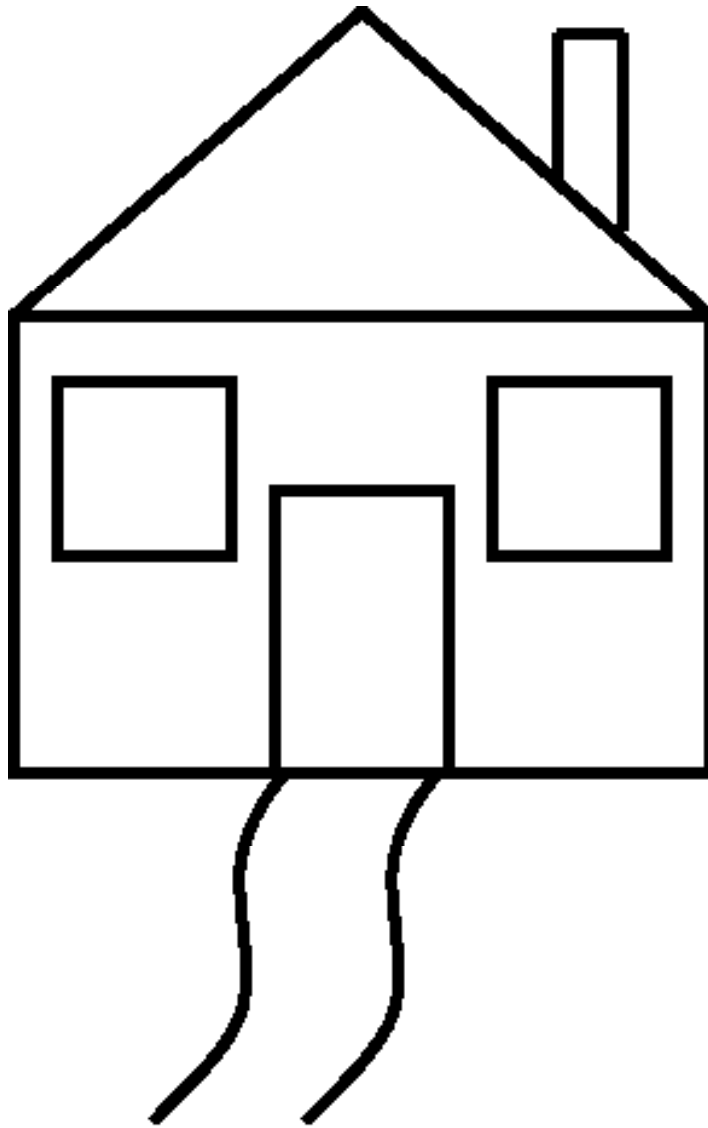


THE BARRIERS, THE ROCKS, THE FRUSTRATION, BUT FINALLY SEEING THE LIGHT

ABI training module VIII

Version: 5/2024

Vocational rehabilitation for people with brain injuries



Instructions to this module:

- Please read and study this module
- Please make sure that you are familiar with the content of this module
- If you have questions we encourage you to talk to either your supervisor; vocational rehab counselor in your area; or you can contact the ABI Program Administrator under (801) 809-5391.

Objectives of this module:

- Describe the major barriers to successful vocational outcomes
 - Learn that specific methods or techniques produce better outcomes within the Vocational Rehabilitation context
 - Identify what methods can be used to aid vocational success
 - Describe where an assessment should start
 - Learn about how a plan development/implementation should be adapted for people with TBI
 - To refer individuals with Brain Injury to the website for Vocational Rehabilitation, using the attached links in this module
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Overview vocational rehabilitation for people with brain injury

In the previous modules of this ABI training manual you have studied and learned about the members of the treatment and rehabilitation team and about the elements and components of neuropsychological assessments. You have further learned about the differences of traumatic brain injury and acquired brain injury; the wide range of cognitive, physical, and behavioral impairments following a brain injury. You have learned that basic sensory and motor functions can be affected as well as the functions of other body systems.

Some individuals who have experienced a brain Injury are highly aware of these effects; others may be surprisingly unaware, despite feedback from others. Also, for any specific person the severity of the injury and the resulting direct effects may in no way predict the amount of disruption in his/her life. This follows because each of us draws differentially on differing parts of our brains. A severe frontal injury may have less impact on an agricultural worker's job performance than a so-called 'mild' frontal injury would have on a physicist's work.

An example will be used here to illustrate several of these points:

Joan, a senior in college, was struck by a car and suffered a head injury. Following a few hours loss of consciousness (LOC) and a two-week hospitalization, she was discharged as "recovered." Returning to college, she found that she had to spend an inordinate amount of time studying to complete her class assignments. After graduation, she attended law school and passed the bar examination. A bright student before injury, afterward Joan succeeded academically by devoting many more hours than most students to studying.

She attributed the need for so much homework to her continuing anxiety following the accident. When she began to work as an attorney, the sequelae of Joan's TBI further manifested themselves, although she did not connect her problems to the injury. She reported that she was having trouble organizing, reading briefs and following conversations; she felt irritable, was hypersensitive to noise and took too much time completing work assignments. She felt her work was too stressful. Her law firm asked her to resign. Joan similarly failed in several subsequent positions with law firms and finally decided to pursue a lower level position outside law while deciding a future course of action.

However, during her interviews for positions below her educational qualifications, she reported that she would argue with interviewers — to justify her application. She eventually found a job that she could handle, as a part-time receptionist in a doctor's office.

Realizing, finally, that something was wrong, Joan sought help. Through a series of referrals, she found a neuropsychologist, who discovered that, although her intellectual abilities were intact and her conceptual skills were excellent, she had "cognitive deficits that included decreased speed of visual information processing, visual scanning and impaired verbal memory. These were not severe, but taken together these deficits significantly impeded her career progress." Based on commonly used criteria, her brain injury was considered "mild," camouflaging significant sequelae. She was now reporting that she was feeling constantly angry and out of control; she was having trouble coping with travel, with crowds and with daily tasks. Cognitive remediation, counseling and vocational rehabilitation were introduced.

While continuing to succeed in her part-time position, she considered this only a short-term plan. It was a dilemma for her to work at a nonprofessional level, which was at odds with her sense of self. This motivated her to explore vocational options. Working with a vocational rehabilitation counselor, she reviewed her areas of interest, and, where additional training was needed, she examined training curricula to decide if they suited her abilities and willingness to commit to course work. She decided, at that point — seven years post-injury — to postpone a career change: to allow her time to receive cognitive remediation and to achieve some successes in a behavioral management program.

Joan continued her remediation over the course of the next two years, but has now stopped. She is still employed in her part-time job, and now has decided to resume her vocational pursuit, with occupational therapy as her chosen profession. She feels she can handle the training, and, if she succeeds, she will find the status and job opportunities she seeks.

This example illustrates points previously made and demonstrates some considerations that are important in vocational rehabilitation of people with TBI:

- Services are likely to be needed over lengthy periods. People with TBI are commonly not quickly 'in and out'.
- The consumer and counselor, in formulating an acceptable plan, need to address pre-injury life style, interests, abilities and goals.
- Typically, starts and stops, not a nonstop progression, will characterize the course of rehabilitation.
- For a variety of reasons, the time frame for achieving specific markers during rehabilitation needs to be kept loose; rigid deadlines are not likely to work to the advantage of the individual with TBI.
- The need of each consumer of VR services to be empowered to make choices that will become his or her customized rehabilitation plan is multiplied in importance for the person with TBI.

How common is brain injury and who is the typical person with brain injury?

The incidence of TBI is high, but just how high is not known, primarily for two reasons:

1. Many head injuries are not included in official statistics, and
2. definitions of TBI and disability vary across the respective groups that track TBI incidence.

Estimates have been made as high as three million injuries a year, with 750,000 persons being hospitalized, 100,000 dying and 90,000 left permanently disabled. However, what is clear from any of the estimates of incidence is that many people with injuries do not enter the health care system, because many such injuries are labeled incorrectly or are ignored. We can understand this if we consider that if LOC does not occur or is very brief, the injured person may never go to a hospital or see a doctor. And, with this type of Brain Injury, called 'minor' Brain Injury, often the injured person does not tie the dysfunctional consequences of TBI to the injury. No one had told them what to expect even if they did get medical attention. Thus, the individual may have all the symptoms of TBI and not know the cause of his or her symptoms.

The typical person with Brain Injury historically has been depicted as a young male, under the age of 24. The ratio of males to females has been estimated at 4:1. These data may adequately describe people with head injuries who have been hospitalized. However, newer data based on interviewing people with head injuries living in the community suggest that the ratio of head injured males to females in this group is closer to 3:2. This may be the case partly because females are more likely to receive blows to the head, for example because of domestic violence, that are not viewed as serious enough to send them to the hospital, but the cumulative effects lead eventually to serious consequences in day-to-day functioning.

The significance of this is that many people have experienced a brain Injury, but they do not necessarily tie problems in living to LOC or Brain Injury. However, where difficulties are found to occur in cognitive, behavioral, affective and social functioning, Brain Injury should be suspected. And, remember that brain injury is not rare, it may never have been diagnosed, it may be very debilitating, but it can be diagnosed and worked with. Also to be kept in mind is that myths about the 'typical' brain-injured person may prevent us from recognizing actual brain injury when we see it in front of us.

What are the major barriers to successful vocational outcome?

For the person with brain injury, four types of barriers to vocational success need to be considered:

- (1) the complexities and characteristics of the injury itself,
- (2) services — not available or inappropriate if available,
- (3) restraints within the community and society, and
- (4) potential loss of benefits associated with vocational placement.

Characteristics of the Injury

Essentially, the challenge for vocational rehabilitation rests with individuals with mild and moderate injuries; those with severe injuries are often unable to pursue a vocational course at all after injury. The complexities of injury can only be briefly outlined here, but the import for the VR counselor is that, with the person with Brain Injury, a 'cookbook' approach will seldom be useful, as it assumes that individuals with Brain Injury are more or less alike. In fact, no two individuals with a brain injury will have had the same history, interests and abilities before injury and will not display the same post-injury deficits or implications for daily living.

For many individuals with moderate brain injury, the brain injury leads to reduced functioning; however, areas of strength and interests also define the person, as does his or her social context. In evaluation, goal setting and treatment, the counselor must creatively attend to these complexities. Artistry, as much as experience, will aid the counselor, as will some of the innovative tools and adaptations described herein.

For the person with a mild injury, deficits may be less than with a moderate injury. However, significant difficulties may arise due to the often lengthy lag between injury and the point when the individual recognizes the injury is the cause of functional problems. Months, sometimes years, go by before the problem is correctly diagnosed and appropriate treatment introduced. By then, a “psychological overlay” may have emerged, as the individual’s difficulties in daily life weave their effects throughout their social and vocational worlds.

Services

People with disabilities rely upon the state-federal VR system to help them become employed. Aspects of this system, along with the lack of other services and programs, may inhibit successful vocational outcomes for people with brain injury. More specifically:

- The VR system is a time-limited service provider that does not meet the long-term needs of many individuals with TBI.
- Large case loads prevent concentrated delivery of services and discourage the pursuit and adoption of innovative approaches to service.
- Counselors are not specifically trained to be ‘experts’ in traumatic brain injury and effective approaches to rehabilitation.
- Delayed referral to VR results in delayed services, but too early a referral may result in a determination of ineligibility for services. Timeliness of referral is fundamental with this disability group.
- Vocational programs adapted to the special needs of people with TBI are rare. Long-term supported employment programs are also absent within many geographic regions.

Community and Society

Within the individual’s immediate and societal worlds, many barriers to successful vocational outcomes exist, for example, inadequate housing, inaccessible transportation and lack of social supports. Within the service system, no coordinated system of care for community reentry exists. The absence of community resource linkages to provide pre- and post- vocational support is also clearly problematic.

Loss of Benefits

Because some benefits will be withdrawn under certain circumstances when the individual with TBI earns money, the risk of losing benefits can inhibit vocational progress. To minimize this disincentive, the individual must evaluate his or her ‘portfolio’ of benefits to determine what will be affected and what protected, and under what circumstances. For example, Social Security Work Incentive Programs, particularly PASS (Plan to Achieve Self Support) and IRWE (Impairment- Related Work Expenses), have the potential to assist people with disabilities secure a variety of necessary supports to obtain and maintain employment (e.g., job coaches, transportation, equipment, work-site modifications, training). Knowledge of these incentives and how to help in applying for them is part of the essential arsenal of VR counselors. What does the record say about this group?

What do we know about the impact of Brain Injury on return to work?

Generally, studies have shown that Brain Injury compromises post-injury employment status on many dimensions: Fewer people work post-injury, and those who do work do so for fewer hours, earn less money and enjoy fewer employee benefits.

How can one tell if an individual with Brain Injury is a good risk for vocational rehabilitation services?

Research cannot tell us who definitely will or will not reach their vocational goals. However, we do know some variables associated with success (but certainly do not guarantee it). For example, many studies have found that those with a more substantial career path or higher employment status pre-injury have a greater likelihood of returning to work after injury. However, a study done by O'Neill and colleagues found the opposite. This inconsistency is probably due to varying subgroups of people with Brain Injury being sampled into respective studies: Because the O'Neill study selected participants solely from those who had contact with a VR agency, they eliminated individuals with TBI who had returned to work post-injury without requiring any formal VR assistance.

Follow-up studies have also shown consistently that severity of injury (based on indicators such as time unconscious or numbers of days hospitalized) and severity of impairment (in terms of mobility, cognitive functioning and behavioral/emotional performance) are inversely related to level of involvement in the labor market. Those 'hardest hit' are least likely to work. One fact that 'softens' this finding is that the amount of time since injury has been found correlated positively with attachment to the labor market;^{2,5} thus, time promotes healing, recovery of psychosocial strengths and consequent return to work — for individuals at all levels of severity.

Two other factors have been consistently shown to be associated with return to work: age and education.

Those who are younger and have more education have a greater likelihood of returning to work post injury. One of the better studies used all of the variables discussed above (e.g., time since injury, education, severity of impairment) in predicting return to work. Administrators may find the formula they developed useful in helping allocate limited resources and services. What must be kept in mind is that data such as these tell us about tendencies within groups of people.

None of this can predict what will happen to any single member of that group. For example, in the O'Neill et al. study although most of those who had been in coma for a long time did not return to work, 12% of these most severely injured people were employed at least part-time at follow-up. Thus, if 100 severely injured people presented themselves as candidates for vocational rehabilitation, and, if all of them were rejected as "too risky," this rejection would be wrong, the data suggest, for 12 members of this group.

How well does the state-federal VR system address the vocational rehabilitation needs of people with TBI?

The study by O'Neill and his colleagues provides some sense of "who" the VR system serves. In looking at VR populations in the New York and Connecticut state agencies over three years (1991 - 1993), this study revealed that people with TBI constitute 1.2% and 3.1% of the average caseload in the respective states. Is this good? The rates of acceptance for people with TBI show that, although they were a small percentage of the caseload, they were accepted at a slightly higher rate than the general population of all applicants for VR services. Thus, for example, in New York, 77% of all VR applicants were accepted for services, while 83% of those with TBI were accepted.

In terms of numbers rehabilitated, VR agencies are succeeding with only a few people with TBI. Thus, 413 individuals with TBI were closed "rehabilitated" in New York over the three years, with 137 "26 closures" in Connecticut. This is a small number, given estimates of the TBI populations in these states. However, the rate of rehabilitation (successful closures vs. all closures) was about the same for individuals with TBI as for all clients. Thus, in New York 57% of individuals with TBI were 26 closures vs. 55% of all clients, while the respective percentages were 44% vs. 40% in Connecticut.

Whether one looks at numbers of people with TBI in the total caseload or numbers rehabilitated, VR agencies in these two states are doing about the same for this disability group as for their total caseloads. Services may not be reaching sufficient numbers, but the data suggest that this is not a matter of discrimination. Instead, it is more likely that insufficient resources within these agencies are at the root of the problem.

When one looks at the impact of VR services on hours worked per week and average earnings, the O'Neill study shows that both of these important indicators increased dramatically for individuals with TBI who were successfully 'closed.' In New York, individuals with TBI who were closed rehabilitated increased their working hours from 3 at referral to 30 at closure. Their earnings increased from \$16 per week to \$174. In Connecticut, hours worked increased from 5 to 30 at closure, with earnings increasing from \$27 to \$201. In looking at the jobs obtained by individuals with TBI in the VR system, O'Neill 5 found that a large portion of the 26 closures were in clerical/sales or service positions, which reflects employment opportunities in the region. Specifically, 44% of consumers with TBI finding jobs in New York went into these two employment categories, with 60% in Connecticut.

Professional/technical/managerial positions also drew large numbers -- 12% of clients with TBI in each state. The study also found that New York State VR counselors more often used sheltered workshops for placements, compared to those in Connecticut (23% vs. 3%). These proportions remained relatively constant over the three years surveyed. However, in both states a trend toward increasing homemaker closures was found.

Again, New York had more of this type of closure (8% vs. 3%), but the percentage was increasing in both states from 1991 to 1993.

What specific methods or techniques produce better outcomes within the VR context?

Studies show that both the VR planning process itself and the mix of services provided to individuals with TBI can affect outcome. For example, the O'Neill study shows that those individuals with TBI who were more aware of steps in the VR process, particularly being aware of the Individualized Written Rehabilitation Plan, were more likely to be employed after discharge. Thus, the quality of the individual's involvement with a state VR agency made a difference to the vocational outcome (participants in this part of the study were 77 individuals with TBI who had applied to or availed themselves of VR services in New York or Connecticut in 1992-1993 and were willing to be interviewed). This underscores the need for consumer empowerment through active participation in the VR process, a service direction strengthened in the 1994 Amendments to the Rehabilitation Act of 1973.

Studies have also raised the question of the services or mix of services that work. In sum, vocational interventions (i.e., supported employment, enhanced vocational placement services) were more successful in helping individuals with TBI return to work than was neuropsychological treatment; the latter may be necessary for some but is likely to be insufficient on its own. Also, in the O'Neill study, those who reported receiving services for productivity while clients of a VR agency were more likely to be engaged in the labor market after being 'closed'.

Optimizing traditional approaches to TBI: within traditional approaches, what can be used to aid vocational success?

Two areas are important to review when considering the unique needs of people with TBI: Assessment and plan development. Clearly, assessment provides the informational springboard for plan development.

What assessment approach is recommended?

In assessing the person with TBI, four principles are critical:

1. The characteristics of the pre-injury person (e.g., strengths, values, accomplishments, family support) are as important to the functioning of the person after injury as are the effects of injury.
2. Information obtained through formal assessment needs to focus primarily on functioning of the individual: What do the test results mean in terms of what the person can or cannot do in daily life?
3. The individual's strengths as well as problems and deficits need to be defined.

4. Characteristics of situations (e.g., the person's home, workplace and neighborhood) affect the individual's functioning and are typically crucial factors that can 'make or break' any attempts to reach vocational goals. These 'truths' about people with TBI lead to the primary recommendations about assessment discussed below.

Where should assessment start?

Assessment begins with the vocational intake interview. The detailed information gathering essential to plan development requires one or more sessions with the injured person and family members. This process provides an opportunity to begin establishing rapport with the injured individual and those who play key roles in his or her life.

As people with TBI do remember 'who they were' pre-injury, information about their life before injury is as important as knowing their current status. Probing questions covering the following aspects of the individual, both pre-injury and post-injury, will provide the beginning of an information base upon which plan development will rest:

- Cultural background
- Personality
- Interests
- Vocational status
- Awareness of the effects of injury
- Emotional strengths/problems
- Behavioral strengths/problems
- Expectations
- Alcohol/drug use

Family members provide information complementing that obtained from the individual with TBI. In interviewing family members, the following topics are important to cover:

- Family constellation and supports
- Family roles altered post-injury
- Family understanding of the sequelae
- Family perspective on issues that arise in vocational planning
- Family expectations for the injured person, both pre- and post-injury

How does neuropsychological assessment fit into vocational rehabilitation?

The neuropsychological assessment serves as a key building block in developing a plan for an individual with TBI. It provides information regarding the person's abilities in the following areas:

- Sensory and motor function
- Language
- Memory and learning
- Speed of thinking

- Perception
- Planning and organization
- Attention and concentration
- General intellectual functioning

The neuropsychologist analyzes performance and function based on actual tasks performed and reports the cognitive, meta-cognitive and behavioral patterns observed. In this analysis, the neuropsychologist avoids a focus on summed scores, such as intelligence and memory quotients, but instead emphasizes function. The neuropsychologist also provides descriptions of the individual's behavioral characteristics, insight and adjustment.

Besides administering standardized tests, the neuropsychologist gathers information on the individual's background and interviews the person and family to learn how each views the current situation and their goals/hopes for the future. This knowledge is essential in building a vocational plan that will motivate the person with TBI and enlist adequate family support. Ideally the assessment should take place over more than one session, to allow observations at different times of day and on different days. Multiple observations expose characteristic changes in fatigue and mood; they also suggest implications about the individual's application of strategies to cope with cognitive or other difficulties, outside the structured testing environment.

The vocational counselor must play a key role in insuring that the neuropsychological assessment process provides information that is relevant. In seeking such an assessment, the counselor should not assume that the psychologist will provide a report that 'fits the bill.' All too often such reports focus on documentation of what has been lost or retained, but without tying this to daily life functioning.

The vocational counselor cannot assume a reactive stance, but must actively pose a series of vocationally relevant questions for the neuropsychologist to address within the assessment. For example, the following questions might be explicitly posed:

- How well does the person learn and remember?
- Under what circumstances is information best learned?
- How well does the person concentrate?
- Is performance maintained consistently? If not, what factors seem to affect performance?
- Are environmental modifications recommended to compensate for sensory or motor losses or for cognitive or affective problems?
- Is it likely that this person will form cooperative working and social relationships? Communicate effectively? Accurately perceive the intentions of others? Manage behavior?
- Will modifications be needed in work/ study schedules to alleviate fatigue?
- Is the person able to carry out strategies?
- Does the person accurately monitor his or her performance? Does she or he spontaneously use compensatory strategies?

As often as needed, the neuropsychologist and counselor should consult each other about compensatory strategies, problem solving and supports.

How does situational assessment fit into the picture?

A situational assessment is one in which the person being assessed is placed within a work setting to evaluate his or her ability to carry out a job in which he or she has expressed interest. For example, if one is trying to assess the individual's ability to wait tables or to be a bank teller, a situational assessment would evaluate the person's comprehensive performance in an appropriate setting.

The traditional approach to assessment measures aptitude and achievement but, being removed from real life situations, does not evaluate the ability to apply skills in real work situations.

Traditional approaches are lacking in the potential for measuring behavioral and cognitive abilities, self-awareness, capacity for adapting to novel situations and the generalizability of skills. On the other hand, situational assessments are preferred for individuals with TBI because they occur in actual worksettings and allow more accurate observation of many traits especially important to successful vocational outcomes:

- Ability to perform job-related tasks
- Consistency in carry-over and follow through
- Interpersonal skills
- Response to supervision
- Impulsivity/distractibility
- Irritability and its etiology
- Efficacy of strategies and interventions introduced to help with functional performance and/or to alleviate problems
- Environmental issues, e.g., noise levels, density of staffing in the work area.

As with all assessments, the emphasis in situational assessments should be placed on the individual's strengths, abilities and problem-solving skills. A well-formulated assessment will generate a meaningful 'by-product,' i.e., the chances are optimized for the individual to experience success, more self awareness and even the enhancement of self-confidence, while coping positively with a series of situational assessment experiences.

Such assessment should be made as relevant as possible for the individual with TBI, in terms of work setting, tasks tested and the general environment. Usually more than one assessment is necessary to achieve a comprehensive evaluation. As an ongoing process, situational assessments can be used to monitor the continuing effectiveness of strategies and the emergence of new problems, and also encourage proactive problem solving.

How should plan development/implementation be adapted for people with TBI? Three ideas are key:

1. empowerment,
2. inclusion and
3. redefinition.

By "empowerment" we mean that the individual with TBI gains more by using, and being encouraged to use, his or her power — to choose, to act and to set goals. For example, TBI survivors sometimes have a mind-set that, from the counselor's point of view, impedes the process of vocational rehabilitation and turns what should be a cooperative partnership between counselor and consumer into an adversarial relationship. This consumer views his or her post-injury world as not being very different from that prior to injury: "My

functioning will soon go back to what it was like before, and few, if any, problems will occur upon return to work.” These beliefs may suggest to the counselor an inability to perceive the present situation clearly and may lead the person with the brain injury to resist suggestions from the counselor who challenges them.

Counselors are advised in this situation to acknowledge what the individual is experiencing and give the person power to pursue a goal, even one that the counselor may feel is unrealistic. Yielding the right to veto what seems out-of-bounds, the counselor will encourage the growth of the individual. Choice and empowerment allow movement forward and encourage the consumer to develop new self-perceptions based on post-injury realities.

Inclusion refers here to the family, whose support is crucially important for the vocational rehabilitation success of their family member achieving it and maintaining it. Therefore, the counselor should make sure not only that the family understands the whole process, but also concurs with the individual rehabilitation plan to be carried out.

Most important in encouraging their sustained involvement is keeping the family informed, in both face-to-face meetings and in writing. The counselor should provide regular updates on progress and problems via conferences that include the consumer, family members, the counselor and others essential to plan implementation. Further, when written reports are shared with the consumer and family members, they are better able to absorb information, which they can review at their leisure.

Such information also provides a written ‘history’ of the consumer’s progress. Having said this, we should also add that, at times, counselors may experience family involvement as intrusive. Nevertheless, it is essential for the counselor and other team members to understand and acknowledge the stress on the family. Regular communication, explanation and negotiation are essential to the process and encourage the family to play strong and positive roles in the consumer’s attempts to seek a meaningful vocational role.

Redefinition refers to the need to modify expectations. For example, redefining expectations regarding rates of progress and time frames for reaching goals is responsive to the decreased level of tolerance, fatigue and inconsistent pacing found in many individuals with TBI. For many people with TBI, “progress” must be redefined so that smaller increments are integrated into the measurement scheme, which allows positive reinforcements to be given more often. This redefinition of “gain” allows the person with TBI a positive experience as she or he continues to progress. Similarly, we may need to redefine time frames in several ways. For example, in plan development, many consumers may require shorter planning sessions over longer periods of time. These redefinitions, in sum, are reasonable adaptations, to encourage the consumer’s involvement in planning and to optimize the positive experiences of plan implementation.

Vocational rehabilitation for people with brain injuries in the state of Utah

For specific information on Vocational Rehabilitation in the State of Utah, [please click here.](#) This will connect you to the website of the Utah State Office of Rehabilitation (USOR).

To connect to the Utah State Board of Education, [Please click here.](#)
