dressed, eating breakfast, getting stuff together, and leaving the house. For some people, just major steps will be enough, for others, tasks may need to be broken down into detailed steps.
- Use checklists to help your client organize activities. The checklist can be adapted for use for everything from daily household chores to tasks that need to be completed in a work setting. It can be finely detailed, or just cover the overall goals. Your client can get in the habit of referring to the checklist and marking off each task or step that has been accomplished.
- If your client has trouble getting organized to leave the house for activities or appointments, encourage them to get some things ready the night before. For example, they can choose what they will wear the night before and lay the clothes out. They can also use a checklist to help them get ready. All the things they have to do should be put on the list.

How to help with problem solving, reasoning, and judgment:



- Help your client learn to use a system to work through problem solving, such as one containing the following steps:
  - Identify the problem.
  - Generate options.
  - Evaluate the pros and cons for each option.
  - Choose and evaluate outcome.
- Encourage your client to use this strategy whenever they have a problem to solve. Sharing this strategy with family members/friends may help the client to use this approach in their daily life.
- Talk with your client about ways that they can ask for help from trusted others when needing to make decisions.
- Talk with your client about potential safety issues (for example: handling and managing money; sharing personal information with new persons). Help your client generate options for handling potential “high-risk” situations. Assist your client with evaluating each option and with identifying the safest option.

How to help with poor initiation:

- Understand that this problem is a result of the brain injury—your client is not being lazy. It will be especially important to help the family and/or support system understand that initiation problems are often seen after TBI and are not due to motivational issues.
- Help your client come up with daily social activities that they like or need to do. You may ask them what activities they would like to do, but don't be surprised if they say they don't want to do anything. You may have to choose activities for them at first. Give them a choice among 2 or 3 different activities. Make the activities a part of their routine, so that it will become a habit for them.
- Make checklists for this set of activities to help them initiate and plan.
- Find something that your client really enjoys, like a television program or a certain kind of food. Have the family use this as a reward for being more active. For example, if your client takes a walk around the block in the afternoon, they can watch the television program.
- Help your client get involved in a support group for persons with TBI or an activity or group that meets on a regular schedule. Having a social activity that can become part of a routine may help your client increase their activity.

How to handle poor awareness or denial:

- Be patient. Your client is not ignoring problems on purpose. In some cases, the brain injury makes a person unable to recognize problems. In other cases, denial is a way of dealing with the losses they've experienced.
- Point out problems when they occur, but do this in a kind and calm way. Do not yell or get angry with them.
- When it is safe, let them make mistakes on their own. This may sometimes be the only way to make them see what problems they have. Remember to talk things over with them after they make the mistake. Help them think of a way to get around their problems next time.

What you can do to help manage impulsivity:

- Gently stop your client when they are acting without thinking. Talk calmly to them about the consequences of what they are doing.
- Develop a special signal that can be used to let them know when they are doing something inappropriate (for example, holding up a finger or saying a special word).
- Encourage family members to remove items that could be used dangerously, if impulsivity is a problem for your client. For example, a family member may need to hide the car keys to prevent the client from driving, if safety issues are present.

What to do about depression:

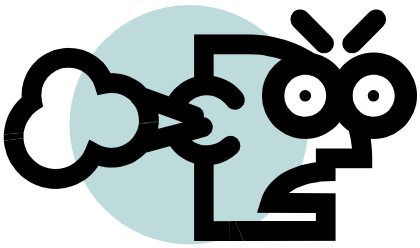
- As with other clients you may encounter with depression, therapy or referral to a physician for medication management may be appropriate. Keep in mind that some signs of depression are also symptoms of brain injury (low energy, poor attention/concentration). Consider referring to a physician that is familiar with brain injury, such as a physical medicine and rehabilitation doctor, if available.
- Help the family understand that feeling sad is often a normal reaction to loss. Depression can sometimes be a positive sign because it may mean that the client has become more aware of some of the challenges they are facing.
- Encourage family to let their loved one talk to them about their feelings and to let them know that they support them. Also, family can let their loved one know that they realize how much the injury has changed things.
- Encourage your client to get involved in activities that will take their minds off feeling sad. Activities where they can help others may be especially helpful, but any increased activity would be a good thing. Exercise can be especially good.

How to handle overly emotional behavior:

- Encourage the family not to get upset with your client—such behavior is not their fault.
- Do not pay too much attention to this kind of behavior. For example, if they begin crying loudly while watching a television show, try to ignore it. Paying lots of attention to these emotional behaviors may increase the behavior.
- If possible, remove the thing that they are reacting to. Persons with this problem are often distracted fairly easily. For example, changing the topic of the conversation, changing the television station, etc. can change their emotional behavior.
- This problem will be worse in times of stress. Help your client to avoid stressful situations by encouraging them to plan ahead.

How to handle anger and temper tantrums:

- Understand that being irritable and getting angry easily can be due to brain injury, and try not to take it personally. Help the family to understand this as well.
- When possible, ignore bad behavior like yelling or cussing. Paying too much attention to it can sometimes make the behavior worse.
- Lay down some communication rules. Help your client know that it is not acceptable to yell at, threaten, or physically hurt others. Let your client know that you will not talk to them when they act this way. Let them know that it is okay to let you know when they are upset about something, but that they need to do it in a calm way.

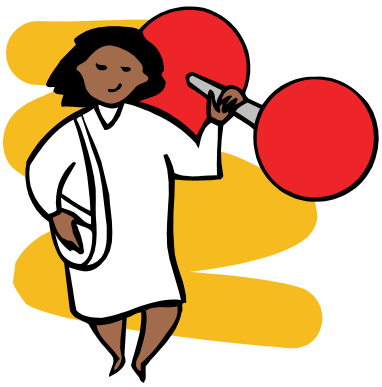


- Develop a signal that you can use to help your client recognize when their anger is getting to be a problem. Encourage your client to use this signal as a cue to take a "time out" to calm down.
- Utilize "time outs" to address angry outbursts. Let the client know that you will request a "time out" when they are yelling or throwing a temper tantrum. You will either leave the room or not engage in conversation for a period of 5-10 minutes and will be coming back to talk to them if they've calmed down, but that you will leave again if they are not. When they've calmed down, you can discuss the matter that made them angry if it is still important to them. Help your client learn to initiate "time outs" when they feel that their temper is rising.
- Reward your client for discussing the problem that upset them in a calm and pleasant way. Let them know that you think their point-of-view is important. Encourage family members to do likewise.
- If you are concerned that your client might act out physically, you may need to help come up with a plan for dealing with the situation. If violent acting out is occurring in the home setting, you may need to discuss with the family options for handling this situation, including potential treatment, alternative living settings, etc.

What to do about inappropriate or embarrassing behavior:

- In a calm way, let your client know that this behavior is wrong and bothers other people. Do not yell or lose your temper because that may actually lead to more inappropriate behavior.
- Come up with a signal you can use to let your client know when he or she is acting inappropriately. For example, you could hold up your hand to signal "stop," shake your head no, or say a special word you have both agreed on. Make sure you practice this with your client so they know what the signal means.
- Remember that the injury can make it hard for some individuals to always act appropriately, so the first goal should not be to have no inappropriate actions at all. You can start off with the goal of not more than one. Or you may make the goal that your client will stop inappropriate talk or actions when you give the special signal. As time goes on you can increase the goal, so that it is eventually no inappropriate talk or actions. Be sure to compliment your client when they go on an outing and act appropriately.
- If there is a situation where your client is embarrassing you by acting inappropriately, stop whatever activity you are doing. This could mean taking a "time out," similar to what was described in the section on anger.

- Or, if inappropriate or embarrassing behavior continues or is extreme, you might need to end the activity. If that happens, state in a calm voice that you will have to end the activity because of the specific behavior. This will help your client learn that they can only participate in activities within the community if they act appropriately.
- Professional attire is particularly important when interacting with clients with issues related to disinhibition and hypersexuality.



- **Utilization of Strengths to Maximize Function:** How can my client's physical, cognitive, emotional, and behavioral strengths be used to increase his/her functional abilities?

As presented in previous sections, persons with TBI are likely to have a number of areas of relative strength after injury. In fact, the vast majority of individuals with mild to moderate TBI have many areas of residual physical, cognitive, emotional, and behavioral strengths. In general, for persons with more severe TBI, the likelihood is that more areas of functioning may have been affected, yet still a number of strengths exist.

In working with your client with TBI, it will be important to help the individual leverage their areas of strength to "get around" problem areas. For example, a client with mild TBI may experience difficulties with attention and concentration, but has always had good organizational skills. You can help your client utilize such organizational skills to minimize the attentional demands that may be present in his/her work environment. Minimizing such demands on an area that is problematic for them may help your client to maximize his/her output in the work setting.

For a client with impairments in a number of areas, one may need to be more creative in utilizing areas of relative strength to compensate for problem areas. For example, a client that may have severe memory problems, poor organization, and distractibility may be able to use intact reading and writing skills to help them effectively follow and use a checklist to complete daily tasks. In helping your client work toward goals, you will likely need to be creative in helping come up with various ways that strengths can overcome weaknesses.

- **Knowledge of Adjunct Resources that can Address Functional Limitations:** From what other services might my client with TBI benefit? If my client has needs that I don't feel comfortable addressing, what are some appropriate referrals to make?

Social workers are often consulted for assistance with accessing resources that are needed to compensate for functional limitations. Knowledge of appropriate local, state, and national resources will help direct persons with TBI and their family members to agencies and services that may improve their community re-integration and quality of life. As noted previously, some important resource areas for persons with TBI with functional limitations include:

- Information
- Medical Care
- Driving/transportation
- Assistive technology
- Attendant care
- Emotional, psychological, & substance abuse services

- Education & Employment
- Financial Assistance
- Legal/advocacy
- Leisure & Recreation
- Support Groups
- Housing

It is strongly recommended that you compile a list of resources in your local area, as well as regional, state, and national resources that may be of benefit to your clients with TBI. In the back of this book, you will find a sample listing of resources for the local Houston metropolitan area. You may use this model and add resources that are relevant in your local communities.

In addition to these community resources, you may also wish to pull together a list of local or regional healthcare providers that may be able to assist your clients with TBI. The following is a list of healthcare professionals that may be of use when considering referral options for clients with TBI. More extensive descriptions of their areas of expertise are provided on page 73.

- Physiatrist
- Neuropsychologist
- Speech-Language Pathologist
- Occupational Therapist
- Physical Therapist
- Recreational Therapist
- Rehabilitation Counselor
- Vocational Specialist
- Neuropsychiatrist
- Neurologist specializing in neurorehabilitation
- Orthopedic Surgeon

- ## Knowledge of Coping Strategies to Address Adjustment Issues: What coping strategies may be helpful to assist my client with emotional/ behavioral issues after TBI?

Coping strategies can have a significant impact on the emotional adjustment of persons with TBI. Maladaptive coping strategies, such as use of alcohol or illicit drugs, can contribute to poorer vocational and independent living status after injury, emotional and behavioral deterioration, increased risk of re-injury, and reduced life satisfaction. Coping that is characterized as emotion-focused, such as worrying, use of wishful thinking, self-blame, or ignoring the problem has been associated with significantly higher levels of depression and anxiety. Active coping strategies, such as those which focus on problem-solving, seeking information, and seeking social support have been associated with better psychological adjustment following TBI.

Some specific coping strategies that may assist your client with TBI include the following:

- Teaching a structured problem-solving technique
- Learning to recognize and change maladaptive thinking
- Relaxation training
- Pleasant events scheduling
- Seeking information
- Seeking social support

- Impact of Financial Resources toward Access to Services: What resources does my client have available to them to assist with accessing community services?

Although unfortunate, it is a reality that funding issues will limit the extent to which your client with TBI will be able to access services, supports, and technologies that may maximize their daily functioning and quality of life. Identifying all the possible current financial, material, and social support resources that your client has available to them will help in determining what services are possible. It will also help in identifying what potential resources might be available to assist your client in accessing community services.

Social workers are often in the position to help clients in identifying such community resources and helping the client to network to obtain resources. In the case of clients with cognitive impairments, such as some clients with TBI, your role may also need to include assisting the client to complete applications for assistance with resources. Or, it may involve including the family or other members of your client's social network to complete such applications. Potential areas to explore for financial or resource assistance for your client with TBI include, but are not limited to:

- Social Security Disability Insurance (SSDI)
- Supplemental Security Income (SSI)
- Medicare
- Medicaid
- Worker's Compensation
- State Vocational Rehabilitation Services
- Crime Victims Assistance
- County medical care assistance
- Advocacy, Inc.
- Legal Aid
- Energy Assistance Programs
- Identification of local services offered on sliding-scale or pro bono basis

Support System Needs:

- Impact of Caregiving on Health and Well-Being: How might the role of caregiving affect a family member or other member of my client's support system? Am I providing education/information to assist the support system in managing stressors that are involved with the caregiving role?

For most family members, life is not the same after TBI. It is important that caregivers, family members, and other involved members of your client's support system understand that they are not alone in what they may be feeling. While everyone's situation is a bit different, there are some common problems that many family members experience. You will want to spend some time talking with the family support system to listen to their concerns and to let them know that you are aware of the stressors they may be experiencing. Here are a number of ways in which changes after injury can contribute to stress among close others:

- Less time for self: Since the injury, family members and close others may find they have very little time for themselves or to do things for enjoyment or relaxation. Energy may be spent primarily on issues relating to taking care of the family member with injury. This can contribute to fatigue and may potentially impact immune responses. Yet, family members may feel as if there is no opportunity for rest.

- Financial difficulties: If the family member who has been injured is unable to return to work or returns to a job with a reduced salary, there will be fewer resources to support the household. Medical bills may also be piling up. Also, people frequently have difficulty applying for and getting disability income (SSDI).

- Role changes: As reviewed previously, there are frequently changes in roles for family members after injury. For example, someone who stayed home to take care of the house before injury may now have to work. Someone who worked before may have to stay home to take care of the person with injury. There may not be enough people to help with chores, grocery shopping, etc.

- **Problems with communication:** After the injury, communication within the family or support system may be affected. Family members may have trouble talking about their feelings. In addition, things may be so busy that there just doesn't seem to be much time to spend with other family members. The family may begin to get together solely to solve the next problem, rather than spending time just enjoying being together.

- **Lack of support from other family members and friends:** Soon after injury, the family probably got a lot of help from other people. But as time after injury goes on, the amount of help received frequently diminishes. Other family members and friends may come around less, and there may be little understanding of what the caregiver is going through. Others may not understand some of the changes in the injured family member and may seem to be critical of the way the caregiver is handling things.

- ## Awareness of Resources and Application Processes to Gain Access to Services: What resources might be available to assist the person with TBI and their family members? How might I facilitate the application process for my client and his/her support system?

As discussed in earlier sections, social workers are often consulted for assistance with accessing resources. Knowledge of appropriate resources and their eligibility requirements (e.g., residency, citizenship) will help direct persons with TBI and their family members to agencies and services that may improve their community participation and quality of life. Preparing written handouts that may facilitate the application process, such as listing the types of information that will be needed to complete applications (e.g., identification, proof of address through utility bill, etc.) may also be useful. In some cases, you may need to assist your client and/or his or her family in completing application materials, especially if reading level is an issue or if the person's primary language is not English.

Service Delivery Needs:

- Ways to Adapt Clinical Practice for Persons with Physical, Cognitive, Emotional, and Behavioral Limitations to Maximize Client's Ability to Benefit: How might I need to adapt the way I practice to meet my client's needs? How can I ensure that my office and office staff members can maximize the clinical experience of my client with TBI?

Persons with TBI may experience cognitive, behavioral, and physical impairments. While each individual and each brain injury is unique, some impairments are particularly common after TBI and may affect a person's ability to benefit from treatment. Such difficulties can directly impact your clinical interaction and may affect the mechanics of setting up appointments, etc. For example, a client with memory problems may forget scheduled appointment times, may fail to recall homework instructions, and the like. A client with dysarthria (slurred speech) or slowed speech may have difficulty in communicating their needs with office staff. These problems can be increased when communication is via telephone. The following are some tips that may be helpful in enhancing the experience of your client with TBI:

- Provide all information in writing, rather than relying on the client to remember details.
- When appropriate, involve a family member or close other to assist with recall and carryover. Also, provide all information in writing to family, so that they can refer to the information at a later time as needed.
- If memory or processing speed are areas of difficulty for your client, you may need to use more simple sentences, providing only one piece of information at a time.
- Instruct staff to provide a reminder call regarding appointments in the day prior to the set time. It may be necessary to call again on the date of the appointment as well.
- Provide education to office staff regarding some of the common communication difficulties that your client with TBI may experience. Instruct staff to exercise patience and courtesy when interacting with clients. You may need to provide specific information about a particular client's difficulties so that staff are aware of pertinent issues.

Skills:

Skills that would be helpful to assist in intervening to address goals for your client with brain injury include the following:

Addressing Client Needs:

- Ability to Balance Provision of Supportive Environment with Development of a Realistic Self-Appraisal.
- Use Appropriate Strategies to Compensate for Functional Limitations and Maximize Strengths.
- Tailor Interventions to Cultural and Educational Needs.
- Identify Resources for Provision of Needed Services.
- Facilitate the Use of Coping Strategies that have Empirical Support and/or are Culturally Relevant to Client.
- Communicate with Client and Family about Financial Resource Alternatives to Facilitate Treatment Decision-Making.

Addressing Support System Needs:

- Help Support System Understand Treatment Goals.
- Provide Opportunities to Discuss Caregiving Role.
- Communicate Effectively Regarding Strategies for Management of Caregiver Stress.
- Facilitate Access to and Completion of Application Forms to Aid Treatment Access.

Addressing Service Delivery Needs:

- Present Information to Client/Support System in Format that can be Understood and Facilitates Recall.
- Communicate Clearly with Staff Regarding Needs for Flexibility and Courtesy for Interactions with Clients with Physical, Cognitive, Emotional and/or Behavioral Difficulties.

- Ability to Balance Provision of Supportive Environment with Development of a Realistic Self-Appraisal: How might I facilitate an atmosphere in which my client feels supported and validated while having the opportunity to develop an accurate view of their strengths and weaknesses which may assist with goal determination?

One of the primary goals of your intervention with any client is to provide a supportive environment in which the client is able to explore and increase understanding of their strengths and limitations. This increased understanding can inform the development of personal and treatment goals. As discussed previously, one of the challenges in working with clients with moderate to severe TBI may be that of injury-related impairments in awareness. To review, impaired awareness is a failure to recognize problems and is a result of the brain injury. Thus, such clients may have additional challenges in understanding their own strengths and weaknesses and may require support with gentle attempts to facilitate increased self-awareness.

When working with a client with TBI and poor awareness, it may be helpful to point out problems when they occur, but it is important to do this in a calm way. When providing feedback, begin by emphasizing something positive. Then offer the feedback and re-emphasize the positive (sandwich technique). When it is safe, let them make mistakes. Such mistakes may increase their awareness of problems. It is also important to discuss the mistake and help the person generate ways to compensate for the problem. If a person does not understand that they have a problem or cannot recognize a problem when it is occurring, provide cues and modify the environment to help compensate for the problem. For example, appointments and other important information can be kept on a large wall calendar and the person can be cued to refer to it as needed. If a person has difficulty anticipating when they will experience a problem, they should be encouraged to use compensatory strategies in all situations. For example, they should carry a memory notebook or planner/calendar with them at all times.

- Use Appropriate Strategies to Compensate for Functional Limitations and Maximize Strengths: What strategies would be best suited to address the specific difficulties experienced by my client? How can my client's strengths be used to get around problem areas?

Probably one of your best tools in determining what strategies would be most helpful to your client is a careful assessment using interview, medical records, and instruments designed to measure cognitive abilities, emotional functioning, and functional status. A careful assessment will help you identify areas of weakness as well as strengths that can be used to circumvent these limitations. When strengths, limitations, and goals have been delineated, you can use the suggestions presented on pages 79-86 as a starting point to assist your client. Consultation with social work colleagues and other healthcare professionals may also be necessary to best serve your client's needs. Consulting with colleagues is always a good practice when confronting clinical situations for which you have had less experience or familiarity.

- Tailor Interventions to Cultural and Educational Needs. How may I need to adjust my intervention to meet the needs of my client with regard to cultural and educational issues?

In delivering interventions, consideration of the cultural and educational background of the client with whom you are working is always important. For some clients, that may mean that interventions might be most optimally delivered in an alternate setting, such as within the community, rather than in a clinic setting. Inclusion of family or other support system members may assist in understanding cultural expectations and addressing such issues. Collaboration and/or communication with alternative healthcare providers may be another way in which the needs of clients from various cultural backgrounds may be addressed. In general, the best way to address the needs of clients from other cultural backgrounds is to be mindful that cultural factors may be affecting your clinical interactions. In particular, mindfulness about the meaning of disability in your client's culture may be helpful in working with your client. Simply taking the time to ask questions and listening to your client and their family members or support system may make all the difference in your ability to provide quality services to your client.

- Identify Resources for Provision of Needed Services.

Spend some time networking in your local community, region, state, and nationally to help identify resources that might be able to provide services for your clients with TBI. You can use the list on page 73 to help you think about the different areas where you may wish to find providers. Great places to find resources can include your colleagues, the internet, the Brain Injury Association of America, the North American Brain Injury Society, and brain injury conferences. Create a catalog that includes the resources you find so that it will be easy to locate when a specific need is identified for a given client. If you have other colleagues working with clients with brain injury, it may be useful to work together to compile a resource list.

- ## Facilitate the Use of Coping Strategies that have Empirical Support and/ or are Culturally Relevant to Client

Cognitive-behavioral interventions have been shown to be effective with diverse populations, and there is a growing body of evidence for their effectiveness in persons with acquired brain injury. For those with cognitive impairments, the structure involved with cognitive-behavioral approaches can be very helpful. Cognitive components of these interventions include increasing awareness of maladaptive beliefs and generating more adaptive beliefs. Behavioral components include behavioral activation strategies, such as regular exercise and daily tasks which can help a person manage sad or depressed mood. Healthcare professionals can also help clients generate a list of things they can do when they are feeling sad or distressed (e.g., listen to music, call a friend, walk the dog), and clients can be encouraged to do something on that list when feeling sad. Persons with emotional issues such as anxiety or depression may also benefit from a referral to a physician for evaluation for possible medication management of depression. Additional coping strategies may include scheduling pleasant events and relaxation training.

While cognitive-behavioral approaches may be beneficial for clients with TBI, other approaches may also be useful. However, if your client has difficulties with abstract reasoning or self-reflection, methods that rely heavily on introspection are likely to have limited utility. It is also important to consider the cultural relevance of the treatment approach to your client. Again, take the time to become aware of the cultural beliefs about counseling services and/or expectations about how healthcare should be delivered.

- ## Communicate with Client and Family about Financial Resource Alternatives to Facilitate Treatment Decision-Making.

One of the biggest challenges often faced for clients and their families after TBI can be the limitations in available financial resources. After injury, frequently the person with TBI will be unable to work, at least for a period of time, and sometimes family members have to take time off from work to assist their loved one with injury. This can put additional stress and strain on family budgets. At the same time that these reductions in income can be occurring, the need to pay for rehabilitation services arises. In today's healthcare environment, a number of individuals are uninsured or underinsured and this causes additional financial stress and potential limitations in access to needed services. It will be very important to have conversations with the client and family about financial needs and to offer assistance and information about potential alternative sources of funds. These conversations can be uncomfortable for the family, and care must be taken to be sensitive to these concerns. Additionally, consideration of how cultural background may affect the comfort level that the individual or family has in discussing finances should be made. Let the client and family know about funding they may be eligible for, such as:

- Crime Victim's assistance
- State Vocational Rehabilitation Funding
- Others
- Social Security Disability
- Local governmental assistance (e.g., county hospital funding, etc.)

- ## Help Support System Understand Treatment Goals.

In working with clients with TBI, it is important to include the support system as much as possible. When cognitive problems limit the client's ability to remember information or cause difficulty in understanding complex information, it is especially important that the family be closely involved throughout treatment. The support system can help the client to understand and remember important information. The support system can also help the client implement the strategies learned in therapy within his or her home, school, work or community environment.

Some ways that you can structure your practice and/or your team's practice to facilitate family involvement can include:

- Holding an admission or start of treatment family conference, and additional interim conferences as needed
- Have family attend sessions on occasion, if appropriate
- Provide written information for client to share with family
- Hold a discharge family conference

Remember to present information that is shared with family in terms that they can understand. Try to limit professional jargon and describe client's strengths, weaknesses, and the treatment approach in a way that family can understand. Be sure to encourage the family or support system to ask questions and take the time to answer all questions to the best of your ability. As noted previously, it is also important to provide all information in writing for the family to refer to at a later time as needed. Developing a collaborative environment between therapist, client, and support system can enhance the gains that a client will make during treatment.

- ## Provide Opportunities to Discuss Caregiving Role.

Caregivers tend to receive fewer services (or no services) than the client with TBI, yet the caregiver is also likely coping with a number of changes and can benefit from support and a listening ear. It is important for caregivers to realize that they are not alone in what they might be going through. While everyone's situation is a bit different, there are some problems that many family members experience. As noted previously, common problems experienced by caregivers include less time for themselves, financial difficulties, role changes, communication problems, and lack of support from other family members and friends. It can be helpful to discuss these problem areas with your client's key support persons, and to encourage them to share their concerns and stresses with you. This can give you an opportunity to either provide or refer such caregivers for assistance. A better understanding of the family situation may enhance the services you are providing to the client with TBI as well.

- ## Communicate Effectively Regarding Strategies for Management of Caregiver Stress.

Caregivers are often under a great deal of stress. After the injury, their lives are frequently centered around the loved one with injury. Efforts are often focused on ensuring their loved one has everything he or she needs and is happy in spite of his or her problems. The caregiver often has to care for other people in the family as well, such as small children or elderly family members. Most of the caregiver's time may be spent working, caring for others, and trying to run the household. Very little time, if any, is spent in caring for their own needs. Caregivers may say that they cannot afford to take any time for themselves or that they feel guilty if they are not devoting all of their time and energies to their family. However, it will be important to try to convince the caregiver that it is equally important to pay attention to their own needs.

A little stress is part of everyday life, but chronic stress can have a negative impact on the mind and body. Stress is related to medical problems such as heart disease, cancer, and stroke. Stress can decrease the caregiver's ability to do things as well as they could because it affects the ability to concentrate, to be organized, and to think clearly. Stress also has a negative effect on relationships with other people because it can contribute to irritability and reduced patience with others. Stress can also lead to depression and/or anxiety. If the caregiver is under nearly constant stress, their ability to be as helpful to their injured family member or anyone else is decreased. Caregivers that do not take the time to rest and care for themselves are more likely to get fewer things done, which will lead to more stress. Encourage caregivers that if they don't feel comfortable taking time for themselves, that they should take the time to relax so that they can be a better caregiver for their family member. The person with TBI will be better off if their caregiver is healthy and happy.

There are several things that you can recommend to caregivers of clients with TBI. One resource that may be particularly helpful for caregivers is a manual called, "Picking Up the Pieces after TBI: A guide for Family Members" by Angelle Sander, Ph.D. You can find this manual as a downloadable pdf file on our website at the following address:

http://www.tbicommunity.org/research/publications/fameducmanual.pdf

Here are some other suggestions:

- Relaxation training
- Family Support Groups
- Exercising
- Yoga or meditation
- Counseling

- ## Facilitate Access to and Completion of Application Forms to Aid Treatment Access.

Identification and maintenance of an inventory of relevant application forms will help persons with TBI and their family members access services. Persons with cognitive impairments or limited reading skills may have difficulty comprehending and completing the appropriate paperwork. Social workers may need to assist such persons so that paperwork is completed accurately, which will increase the likelihood that services are obtained in a timely manner. Where possible, have forms on hand to facilitate access and timely completion.

- ## Present Information to Client/Support System in Format that can be Understood and Facilitates Recall.

It is key that the client and their support system understand the information that you are providing to them. Here are some suggestions about ways you can modify your practice to help facilitate understanding and recall:

When working with someone with a problem with learning or memory, the following strategies are recommended:

- Provide all important information in writing
- Repeat important information
- Ask client to repeat back important information
- Depending on the severity of the impairment, consultation with caregivers may be needed.
- Persons should be encouraged to write down important information in an organized fashion, such as a planner or memory notebook.
- Persons may need reminder calls the day before their appointment, and, if needed, reminders to bring necessary paperwork

When working with someone with a problem with attention, the following strategies are recommended:

- Conduct the session in a quiet environment with minimal distractions
- Focus on one topic at a time
- Ask client to repeat back important information
- If client is getting off topic, provide redirection and cueing to return to topic at hand

When working with someone with problems with reasoning, the following strategies are recommended:

- Provide explicit problem solving steps that the client can follow
- Provide appropriate choices if the client is unable to generate realistic plans
- Break complex activities into smaller steps, and create checklists as necessary

When working with someone with behavior problems or problems with social communication skills, the following strategies are recommended:

- Persons with TBI may have difficulty reading more subtle social cues, so it may be necessary to provide direct immediate feedback regarding the behavior. Start off by saying something positive and then provide feedback regarding the behavior. Follow this with a reemphasis on the positive. Remember to maintain a kind and gentle tone.
- Encourage the person to practice interpersonal skills with family members and friends

When working with someone with slowed speed of processing, the following strategies are recommended:

- Allow extra time for the person to process information and to respond
- Present information at a slower rate of speed, and focus on one issue at a time
- Encourage the client to ask others to slow down or to repeat information as needed

- Communicate Clearly with Staff Regarding Needs for Flexibility and Courtesy for Interactions with Clients with Physical, Cognitive, Emotional and/or Behavioral Difficulties.

One of the areas in which you can make a substantial change in your client with TBI's clinical experience is to conduct staff training to ensure that clients are treated with courtesy and flexibility. Training should include all staff members that might interact with clients, including receptionists, billing clerks, etc. Increasing staff knowledge about the potential difficulties that clients with TBI may have can prevent negative interactions from occurring. This may also enhance the experience for both your clients with TBI and staff members. Some areas of difficulty that may be encountered and tips for staff members include:

- **Dysarthria:** Some clients with TBI may have slurred speech. This can be misinterpreted as sounding like intoxication, and clients may be misperceived as being "drunk." Increasing staff awareness about this potential problem may prevent a negative interaction from occurring. In addition, staff will need to pay very close attention to clients with slurred speech, as they may be difficult to understand. If a problem, the staff member may ask the client to write down the information that is being communicated.

- **Slowed speed of processing/response:** Frequently clients with TBI may take longer to respond to questions or may take longer to get their ideas out. Encourage staff to be patient and wait for the client to complete their statement. Talking around the client by speaking only with the family member can be upsetting to the person with TBI. If clarification is needed, staff can either ask the client or the family member to clarify.

- **Memory problems:** Clients with TBI are likely to have difficulty remembering things like appointments. To facilitate client attendance, encourage your staff to do the following:
    - Provide appointment date and time in writing.
    - Call client with reminder the day before the appointment.
    - Potentially call the client on the day of appointment with reminder.
    - Provide any additional instructions needed for appointment in writing.

These are but a few of the issues that may result in staff/client misunderstandings. Take the time to let staff know if there are any modifications that you would recommend in the way that they interact with specific clients to facilitate a good clinical experience. In general, encourage your staff to use courtesy with all clients, and to come to you if they are having any particular challenge in interacting with a specific client.

Key Points to Remember

- Keep in mind that impaired self-awareness may impact your client's concern about problem areas, and thus may affect his/her motivation and compliance with the treatment plan. Therefore, developing an understanding of potential limitations in awareness that your client may demonstrate will be important.

- Although you may not be the primary healthcare professional asked to help your client compensate for physical, cognitive, affective, or behavioral changes after TBI, having a working knowledge of some compensatory strategies for such problems will be helpful and may assist with your treatment plan. This manual provides a number of suggestions that may be of practical help to your clients. Utilize these, or similar strategies, along with referrals to other specialist healthcare providers that may be able to assist your client in managing areas of impairment.

- Remember to identify and focus on areas of physical, cognitive, emotional, and behavioral strength as well as areas of impairment when implementing your treatment plan. Strengths can be used to help "get around" areas of relative difficulty. Such areas of strength, along with other strengths such as material and social supports, will be vital to your client's ability to progress toward his or her goals.

- Material and social support resources can make a tremendous difference in your client's outcome, as these resources will be instrumental in gaining access to various services. As with all clients, having a strong working knowledge of financial and resource assistance available in your community will be a vital aspect of your service delivery to clients with TBI and their families or support system. You may need to provide assistance in obtaining and completing applications for aid for those with cognitive difficulties.

- Be aware that the caregiving role can contribute to significant stress for caregivers. Ensure that you provide sufficient information to help the caregiver understand treatment goals, as well as sufficient time to allow the caregiver to discuss the caregiving role and ways to manage stress.

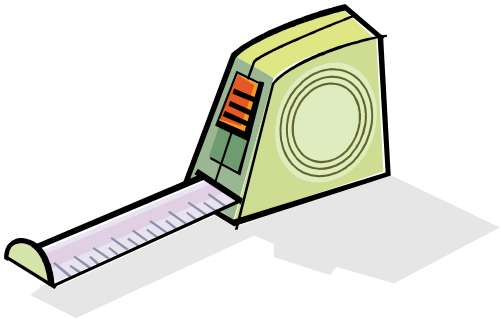
- Ensure that you modify your practice to help clients with cognitive impairments understand and recall treatment goals, appointments, and the like. Practices such as providing information in writing, consultation with a caregiver, providing reminder calls, allowing extra time for appointments, and the like may improve the success of both your treatment and the clinical experience of your client with TBI. This might involve working with all staff members in your clinical setting to facilitate understanding of common areas of difficulty that clients with TBI may experience and methods to assist such clients.

Evaluation:

Evaluation of outcome occurs at two primary levels: the client level and the program/agency level. Evaluation at the client level includes identification of client goals, assessment of actions taken in an effort to fulfill client goals, and evaluation of the outcomes associated with such actions. This ongoing evaluation process may result in redefining problems and goals and/or modifying interventions. At the program/agency level, the evaluation process is similar regarding the need to identify goals, processes, and outcomes, except the focus shifts to the agency or program level. For this manual, we will focus on evaluation of outcome at the client level.

Attitudes:

The evaluation of a clinical service or intervention can be affected by one's attitudes about attaining short-term goals versus long-term goals, by overly positive or overly negative expectations about outcomes, and by the comfort level that an individual clinician may have with the use of standardized outcome measures versus reliance on clinical judgment to determine impacts.



- Am I willing to evaluate both short-term or intermediate goals as well as long-term goals? Do I place value on the accomplishment of intermediate steps towards major goals and plan my method of evaluation to ensure sensitivity to these changes? *(Mild, Moderate/Severe TBI; Acute and Long-term)*

- How comfortable am I in utilizing client and/or family based goals as the basis for evaluation of treatment success versus clinician-identified goals? *(Mild, Moderate/Severe TBI; Acute and Long-term)*

- Do I have preconceived notions about the likelihood of either positive or negative outcomes that influence my selection of outcome measures or that bias my responses with such measures? *(Mild, Moderate/Severe TBI; Acute and Long-term)*

- What are my preconceived notions about the usefulness of standardized outcome measures versus clinician judgment as the basis for evaluating outcomes? Does this unduly influence my plan of evaluation? *(Mild, Moderate/Severe TBI; Acute and Long-term)*

- Others:

_____
_____
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Knowledge:

Increasing your knowledge base regarding methods of evaluating responses to clinical services and/ or interventions provided to your clients with TBI will enhance your ability to track outcomes. In addition to assessing the effectiveness of any intervention that is provided, the evaluation of outcomes is important to help with determining the extent to which such injuries represent a public health problem, to provide information that may improve knowledge regarding TBI, and to offer family members and healthcare professionals information that will assist with decision-making.[30-31]

In thinking about how you may conduct outcomes evaluation in your own work with clients with TBI, some of the areas of information that you should be familiar with include:

- Increasing knowledge of a commonly utilized conceptual framework to guide outcomes assessment and outline relevant factors that may impact outcomes.
- Increasing knowledge of commonly used standardized outcome measures.

- ## Increasing knowledge of a commonly used conceptual framework to guide outcomes assessment: How can I utilize an existing framework in the design of relevant outcomes assessment for my clients with TBI?

There are several different ways to define and assess outcome following TBI. A useful framework that may be helpful for the social worker in considering what to measure in determining outcomes is provided by the International Classification of Functioning, Disability, and Health (ICF), which is a classification system developed by the World Health Organization to measure components of health, functioning, and disability in all persons. The ICF model provides a conceptual framework for health-related information that can be used to assess outcome and factors that impact outcome in both clinical and research settings. The ICF has also been used in population studies, social policy development, and health care program evaluation. The organization and structure of the ICF permits a clinician or researcher to describe an individual's functioning, disability, and health in multiple domains. The model may be helpful to you in designing outcomes evaluations not only for your clients with TBI, but can be broadly applied to all clients in your professional setting. We will briefly discuss the ICF and its associated levels on the following pages and then provide an example using a hypothetical client with a TBI. Further information about the ICF can be found at the following website:

http://www.who.int/classifications/icf/en/

International Classification of Functioning, Disability, and Health (ICF):

The ICF model is comprised of two parts:

1. Functioning and Disability
2. Contextual Factors

Each part consists of two components, and each component includes four levels that are used to record the health and health-related conditions of an individual. The four levels are:

1. Domains
2. Constructs
3. Positive Aspects
4. Negative Aspects

Part 1 - Functioning and Disability

COMPONENTS:	Body Functions and Structures	Activities and Participation
DOMAINS:	Body Functions Body Structures	Life Areas (Tasks, Actions)
CONSTRUCTS:	Changes in Body Functions and Structures	Capacity Performance
POSITIVE ASPECTS (Functioning):	Functional and Structural Integrity	Activities Participation
NEGATIVE ASPECTS (Disability):	Impairment	Activity Limitation Participant Restriction

Body Functions and Structures:

- Body Functions: physiological functions of body systems, including psychological functions such as language and memory.
- Body Structures*:* anatomical parts of the body such as organs, limbs, and their components.
- Impairments*:* problem(s) in body function or structures (e.g., an anomaly, defect, or loss) that is/ are a deviation from generally accepted population standards of body functions and structures. Impairments may be temporary or permanent, mild or severe, fluctuating or constant. The presence of an impairment can be a result of a health condition, however, it does not always mean that an individual is sick or suffers from a disease. For example, blindness is considered an impairment, but a person who is blind does not necessarily suffer from a particular disease.

Activities and Participation:

- Activity: the execution of a task or an action by an individual.
- Participation: involvement in a life situation. This component includes several domains including learning and applying knowledge, communication, mobility, self-care, domestic life, interpersonal relationships, and community life. Each domain can be described in terms of capacity and performance.
- Capacity: execution of tasks in a "standardized" environment that would reflect the best level of functioning.
- Performance: execution of tasks in the individual's current environment, which may or may not be associated with the best level of functioning. Evaluating differences between capacity and performance may provide information regarding environmental modifications that may improve an individual's performance.
- Activity limitations: difficulties an individual may experience when executing activities as compared to persons without a similar health condition.
- Participation restriction: problem(s) an individual may experience in involvement in life situations as compared to persons without a similar health condition.

Part 2 – Contextual Factors

COMPONENTS:	Environmental Factors	Personal Factors
DOMAINS:	External Influences on Functioning and Disability	External Influences on Functioning and Disability
CONSTRUCTS:	Facilitating or Hindering Impact of Features of Physical, Social,	Impact of Attributes of the Person
POSITIVE ASPECTS (Functioning):	Facilitators	Not Applicable
NEGATIVE ASPECTS (Disability):	Barriers/Hindrances	Not Applicable

Environmental Factors:

- Environmental factors: the physical, social, and attitudinal environments in which people live. Such factors can have positive or negative impacts on body functions and structures, capacity, and performance. There are both *individual* and *societal* environmental factors.
    - Individual environmental factors: the individual's immediate environment (e.g., home, work) and includes the physical features of the environment and personal interactions with friends, family, and others.
    - Societal environmental factors: formal and informal social structures, community services, laws, attitudes, and formal and informal rules.

Personal Factors:

- Personal factors: age, gender, ethnicity, education, lifestyle, coping style, and other background characteristics. These personal factors are not viewed as a part of one's health, but may impact disability and/or outcome.

Disability is conceptualized as the interaction between the individual's health condition, personal factors, and environmental factors. As a result, a certain health-related condition may have a relatively mild impact on participation in a facilitating environment, but a significant impact on participation in an obstructive environment. For example, a person with TBI who uses a wheelchair may experience minimal disability in an environment that is wheelchair accessible (e.g., environment with ramps to get up curbs, wide doorways, electronic doors). The same person may experience greater disability in an environment that is not wheelchair accessible.

- Increasing knowledge of commonly used standardized outcome measures: What are some standard measures by which outcomes are currently being evaluated for persons with TBI?

When thinking about how to conduct an evaluation of outcomes, you will want to think about the level at which your intervention is likely to have an impact. Your measures should capture those areas. For example, for a person with TBI, your intervention's goals may be to help the individual to improve their memory functioning. Or, the intervention's goals may be to return the individual to a work setting. In each case, you'd want to be sure to include measures that address the primary intended outcome (e.g., improvements in memory performance or gainful employment). You may want to add other measures that address additional or secondary outcomes that you think may be affected by your service or intervention.

The following are some commonly used outcome measures used in TBI. You may wish to consider using these scales or others that might be applicable to the outcomes you wish to measure. Further information about these and other commonly used measures in TBI can be found at the following website:

http://www.tbims.org/combi/index.html

Glasgow Outcome Scale[32]: The Glasgow Outcome Scale is a widely used measure of overall outcome following TBI. It classifies persons into one of five categories according to their overall level of functioning: death, persistent vegetative state, severe disability (conscious but disabled), moderate disability (disabled but independent), or good recovery. This scale is often used in research studies of factors that affect outcome following TBI, but is not typically used in general clinical assessments. It is also relatively insensitive to clinical improvement in persons with TBI who are six months or more post-injury.

Disability Rating Scale[33]: The Disability Rating Scale is also a widely used measure of overall outcome following TBI. It is an eight-item measure that assesses eye opening, communication ability, motor response, cognitive ability to perform self-care skills (feeding, toileting, and grooming), dependence on others, and employability as a full-time worker, homemaker or student. Scores range from 0 to 29, with lower scores representing better functioning and higher scores representing poorer functioning. The Disability Rating Scale is frequently used in TBI research and clinical settings. This measure is relatively sensitive to clinical improvement in persons with moderate to severe injuries who are six months or more post-injury, but is less sensitive to change for persons with mild TBI.

Functional Independence Measure[34]:The Functional Independence Measure is an 18-item measure used to assess self-care skills, toileting, bladder and bowel management, transfers and locomotion, communication, and social cognition. Clinicians rate the level of assistance needed to perform the above activities on a 7-point scale, with 7 classified as complete independence and 1 classified as requiring total assistance. Higher total scores represent greater independence with activities, while lower scores represent greater dependence. This measure is frequently used to assess a patient's progress during inpatient rehabilitation, but is less sensitive to change with increasing time post-injury.

Community Integration Questionnaire[35-36]: The Community Integration Questionnaire is a 15-item measure used to assess community integration following TBI. Items assess integration into the home, integration into social activities, and productivity. Higher scores represent greater integration and lower scores represent less integration. This measure is often used to assess functional outcome in the later stages of recovery, once persons have been discharged from acute rehabilitation.

Craig Handicap Assessment and Reporting Technique[37]: The Craig Handicap Assessment and Reporting Technique is a 32-item measure used to assess social and community participation. It was developed for use with persons with spinal cord injury, but has also been used to measure functional outcome in persons with TBI. Items assess six domains: physical independence, cognitive independence, mobility, occupation, social integration, and economic self-sufficiency. Each domain score as well as the overall score ranges from 0 to 100, with lower scores representing poorer functioning and higher scores representing better functioning. This measure is often used to assess functional outcome in the later stages of recovery, once persons have been discharged from acute rehabilitation.

Skills:

Skills that would be helpful in developing a method of evaluation for your clients with TBI include the following:

- Ability to select and incorporate standard assessment tools in your clinical practice.
- Application of systematic approach to data collection and consideration of methods of program evaluation.

• How might I select and incorporate standardized measurement tools in my own clinical practice to facilitate the evaluation process for both client and program outcomes?

There are several skills needed for the appropriate evaluation of client and program outcomes. These include choice of outcome measure, how to administer or complete the measure, how to score and interpret the results, and how to communicate those results to clients, family members, and/or program management.

Outcome measures should be valid, reliable, and correspond to the stage of recovery (acute versus chronic) as well as to the target of the intervention or domain of expected change. For example, if you are interested in whether your intervention is going to help your client get back to work, you will want to be able to measure things like work-readiness, performance of job-related skills, and actual employment (whether employed, number days employed, etc.). Select the instruments that will provide you with the most information, while balancing your need for time-efficiency of the evaluation. Minimally, you will probably want to do some measurement at the outset of your clinical involvement and at its conclusion; however, you may find that intermittent evaluations provide you with valuable information as well. The number of times you conduct a formal evaluation as well as the comprehensiveness of that evaluation will likely depend on the length and extent of your clinical involvement.

Once you have chosen your outcome measure, your administration skills are engaged. Administration skills include choosing the proper informant (e.g., client, family member, treating healthcare professional or other (e.g., co-worker)), choosing between written or verbal administration of the instrument (depending on the skills or disabilities of your client), presenting standardized instructions, and providing clarifying information about items as needed. The scoring of the measure should be completed in accordance with published manuals, so that scoring is consistent. Interpretation of the results requires knowledge of the strengths and weaknesses of the measure, so that results are neither under- nor over-interpreted. Finally, communication of results requires that information be presented in a manner that is clear and ethnically sensitive to the recipient, whether it is the client, family member, or program management.

- ## Application of systematic approach to data collection and consideration of methods of program evaluation.

In order to ensure that data collection will take place and that you can enhance evaluation of your program or services, it will be important to set aside some time to determine how and when data collection will take place. Important things to consider include:

- Which staff will conduct data collection?
- Will data collection take place in person, over the phone, or via mailed or emailed survey?
- How often will data collection take place?
- When will data collection take place?
- What am I trying to measure?
- How will data be stored (e.g., database, paper copies, etc.)?

There are a lot of great resources available to help you determine how to construct your own program evaluation. A simple search on Google or another search engine will lead you a number of resources. One thing to consider is at what phase you are interested in evaluating. For example, your program evaluation can be one of three major types:

- Formative Evaluation happens early on in the program. The results are used to decide how the program is delivered, or what form the program will take.
- Process Evaluation is concerned with how the program is being delivered. It focuses on things like when the program activities occur, where they occur, and who delivers them. The goal is to determine if the program is being delivered as intended.
- Outcome Evaluation looks at whether the goals of the program have been obtained. In other words, the outcome evaluation examines the results of the program. Results can be of both a short-term or long-term nature.

The general process that one undergoes in conducting a formal program evaluation is as follows. You can adapt these steps to the needs and constraints of your own practice situation.

1. Engage stakeholders.
2. Describe the program.
3. Focus the evaluation.
4. Gather credible evidence.
5. Justify conclusions.
6. Ensure use and share lessons learned.

Key Points to Remember

- In thinking about designing a method to evaluate your services for clients with TBI, it may be useful for you to understand a widely used model of health, functioning, and disability provided by the International Classification of Functioning, Disability, and Health (ICF). This may assist you in defining the key areas that your services are intended to target, and will therefore assist you in defining the outcomes that you wish to measure.

- Multiple tools are available to measure various outcomes after TBI. Prior to developing your own "home-grown" instrument, it would be useful to familiarize yourself with some of the measures that have been developed and validated for use with clients with TBI. Use of such measures will likely enhance the reliability and validity of the evaluation that you conduct in your own clinic setting.

- If you wish to conduct a formal evaluation of your services, it will be important to take some time to identify a plan of evaluation and include a time point to review whether this system of evaluation is yielding the kind of data that you require.

- Consider what outcomes are important to your practice, whom will be your informants, whether verbal or written administration of instruments will be used, and which time points you will use to measure outcomes. Practical considerations such as: which staff members will collect the data; whether data collection will take place in-person, over the telephone, or through the mail or email; and how data will be stored will also assist you in planning your program evaluation.

Termination:

As with all clinical interactions, eventually the clinician-client relationship will come to an end for your client with brain injury. There are typically three primary reasons for ending the clinician-client relationship: referral, transfer, and termination. A self-assessment of attitudinal barriers, knowledge deficits, and/or skills deficits that might affect your ability to successfully refer, transfer, or terminate your treatment with your client with TBI is presented.

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Attitudes:

The ending of a clinical relationship, whether through referral, transfer, or termination can be affected by one's attitudes about letting go when additional needs may be present and by comfort in acknowledging when other providers or services may be needed to better address you client's needs.

- **How comfortable am I in ending the therapeutic relationship when additional goals/services may still be needed in the long-term?** *(Mild, Moderate/Severe TBI; Acute and Long-term)*

- **How comfortable am I in referring my clients to other services/ providers when I may not have all of the skills needed to address my client's needs?** *(Mild, Moderate/Severe TBI; Acute and Long-term)*

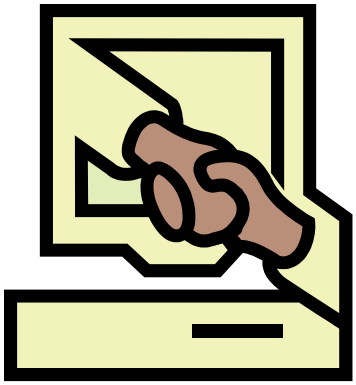
- **Others:**

_____
_____
_____
_____
_____
_____

Knowledge:

Increasing your knowledge base regarding possible resources and referral sources may be one area that can enhance the process of termination.

In thinking about how you may address termination issues with your client with brain injury, some of the areas of information that you should be familiar with include:



- Increasing knowledge of potential community resources that may be available to provide continued support to your client with brain injury.

- Consideration of extended case management models for this population which may have ongoing needs for information and assistance.

- Increasing knowledge of potential community resources: What other professional services and community-based organizations are available to provide ongoing support to your client with TBI?

Clients with TBI may have needs that are beyond the time, resources, or areas of expertise in your clinical practice. Therefore, the termination phase of your work with clients with TBI may involve referrals to other healthcare providers in addition to ending your professional relationship. You likely have significant experience and skill with ending professional relationships in your practice, but may have relatively less knowledge and skills specific to referrals for clients with TBI or with directing those clients to community resources.

One of the most important areas of knowledge that may assist your clients with TBI during the termination phase is awareness of information, resources, and other healthcare providers that may be helpful for your client. Having readily available contact information for these resources is key. Your state Brain Injury Association or the Brain Injury Association of America are excellent sources of information that can assist you in obtaining contact information. Attending presentations and conferences on brain-injury related issues is another source of resources and referrals, as well as seeking either formal or informal consultation with other social workers who have worked with clients with TBI. Social workers who work in local rehabilitation hospitals or rehabilitation settings can be additional sources.

- Consideration of extended case management: How might this approach be integrated into my clinical practice?

A period of extended case management may be beneficial to your client with TBI, provided your practice allows this. This period may be viewed as an extended termination phase, which would provide an opportunity to establish continued treatment as needed, to troubleshoot any difficulties your client has in continuing treatment with another provider or with accessing community resources (e.g., transportation difficulties), and to provide additional support for your client during this time of transition. This can involve bi-weekly or monthly phone calls, e-mail correspondence, or monthly in-person sessions.

Skills:

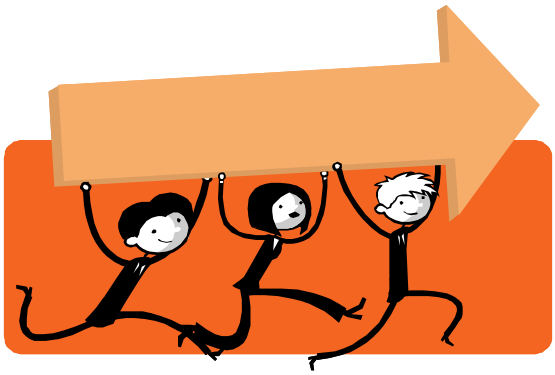
Skills that would be helpful in creating a successful conclusion of treatment and a smooth transition from clinical care for your client with TBI include the following:

- Ability to network to create a list of potential resources that may benefit your client with TBI
- Utilization of a follow-up program to ensure client follow-through with recommendations and to assess for needs for further services

• Ability to network to increase knowledge of potential community resources:

One of the most important skills to possess in working with clients with TBI during the termination phase is how to access information, resources, and other healthcare providers that may be helpful for your client. For many clients with moderate to severe TBI, it is likely that additional and long-term needs may be present. Your ability to seek out information that will lead to additional potential resources for your client will be invaluable. Some of the ways in which you may enhance your networking abilities include:

- Surfing the internet: websites like www.biausa.org and others can be a good source of information on services in your area
- Attend local, state, regional, and national brain injury conferences: these are great places to meet people in the field and find out about services
- Contact local rehabilitation facilities and speak to social workers at those sites: they may have a resource list that you could utilize
- Contact your social work professional associations to find out if there are social workers who might be willing to serve as formal or informal consultants to you



- ## Provide additional support at discharge and implement an extended case management system:

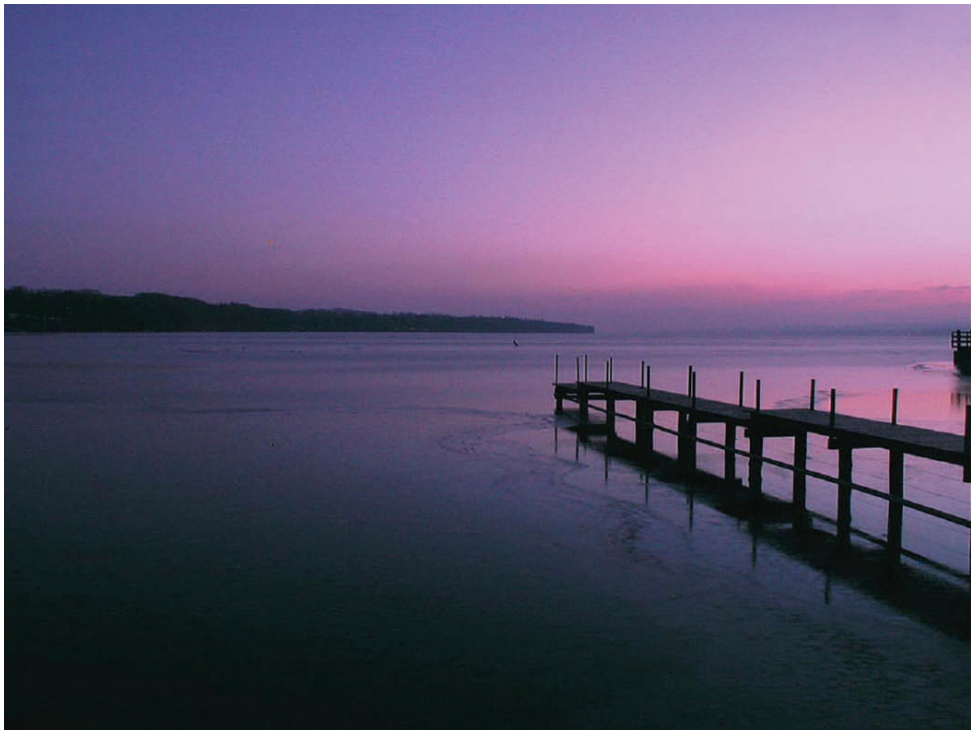
Some clients with TBI may have difficulty following through with potential referrals, because of problems with initiation, organization, or memory. Therefore, it may be important to do as much referral-related work (e.g., making phone calls, setting up appointments, completing paperwork) as possible during termination sessions and/or involve a family member who can assist your client with the referral process.

You may wish to implement an extended case management approach to your practice, if this is feasible for your clinical setting. Oftentimes, persons with TBI may develop additional needs over time after discharge from services. For example, if your client has been successful in a job setting, but the supervisor changes, they may have a more difficult time adjusting to a new person or new approach. This can lead to job difficulties, emotional distress, and so forth. Having regular contact from a healthcare professional (or at least having a healthcare professional that can be contacted) may help either prevent future problems or address them in a timely fashion. You can devise a system that works best for your practice to have regular phone follow-up with your clients with TBI. This can work in two ways for your practice: it can help you collect outcome data to evaluate your intervention effectiveness and it can help in identifying current treatment needs that can be addressed.

Key Points to Remember

- Awareness of information, resources, and other healthcare providers will be of vital assistance in ensuring that your clients have access to supports long after your clinical interaction with them has ended. Referrals to local, state, and national organizations can assist your client with making contacts with other support services that may be needed over time after your services have been completed.

- The use of an extended case management model may be particularly useful for clients with TBI, since many with moderate to severe injuries may experience intermittent need for services over the lifetime. If your practice can be modified to include such services (e.g., follow-up phone calls or "booster" sessions), this may be of tremendous benefit to your clients with TBI.



Appendix I:

Clarification of Issues Regarding Injury Severity:

	Uncomplicated Mild	Complicated Mild	Moderate/Severe
Injury Characteristics			
Duration of Impaired Consciousness	30 minutes or less	30 minutes or less	ranges from over 30 minutes to several days or weeks
Glasgow Coma Scale Score	13 to 15	13 to 15	9 to 12 = 'moderate' 3 to 8 = 'severe'
Imaging	No bruising or bleeding noted on brain scans	Bruising, bleeding, or swelling noted on brain scans	Bruising, bleeding, or swelling noted on brain scans
Duration of Post-Traumatic Amnesia	Generally brief; often lasts several minutes to several hours, but can be longer	Varies; can be relatively brief (e.g., several hours), but can also last several days	Longer duration; may last several days to several weeks or months
Recovery Course	Most improving to near pre-injury levels within first 3 months	Varies	Most rapid recovery within the first year after injury, with more gradual improvements noted from year 1 to year 2 post-injury
Cognitive and behavioral deficits 1 year or more after injury	Generally no	Varies	Residual cognitive and behavioral deficits are common

	Uncomplicated Mild	Complicated Mild	Moderate/Severe
Acute stage of recovery			
Initial Contact	Assess responsiveness and orientation	Assess responsiveness and orientation	Assess responsiveness and orientation; generally, most interactions will be with family if person with injury is in coma or PTA
Problem Identification, Data Collection, and Assessment	If oriented, most information can be obtained from person with injury. It may be helpful to supplement with information obtained from family if available.	If oriented, most information can be obtained from person with injury, but may be helpful to supplement with information obtained from family if available.	Most will be in coma or post-traumatic amnesia in first days/weeks (or months) after injury so will not be able to participate fully in a clinical interaction. Therefore, information will most likely be obtained from family during this time. Family will be an important additional source of information following emergence from PTA.
Case Planning	Feedback from the person with injury will be the primary source of goal development, although family input may also be helpful. Goals should be balanced with current client strengths and limitations, although dynamic nature of such difficulties should be considered.	Feedback from the person with injury will be the primary source of goal development, although family input may also be helpful. Goals should be balanced with current client strengths and limitations, although dynamic nature of such difficulties should be considered.	Feedback from person with injury regarding goals should be used when possible; however, such input should be viewed along with family goals and in light of client strengths and limitations. The dynamic nature of such difficulties should be considered, as should the client's awareness.
Intervention	For most, emphasis will be on setting realistic expectations about recovery, reassurance about normality of symptoms, providing advice about methods of compensating for difficulties, and encouraging gradual resumption of pre-injury activities. Intervention will generally be brief.	For many, emphasis will be on setting realistic expectations about recovery and encouraging gradual resumption of pre-injury activities. In addition, more emphasis on methods of compensating for difficulties will be needed. For many, intervention will be brief; however, depending on symptoms experienced, others may require a greater intensity/ duration of services.	A primary emphasis will be on addressing methods of compensating for difficulties in a functional context. Addressing activities of daily living will often be the primary task. Setting realistic goals and developing a satisfying sense of self after injury often are primary tasks. Intervention will likely be more intensive and longer in duration.

	Uncomplicated Mild	Complicated Mild	Moderate/Severe
Post-Acute stage of recovery			
Initial Contact	Information can be obtained from person with injury; however, inclusion of family members or close others will be important.	Information can be obtained from person with injury; however, inclusion of family members would be helpful.	Assess responsiveness and orientation. Generally, most interactions will be with the person with injury as well as family members.
Problem Identification, Data Collection, and Assessment	Information can be obtained from person with injury. It will be helpful to supplement with information obtained from family or close others to help understand the factors contributing to persisting difficulties.	Information can be obtained from person with injury. It will be helpful to supplement with information obtained from family or close others to help identify persisting areas of difficulty and set goals.	For most clients, Information can be obtained from person with injury. It will be important to also obtain information from family or close others to help identify current strengths, limitations, and goals.
Case Planning	Feedback from the person with injury will be the primary source of goal development, although family input will be important. Utilizing information regarding all factors related to current client strengths and weaknesses will be helpful to identifying goals. A focus on maximizing function should be emphasized.	Feedback from the person with injury will be the primary source of goal development, although family input will be important. Goals should be balanced with current client strengths and limitations, with a focus on maximizing function.	Feedback from person with injury regarding goals should be used when possible; however, such input should be viewed along with family goals and in light of client strengths and limitations. Consideration that some areas of difficulty may be longer-lasting, emphasis should be on compensating for difficulties to achieve client's goals.
Intervention	For those with persisting problems, a focus on developing strategies to compensate for areas of difficulty will be the focus, while continuing to emphasize increasing function despite difficulties. Interventions should be focused on all factors (cognitive, emotional, environmental) that contribute to the current client difficulties. Intensity and duration of intervention will vary according to individual needs.	For those with persisting problems, a focus on developing strategies to compensate for areas of difficulty will be the focus, while continuing to emphasize increasing function despite difficulties. Interventions should be focused on all factors (cognitive, emotional, environmental) that contribute to the current client difficulties. Intensity and duration of intervention will vary according to individual needs.	A primary emphasis will be on addressing methods of compensating for difficulties in a functional context. Interventions should be focused on all factors (cognitive, emotional, environmental) that contribute to the current client difficulties. Setting realistic goals and developing a satisfying sense of self after injury will also be emphasized. For many, this phase will emphasize instrumental ADLs and goals such as returning to work or school. Intervention will likely be more intensive and longer in duration, with greater emphasis on community-based services.

Appendix II:

Sample Resource List

(Houston/Galveston Metropolitan area):

Houston/Galveston Metropolitan area

Information and General Assistance:

Brain Injury Association of Texas.....512-326-1212
800-392-0040 (toll-free)
www.biatx.org

Brain Injury Association of America, Inc.....800-444-6443 (toll-free)
www.biausa.org

Texas Brain Injury Network of Houston.....713-743-5400

Houston Center for Independent Living.....713-974-4621
www.coalitionforbarrierfreeliving.com

Mental Health Association of Greater Houston.....713-522-5161
www.mhahouston.org

Disability Services of the Southwest.....713-728-3033
www.dssw.org

Rehabilitation Research and Training Center on
Community Integration of Persons with Traumatic
Brain Injury.....800-734-8590 (toll-free)
www.tbicommunity.org

Medical Care:

Harris County Hospital District—Gold Card Eligibility.....713-566-6691

Harris County Hospital District—Appointments.....713-526-4243

University of Texas Medical Branch—Galveston.....409-772-1011
800-917-8906 (toll-tree)

Veteran's Administration Medical Center.....713-791-1414

Assistive Technology:

Texas Technology Access Project.....800-828-7839 (toll-free)

Attendant Care:

Sheltering Arms.....713-956-1888

Family Services of Greater Houston.....713-861-4849

Texas Department of Human Services.....713-692-1635

Integrity Homecare Services.....713-827-1249

Driving:

Strowmatt Rehabilitation Services.....713-722-0667

www.driverrehabservices.com

Emotional, Psychological, & Substance Abuse:

Mental Health & Mental Retardation Authority.....713-970-7000

MHMRA Neuropsychiatric Center.....713-970-7070

Family Service Center.....713-861-4849

Houston Area Women's Center.....713-528-2121

Harris County Psychiatric Center.....713-741-5000

The Council on Alcohol & Drugs Houston.....713-942-4100

Education & Employment:

Department of Assistive & Rehabilitative Services.....713-735-3470

Social Security Work Incentives.....800-772-1213 (toll-free)

Texas Work Force Commission.....713-956-4170

Texas Education Agency.....800-252-9668 (toll-free)

Education & Employment (continued):

Imagine Enterprises.....281-474-7887

Career & Recovery Resources.....713-754-7009

Goodwill Industries.....713-692-6221

MHMRA Vocational Services.....713-970-7000

University of Houston Center for Students with Disabilities...713-743-5400

Financial:

Social Security Administration (SSI & SSDI).....800-772-1213 (toll-free)

Medicaid.....800-252-8263 (toll-free)

Medicare Hotline.....800-633-4227 (toll-free)

Crime Victims Assistance.....512-936-1200
800-983-9933 (toll-free)

Texas Workers' Compensation Commission.....800-452-9595 (toll-free)

Texas Health Insurance Risk Pool.....888-398-3927 (toll-free)

Food Stamps.....713-767-2000
800-252-8263 (toll-free)

Houston Food Bank.....713-223-3700

Meals on Wheels.....713-794-9006

Energy Assistance Programs:

Reliant Energy SHARE Program.....713-665-3600

Southwestern Bell Telephone Lifeline &
Link-Up Programs.....800-464-7928 (toll-free)

Sheltering Arms Energy Assistance Programs.....713-956-1888

Transportation:

Public Transit (METRO) - Half Fare for the Disabled.....713-635-4000

Paratransit System (METROLift & Freedom Pass).....713-225-0119

Department of Assistive and Rehabilitative Services.....713-862-5294

Medicaid Transportation for Medical Appointments.....877-633-8747

American Red Cross (Local & Long Distance).....713-526-8300

Leisure & Recreation:

Metropolitan Multiservice Center.....713-284-1973

TIRR Sports.....713-797-5597

Support Groups:

Challenge Brain Injury Support Group
Contact: Lyn Cone.....713-729-5162

Memorial City Rehabilitation Hospital
Contact: Judy Holman.....713-465-8563

Houston Center for Independent Living.....713-974-4621

Healthsouth Rehabilitation—Humble
Contact: Dr. Tom Bisbee.....281-446-6148

The Transitional Learning Center
Contact: Brack Collier.....800-858-4769 (toll-free)

Healthsouth Rehabilitation Hospital
Contact: Barbara Loper.....936-756-6559

West Houston Medical Center
Contact: Kathy Carrico.....281-838-2130

Appendix III:

References

Some of the information in this guide was adapted, with permission of the authors, from the following sources:

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Systematic Approach to Social Work Practice:

RRTC on Community Integration of Persons with Traumatic Brain Injury.

Funded by Grant #: H133B031117, National Institute on Disability and

PHASES	TRAINING & EVALUATION AREAS		
	A: ATTITUDES	B: KNOWLEDGE	C: SKILLS
1. Contact	• Towards cause of injury. • Towards client's motivations for seeking help. • Comfort with acute medical settings. • Comfort level regarding working with clients with physical and cognitive/ behavioral disabilities. • Comfort in working with clients from diverse backgrounds.	• Responsivity. • Injury Severity. • Orientation. • Sensorimotor Functioning. • Primary Language.	• Understanding commonly used scales and terminology. • Assess orientation appropriately. • Apply effective communication, responsive to client's needs. • Explain roles and reason for contact.
2. Problem Identification, Data Collection, & Assessment	• Comfort in asking questions regarding cognitive, behavioral, and physical problems. • Comfort in reviewing medical charts and confidence in ability to find information needed. • Comfort in asking questions of persons in various medical settings, situations. • Comfort with non-traditional families/support systems.	• Common sequelae of injury. • Involvement of family/ support system. • Pre-injury roles/functions. • Client current strengths.	• Use familiarity with typical sequelae to help identify client challenges via chart review and interview. • Identify support system. • Use knowledge of cultural/ educational background in communication with client and family. • Assess awareness of current strengths/ limitations in relation to client and family goal setting.
3. Case Planning	• Comfort in working with both client and support system in process of goal-setting. • Preconceived ideas about recovery or potential of client with TBI. • Client/Family Goals versus Clinician Goals.	• Integration of client/family goals with current functional status. • Recovery course in context of goal-setting. • Knowledge of community, state, and national resources.	• Balance client/family hopes with current functional limitations and point in recovery course. • Apply effective communication skills to approach potential role changes within family and cultural system. • Identify and maintain listing of appropriate resources.

PHASES	TRAINING & EVALUATION AREAS		
	A: ATTITUDES	B: KNOWLEDGE	C: SKILLS
4. Intervention	• Toward persons who may appear "normal" but may be experiencing cognitive/ functional difficulties. • Toward clients who may appear "unmotivated" due to problems with awareness of deficits. • Comfort in working with clients and support system in addressing compliance issues. • Comfort with involving family/support systems in interventions. • Towards modifying established clinical practices to meet the physical, cognitive, emotional, and behavioral needs of clients with TBI.	a. Client Needs: • Impact of awareness on commitment to treatment plan. • Practical compensatory strategies. • Utilization of strengths. • Adjunct resources to address function. • Coping strategies to address adjustment. • Impact of financial resources on access to services. b. Support System Needs: • Impact of caregiving on health and well-being. • Awareness of resources and application processes to gain access to services. c. Service Delivery Needs: • Ways to adapt clinical practice for persons with physical, cognitive, and behavioral limitations to maximize client benefit.	• Balancing provision of supportive environment with development of realistic self-appraisal • Use appropriate strategies to compensate for functional limitations. • Tailor interventions to cultural/ educational needs. • Identify resources for provision of services. • Facilitate use of coping strategies with empirical support and cultural relevance. • Communicate with client and family about financial resource alternatives. • Help support system understand treatment goals. • Provide opportunities to discuss caregiving role. • Communicate effectively regarding strategies for management of caregiver stress. • Facilitate access to and completion of application forms to aid treatment access. • Present information in format that can be understood and facilitates recall. • Communicate with staff regarding needs for flexibility and courtesy for individuals with disabilities.
5. Evaluation	• Beliefs about short- vs. long-term goals. • Towards standard measures vs. clinical judgment.	• Systems of outcome evaluation based on ICF Model. • TBI outcome measures.	• Understanding and applying methods of evaluating both client and program outcomes.
6. Termination	• Comfort with ending therapeutic relationship. • Comfort with referring to other providers with greater expertise/experience.	• Awareness of community resources. • Awareness of other providers. • Extended follow-up.	• Networking to facilitate referrals. • Implementing extended case management where possible.

Systematic Approach to Social Work Practice: Working with Clients with Traumatic Brain Injury

Rehabilitation Research and Training Center on Community Integration of Persons with Traumatic Brain Injury
Brain Injury Research Center at TIRR Memorial Hermann
2323 Shepherd, Suite 907
Houston, Texas 77019

This program is sponsored by a grant from the
National Institute on Disability and Rehabilitation Research,
U.S. Department of Education, for the Rehabilitation Research and Training Center on
Community Integration of Persons with Traumatic Brain Injury (Grant #: H133B031117)
at TIRR Memorial Hermann.