Management of Behavioral Problems during Acute Rehabilitation of Individuals with TBI

By: Tom Novack, PhD

Behavioral problems during acute rehabilitation following traumatic brain injury (TBI) present tremendous challenges to rehabilitation staff. In the presence of behavioral problems, it is difficult for the individual with TBI to participate in therapies and, as a result, their progress may be slowed. There is also appropriate concern for the safety of patients and staff. These problems also create a great deal of concern among family members, which may heighten their anxiety. Dealing with behavioral problems in an efficient and effective manner represents an important rehabilitation goal following TBI.

Types of behavioral problems exhibited by individuals with TBI vary. Some may have difficulty with temper outbursts, while others are socially inappropriate or noncompliant. Some individuals seem to experience no behavioral problems, whereas others exhibit a wide range of such problems. The time of onset of these problems, as well as the duration, are also unpredictable. Restlessness and agitation have been described as phases of recovery. It has yet to be determined if these problems occur at a set time after injury and if there are any variables, which might predict the duration of restlessness and agitation.

All of these problems have one thing in common, however. All are caused by the neurological disruption associated with TBI. It is important to recognize that when people exhibit behavioral problems during acute rehabilitation they are not themselves. It is not the situation or the people around them that generate the temper, noncompliance, or socially inappropriate behavior.

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UAB Department of Physical Medicine & Rehabilitation
Spain Rehabilitation Center

Knowledge of cognitive deficits associated with brain injury, such as confusion, poor memory, and limited reasoning, is important in understanding these behavioral problems.

How can staff members handle behavioral problems?

The first basic rule for staff to understand is that ***managing behavior does not mean controlling another person's life***. You cannot force someone to do something. Each of us is responsible only for ourselves and cannot take responsibility for another person's behaviors or thoughts. Thus, the management goal of the rehabilitation staff in this sense is to manage one's own behavior and not that of other people. ***Staff can create an environment where individuals with TBI will be better able to manage their behavior by managing their own actions and responses.***

Another basic rule involves our goals in dealing with individuals who have behavioral problems. If our aim is to totally do away with negative behaviors exhibited by individuals with TBI, then we will likely be very frustrated. ***A more appropriate goal is to minimize the behavioral problems without the expectation of doing away with them altogether***. Thus, doing something that minimizes the inappropriate behavior is a success, even if there are periodic problems.

This paper discusses ways to manage our own behavior, particularly in relation to specific behavioral problems that might be exhibited by individuals with TBI. In any situation in which there is a behavioral problem, it is important that staff members keep their options open as to how they respond. The best way to accomplish this is to remain calm and not take the behavioral outbursts personally. The individual with TBI may behave in a very offensive manner and direct their comments or actions towards another person. However, it is important that staff distance themselves emotionally from this and recognize that it is a neurological

problem and not a personal issue. When such situations occur, staff must use judgment in how to approach the situation. Appropriate judgment is more likely to occur when one is calm and not reacting emotionally to what is occurring.

Approaching *&* Interacting with the Individual With TBI

Your initial encounter with an individual with TBI can determine the success of your efforts. Therefore, you need to pay attention as to how you present yourself. Keep in mind that these individuals may be confused and reactive; you want to avoid increasing any restlessness or agitation that already exists.

Your contact with a patient with TBI should involve a ***social greeting***, such as "Hi (name), how are you?" A handshake may accompany the greeting. The handshake and greeting are cues to relax. It is important to introduce yourself each time since, due to memory problems, the person may not remember you.

When you talk with patients, ***speak slowly*** so that the slowed cognitive processing often exhibited by TBI patients will not hinder your encounter. You also need to speak briefly and clearly. Be very direct in what you want to communicate. For instance, it is better to say, "I need to take your blood pressure" than, "You wouldn't mind if I took your blood pressure, would you?" For those of us in the South, this requires some discipline since Southern speech patterns are often quite verbal and somewhat flowery.

Many individuals with TBI are confused; it is tempting to correct their confusion by directly disagreeing with what is said. However, this can be detrimental and generate increased agitation. Rather than disagreeing, it is better to direct attention to some other topic or make comments that do not state either agreement or disagreement. For instance, if a patient believes that he has lost an item it is not necessary to tell him it has not been lost. You can assure him that the lost item will turn up shortly.

It is important to always ***explain your intentions*** before beginning an activity with patients. If there is some procedure that must be done with the patient, explain in very brief terms what is going to happen. This can prevent a startle reaction that could lead to agitation.

Also, ***avoid touching or grabbing the patient suddenly***. If touching is to take place, there should be a greeting and some conversation first. Then only use gentle hand pressure on the shoulder or arm. Grabbing and holding firmly should be reserved for situations in which there is obvious danger to the patient and other interventions are not sufficient.

Redirecting the patient's attention to less distressing topics, and even using humor, may be appropriate. It is important that we laugh at ourselves to show that we are not too rigid or formal. The only instance in which humor would not be used is if the patient feels that others are laughing at him. In this case, any attempts at humor should be discontinued.

Although this is not commonly done in our everyday contacts, it is important to ***formally end an interpersonal contact*** with individuals with TBI. They are not always aware of social cues that suggest that someone intends to leave or end a conversation. Therefore, it is important to state your intentions ("I have to leave now (name). There is another patient who needs my attention)." If these general rules of contact are followed, interactions with TBI patients are likely to be smoother and the potential for agitation, restlessness or other behavioral problems, is diminished.

Agitation and Restlessness

It is important to understand that there is a neurological basis for the agitation and restlessness that individuals with TBI individuals may experience. It is difficult for these individuals to stay focused on any particular event/topic or to figure out what to do if a problem arises. This is because of their limited attention span, poor

reasoning, and limited memory. Under such conditions, agitation and restlessness are understandable.

Agitation and restlessness have been described as a stage of recovery following TBI. However, not all head-injured individuals experience such problems and the duration of these behaviors varies. Therefore, it is difficult to predict which patients might experience agitation and restlessness and if it is likely to be for a short duration or a long-term problem. In many cases, it is appropriate to "ride the storm" for at least a few days to determine if the problem will be short-lived and if interventions, such as medication, are necessary. To be able to do this, you must be very patient and well trained in how to manage agitated and restless individuals.

There are several levels of treatment for agitation and restlessness in a rehabilitation setting. First, and likely most important, is **environmental management**. This means trying to minimize stimuli in the environment that might lead to problems with agitation and restlessness. For instance, a great deal of stimulation, such as loud televisions, loud conversations, and numerous people visiting, can increase restlessness among individuals with head-injury. Patients with a neurological disorger are often unable to remain calm in an active environment. To calm the patient, it may be necessary to calm their environment. This may mean placing them in bed, pulling the curtains, and turning off the television. Therapy with patients with TBI often benefits from being held in a quiet area away from the usual PT and OT departments. Seeing patients at bedside for therapies may be recommended in some cases.

Staff behavior is also part of the environment that has to be managed. When approaching an agitated patient, you must speak calmly and slowly without becoming excited. In fact, if you speak in a low volume voice, the automatic tendency of anyone around you is to become still so they can hear what you say. Gentle physical contact, such as rubbing the shoulder, might also be recommended, but only after there has been some verbal interchange so that the physical contact does not create a startle effect.

The second line of treatment is the use of **physical restraints**. The Posey vest is the least restrictive and most acceptable (to both staff and patients). In some situations an enclosure bed may be helpful. This places the patient in a protected environment that minimizes extraneous stimulation. Limb restraints are not necessary in a Vail (enclosure) bed. If this is not sufficient, then wrist restraints and ankle restraints (essentially four-point restraints) can be used. It should be recognized that use of restraints could be a cause for agitation among TBI patients. The only reason for using these measures is if there is significant danger to the patient or others. If the patient can be managed with a less restrictive restraint, such as the Posey vest, it should be the first choice, rather than attempting more extensive physical restraints. Use of any restraint necessitates close observation of the patient. It should be understood that physical restraints carry a risk. It is possible for patients to injure themselves with restraints, such as causing peripheral nerve damage. The use of restraints may also create a hostile feeling between patient and staff that could be difficult to overcome. In an inpatient setting, restraints must be ordered by a physician and the necessity for their use must be reviewed daily.

The third line of treatment is **medication**. Usually sedatives such as Buspara® (busprirone), Ativana® (lorazepam), or (in extreme cases) Risperdala® (risperidone) are prescribed. Propranalol and other beta-blockers have also been used at times, as have antidepressants. Existing practice parameters usually focus on propranolol as a first line of treatment followed by an anti-depressant such as Zolofta® (sertraline). Lorazepam is used as required for "breakthrough" agitation.

While these medications may be effective in reducing restlessness and agitation, there is a cost involved. The patient's mental status is usually affected to some extent. This is not desirable at a time when the neurological trauma has already caused significant cognitive problems. Medication may make it more difficult for individuals to participate in therapies and thus could slow

recovery. At times it may be appropriate to use medications even before physical restraints. For instance, if the goal is to induce sleep at night, it might be better to use a mild sedative rather than restraints that might increase one's agitation level and diminish the chances of sleep.

Noncompliance with Treatment

Noncompliance with treatment, specifically the patient refusing to participate in therapies or activities such as dressing or eating, is a very common problem at rehabilitation centers. If often reflects confusion on the part of the patient, but could also reflect a realistic concern about their discomfort with particular procedures. Noncompliance is a very difficult issue for rehabilitation staff and represents a legal, ethical, and psychological dilemma. From a legal standpoint, patients are admitted to a rehabilitation center on a voluntary basis, even though they may be very confused and actually incompetent to manage their affairs. They have not been committed to the hospital formally, and there has been no guardian appointed. Therefore, the hospitalization is voluntary and individuals can refuse treatment from a legal standpoint. From an ethical standpoint, staff does not want to force someone to engage in activities they do not desire. Rehabilitation staff also knows that if patients with TBI are forced to engage in the activity they will not benefit. The psychological dilemma relates to the inability to read the minds of people or change their minds once set. Since staff cannot force patients to do something, your job, instead, is to create a situation where the individual with head injury willingly participates in treatment, even if their enthusiasm is lacking.

When a patient refuses some activity or treatment ***it is important to determine what is being refused and why, if possible.*** When a person is confused this may be difficult, but it may mean the difference between participation and a significant confrontation. It is not uncommon, for instance, for patients to refuse physical therapy. By questioning the patient, you can determine which activities of physical therapy are acceptable and which are not. Generally, patients do not appreciate stretching exercises that might cause pain. If it can be determined what is being refused (e.g., stretching exercise) and why it is being refused (because of the pain involved), it is possible to change how physical therapy is introduced to minimize those events. Another example is the patient who refuses to dress. Rather than accepting their statement, you can question the patient to see what is being refused and why. The reason the patient is actually refusing to put on a particular piece of clothing is because the color is somehow inappropriate. Situations can often be dealt with easily if you take the time to question the refusal.

There are several other approaches that staff members might use when working with individuals with TBI who are not compliant. Patients with TBI often are easily fatigued and want frequent rest periods. A solution may be to allow for rest periods during therapy or a longer rest period around the lunch hour. This can decrease chances for noncompliance during the day.

Staff may also be able to ***redirect the attention of the patient***. If the person refuses a particular activity, you can suggest an alternate activity. Then at some point in the future they can return to the refused task. This can have surprisingly positive results, in part due to the limited attention span and memory functioning in some individuals. You might also be able to distract the patients with TBI by having the radio on when engaged in tasks or counting during activities, such as when doing stretching exercises. This must be used with caution, however, since the distraction might diminish the person's ability to participate in the task due to attention problems.

Explaining activities to individuals with TBI is extremely important since it tells them what to expect. Patients are more likely to refuse to participate when they do not understand what is happening. One possible solution is for staff to change the order of particular tasks. For instance, if dressing is very difficult for a particular patient, then it could be left until the very end of the morning routine. The other tasks of taking medications and

eating breakfast can be done first. Patients who have progressed cognitively are often sensitive to maintaining control over their situation and may refuse tasks when they think they are being "forced" to do something. ***Providing them with choices*** can help alleviate this perception. You do need to ensure that the choices presented to the patient are acceptable and serve a rehabilitation goal. For instance, allowing some patients to make a choice in the clothing they wear or their therapy activities is often very helpful. In most cases, the choice should be dichotomous (an either/or choice). Remember that giving too many choices can be difficult and cause increased confusion and agitation.

Once an individual has progressed cognitively, staff can use more sophisticated methods to overcome any noncompliance. For instance, ***bargaining might be helpful***. Essentially this means providing reinforcement to the person for engaging in an activity. Any activity that the person finds desirable and chooses over other activities can be used as a reinforcer. For instance, watching television can be used as reinforcement for engaging in particular activities. An example as a bargaining technique would be that you encourage a patient to dress as quickly as possible so that they can then watch the morning news. It may be possible to get the patient to agree to some physical discomfort, such as with stretching exercises, if a desirable activity follows.

Written discharge goals can be a helpful way to provide individuals with a sense of control. The goals should be posted at bedside and provided to all therapists so there will be agreement among all parties (including the patient) as to what the goals are. Finally, a checklist may be helpful to encourage the highest-level patients to complete their activities independently. For example, you can provide them with a checklist of activities to be completed everyday in therapy. The patient would be responsible for carrying through with the tasks.

The impact of the eventual outcome from the patient's participation in therapy should not be underestimated. However, many patients are limited by their neurological disorder, as well as their current environment. Many tasks in which they expected to participate are not meaningful to them Neither is the hospital setting motivating to most people.

Injured individuals want to resume their lives. For an adult, this means returning to work, being with family, driving a car, and engaging in social activities. These activities are out of the question during their hospitalization for acute rehabilitation. Rehabilitation staff must focus on very basic activities, such as balance, dressing, and attention skills. Understandably, people with TBI do not find this motivating. In addition, it is difficult for staff to find reinforcing activities or events for individuals while they participate in acute rehabilitation. As adults, the things we find reinforcing, such as being with friends or family, getting a paycheck, or pursuing social activities, are not available to the patient with TBI during rehabilitation, although often desired. ***The reinforcement that staff often has to give is interpersonal; such as telling someone they have done a good job and providing a smile and reassurance.*** The impact of such comments should not be underestimated and since this is what you have to use, such comments should be used liberally.

Temper Outbursts

People vary in terms of their temperament but it is fair to say that anyone will become angry at some point in their lives. For individuals with head injury, anger and irritability are perhaps more frequent than with the average person. It should be understood that temper outbursts after TBI have a neurological basis. A very common result of TBI is injury to the frontal areas of the brain. Individuals with this type of injury do not have the ability to inhibit emotional and verbal response, as they did prior to their injury. The average person may become angry but is able to suppress the anger or "keep it inside" fairly well. The individual with TBI may not have the ability to inhibit their anger response. In a figurative sense, the gates fly open and emotions comes out. Because it is a neurologically based event, you must be very careful not to take temper outbursts personally, even if it appears to be directed at someone in particular.

Temper outbursts among individuals with TBI are often different than those we experience in our daily lives. Individuals with head injury have been described as having a "quick fuse" in which their temper escalates rapidly and outbursts may occur over relatively minor events. These outbursts may be unpredictable; what makes someone angry today does not have the same effect tomorrow. In the majority of cases there is no violence associated with the outbursts. They are limited to sharp comments, loud verbalizations, and/or changes in facial expression. Often the event is very short in duration, lasting perhaps two to three minutes at most. At the end of the outburst the person returns to normal relatively quickly and does not seem concerned about the event, although they may express a brief apology.

As in other instances in which there are behavioral problems, the most important response by a staff member is to remain calm. This keeps open options for other responses, including physical restraint if necessary. ***If there is an obvious stimulus causing the temper outburst, remove it if at all possible or direct the patient away from the stimulus.*** For instance, if an individual with TBI is extremely angry with a family member it would be appropriate to separate the two. ***When in the midst of a temper outburst, attempting to reason or getting into an argument with the individual with TBI is inadvisable*** and could actually create more difficulties. Many individuals with TBI do not reason effectively and attempting to reason with them at a time when they are very emotional does not make sense. Any discussion of the events leading up to the outburst or how the patient with TBI might have behaved differently should take place after the temper outburst has subsided.

If at all possible, ***it is good to encourage antecedent control***, which simply means trying to "nip it in the bud" before the outburst gets into full swing. As you get to know your patients and how they react, they may be able to tell when a person is becoming more anxious or confused and intervene at the point when a temper outburst might be forthcoming. For instance, if a patient is in a situation where there is a great deal of stimulation and is becoming confused; intervention might prevent a temper outburst a few minutes later. For higher functioning patients it might also be possible to introduce a reinforcement program to diminish temper outbursts. This might involve the staff keeping track of the number of outbursts during the day. Desirable activities, such as family visits, can be arranged if the number of outbursts does not exceed a specified number.

Finally, there are medications that can help in diminishing temper outbursts. However, as mentioned earlier, these medications carry a cost, which usually involves some clouding of mental abilities.

Socially Inappropriate Behavior

Sometimes individuals with a head injury will say rude things and behave in a very insensitive manner toward others. Staff needs to recognize that there is a neurological basis for this problem. This includes the cognitive problems these individuals experience, particularly the difficulties they might have in monitoring themselves and the impact they have on the environment. Do not be personally offended by comments made by an individual with head injury. Your reaction to such behavior (if taken personally) may create more problems for the staff and the patient.

If the behavior is occurring in a social setting, ***it may be beneficial to redirect the individual's attention to another topic or attempt to gently physically withdraw them from the situation. Use of nonverbal cues, such as a time-out signal, may be helpful*** to at least indicate to the person that there is a problem that needs to be addressed. It is important that you ***avoid embarrassing the individual*** with the head injury, such as commenting on the behavior in a negative way in front of others. Even though individuals with head injury are often confused, they are still adults and want to be treated like adults. You need to address socially inappropriate behavior, but it should be done in a very sensitive manner, one on one. Crowds and conversations involving more than one person often increase confusion for individuals with TBI. In

these situations patients are more likely to make inappropriate or tangential comments.

Staff needs to recognize that they are not only rehabilitation specialists, but also teachers. ***It is essential for staff to model appropriate social behavior for patients.*** For instance, you should attempt to be a good listener and not interrupt others frequently. Taking turns in conversation is also important to show that everyone has an opportunity to speak. It is sometimes easy to overlook such basic rules when one is busy and must say something quickly.

You should select relatively easy topics for discussion when talking with individuals with TBI. Select something that will be easy for the person to comment about. For instance, family issues, sports, or the weather would be appropriate topics that are not too complex. Also, your responses should be as brief since longer comments are less likely to be understood by the individual with TBI.

Staff can model appropriate behaviors and ***it might be helpful to use role-playing***. If the individual with TBI has engaged in socially inappropriate behavior it would be helpful to role-play a more appropriate response with them. For example, if a patient makes a sexual comment to a therapist, it would be beneficial for that therapist to discuss with the person more appropriate expressions of appreciation. The therapist could suggest saying "You have been very nice to me today" or "I like the way you've done your hair." It is not helpful for staff to criticize the behavior without giving that person some idea of a better way to respond.

Denial of Disability

It is common that individuals with TBI do not fully recognize the deficits they exhibit. This can extend to cognitive problems, physical problems, or behavioral issues. Once again, the basis for this behavior is neurological, in part. There are areas of the brain that control a person's ability to monitor themselves and the environment. There is also an emotional component in which, understandably, people are not willing to accept significant limitations in their life due to TBI.

Rehabilitation professionals are trained to help people cope with their disability. This means there must be some recognition of what disability exists for a particular patient. ***The staff may assume that individuals with head injury should be able to recognize their deficits and if they do not, it is the responsibility of staff to bring it to their attention.*** Unfortunately, this can result in some very negative confrontations in which a patient denies having a particular problem and the staff member disagrees very directly. ***When this occurs, the response of the injured person is often to become defensive and insist on the intactness of his/her abilities.*** This also undermines the personal relationship between the staff member and patient.

There are some instances in which you must confront denial of disability. If the patient is in danger due to the denial, there must be some intervention. For example, an injured individual who is non-weight bearing thinks he/she can ambulate and tries to do so. They must be confronted directly, but in a sensitive manner. When this does occur, you need to emphasize that the situation may change, such as the person may be able to ambulate in the future. They can indicate why the person is unable to perform the particular task, stating that the person's balance is significantly impaired.

What about when the denial does not result in a significant danger to the person? In this situation, ***one way to deal with the denial is to simply ignore it***. Change the topic and move on to another activity. In most cases, the awareness of deficits will increase with time as a person participates in therapies. This experience will have more impact than simply telling people about their problems. ***An equally acceptable approach is to gently address the inaccurate perception on the part of the individual with the head injury once, but then to avoid arguing over the statement.*** If an individual with a head injury disagrees with you concerning their capability of performing a particular action, there is usually not much benefit to be gained from arguing with them

about it. In most cases, the lack of awareness itself is a sign that reasoning skills are inadequate. It is important that you take care not to embarrass the person in front of others by commenting on deficits in a teasing or demeaning manner.

A little bit of humility may also be helpful in dealing with patients who claim abilities that staff doubt. ***Rehabilitation professionals do not have access to "the truth" anymore than other people.*** Your ability to judge the capabilities of our patients is based on our experience with rehabilitation. There will always be instances in which someone can perform an action that you do not think they could do. This is actually a very positive development. If a person insists they can do something, in some instances it might be appropriate to allow them to attempt the action under supervision. A good example is a person who believes that they can engage in kitchen activities even though therapists may doubt that capability. Eventually, it may be necessary to have the person participate in cooking activities under the supervision of an occupational therapist to prove their capabilities.

Final Words

The most important thing to remember in working with individuals with TBI is to remain calm and be flexible. Do not take it personally when patients exhibit behavioral problems. As teachers we need to model calm and sensitive behavior if we are to help patients and their families as they struggle through a difficult time.

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Additional Resources -

Changes in Emotions following TBI
By: Tom Novack,PhD and Jay Meythaler,JD, MD
Information on how a traumatic brain injury changes the experience and expression of one's emotions and what might be expected. 1999.
[Available online-http://main.uab.edu/show.asp?durki=10167]

TBI Inform - Introduction to Brain Injury: Facts & Stats Issue2, February, 2000
A review of data on traumatic brain injury that includes a discussion on brain injury, measuring the severity, it's pathology, demographics, causes and costs.
[Available online- http://main.uab.edu/show.asp?durki=27492]

TBI Inform - What to Expect after Traumatic Brain Injury and Rehabilitation Issue 3, June 2000.
A review of the cognitive, behavioral and emotional difficulties that one may have following TBI; the role of rehabilitation; outcomes following TBI and rehabilitation services.
[Available online- http://main.uab.edu/show.asp?durki=29430]

About the Author

Tom Novack, PhD is a Professor in the UAB Department of Physical Medicine and Rehabilitation and the Department of Psychology. He also serves as Co-Director of Head Trauma Treatment Team at UAB Spain Rehabilitation Center.
Dr. Novack is Co-director of the UAB Traumatic Brain Injury Care System. His specialty is in neuropsychology and he works with people experiencing brain injury, particularly traumatic brain injury. He assists people with returning to school and work after such injuries. Dr. Novack is recognized nationally for his research exploring recovery from traumatic brain injury.

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UAB-TBIMS Project Director: Thomas Novack, PhD
Editor: Linda Lindsey, MEd
Email: tbi@uab.edu
Visit our web site at www.uab.edu/tbi

UAB-TBI Model System
Dept of Physical Medicine & Rehabilitation 619 19th St South, SRC 529
Birmingham, AL 35249-7330
205-934-3283 or TDD 205-934-4642