Critical Variables in the Provision of Vocational Rehabilitation Services to Traumatically Brain-Injured Adults: A Vocational Counselors Checklist

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Vocational Rehabilitation of the head injured has been very difficult due to the elusive nature of the disability. It encompasses all aspects of the client's lifestyle and the person's ability to function in society. In this presentation we would like to discuss some of the specific factors that effect successful head injury vocational rehabilitation. It is our purpose to increase awareness of certain areas to be monitored and treated by the rehabilitation counselor, the work evaluator, physicians, and supportive professionals. These problems will be approached from an interdisciplinary perspective. Participants will be provided with a checklist detailing the critical variables in providing treatment to head-injured adults.

The Centre for Neuro Skills Program focuses on the rehabilitation of traumatically brain-injured adults. The program itself consists of an interdisciplinary team involving a variety of rehabilitation professionals. At CNS, the therapies are designed to provide an all encompassing individual rehabilitation plan for the clients.

Upon initial intake and admission of the client, the program focus is mainly directed toward post-acute rehabilitation. At later stages in the client's rehabilitation process, vocational rehabilitation issues become critical for the transition of the client into the community. With this transition, several factors pertinent to the head-injured adult are critical for successful vocational rehabilitation. The vocational rehabilitation consultant must utilize information obtained from the various therapeutic disciplines and it is critical that the vocational rehabilitation consultant and service providers be aware of the certain areas to be monitored and intervention techniques to be utilized.

At the Centre for Neuro Skills, the disciplines represented are: a) physical therapy, b) occupational therapy, c) speech pathology, d) educational training, e) psychosocial counseling, f) nursing, and g) vocational rehabilitation. The vocational counselor should be, at least, somewhat familiar with each of the discipline's areas of professional expertise and should be able to relate the crucial information from these disciplines to the client's vocational rehabilitation plan. Vital information can be obtained from all therapies. For example, in physical therapy, this includes information on endurance, coordination, balance, conditioning, gait disturbance, ambulation, proprioception, range of motion, strengthening, orthopedic surgery/contractures, range of motion, orthopedic surgery/contractures, pain management, tactile defensiveness, neuromuscular re-education, head control, trunk control, etc. Information obtained from Occupational Therapy includes: range of motion, proprioception, strength, neuromuscular re-education, dexterity, perception, dressing, hygiene, balance, ADLs, leisure skills, etc. Speech Pathology can provide information concerning: language, speech intelligibility, voice production, apraxia, vital capacity, cognition, feeding, etc. Psychology/Counseling can provide information regarding: psychometric testing, adjustment to disability, sexuality, relaxation, desensitization, family issues, premorbid coping strategies, post-injury coping strategies, behavior program input, etc. Educational training can provide information on the client's abilities in: mathematics, spelling, reading, writing, money handling/management, cognition, pre-vocational academic levels, leisure skills, etc.

Nursing can provide information directly related to medical issues. They also have constant contact with physicians who can provide excellent information as to the client's medical status.

With the above stated information from the various disciplines, vocational rehabilitation has a strong foundation of data to support the client in return to work situations. After obtaining information that can be utilized, the Vocational Counselor's next task is to define specific areas related to the traumatically brain-injured client that

will affect successful vocational rehabilitation. At CNS, the vocational counselor refers the client to a work evaluation, if appropriate. The work evaluation should address critical issues specific to the deficit areas of the head-injured individual, in addition to general work evaluation information.

At the Centre for Neuro Skills, we have developed a vocational counselor's checklist that can be utilized to help in assisting and asking specific questions.

In order to facilitate the asking of proper questions, both the vocational counselor, the work evaluators, and other service providers must have a common understanding of the terminology typically used across several disciplines. Provided below is a list of definitions that can be utilized in conjunction with the Centre for neuro Skills head injury vocational evaluation critical variable checklist.

I. COGNITION FACTORS

A. Memory: ...is not a single factor but one that relates to learning and perception. Attending and perceiving something will lead to remembering. Memory is essentially perception that has been stored at an earlier time and then can be recalled. Memory exists across all sensory modalities or can be modality.

B. Attention to Task: "The active selection of certain stimuli or certain aspects of experience, with consequent inhibition of all others." (Miller, 1962, p. 346) ..Clients with head injury may be unable to distinguish those stimuli that are pertinent to successful performance. The head injured often not only loses the ability to filter out distraction but also, the ability to concentrate on a task for periods of time.

C. Concentration: Concentration is an individual's capacity to continue mental manipulations (thought processes) without interception by competing environmental stimuli. Concentration refers to thought processes as persistence relates to physical tasks.

D. Distractability: Distractability refers to an attentional deficit characterized by an inability to maintain concentration/attention on a given object, experience or event.

E. Cognition: Includes the processes of knowing and understanding, awareness, judgment and decision making.

F. Cognitive Shift: The ability to use multiple cognitive processes simultaneously (e.g., cognitive distance feature identification) and shift between these processes as required.

G. Perseveration: The tendency to continue an activity once it has been started, and to be unable to modify or stop the activity even though it is acknowledged to have become inappropriate.

H. Initiation: The ability to start a task: Impaired initiation may appear as decreased spontaneity, decreased productivity, slowness of response, or lost initiative. The person with initiation problems may be able to plan, organize, and carry out complex tasks, but only when instructed to do so.

I. Impulsivity: Impulsive pertains to the tendency to act out desires without reflecting or recognizing their consequences.

J. Organizational Skills: The head-injured person can display decreased intellectual functioning and these impairments can be manifested in the inability to sequence tasks which result in lowered organizational skills.

K. Concrete/Abstract use of Information: The loss of abstraction can be seen as the inability both to grasp and to retain new information. Old memories are operative in these persons, but new learning fails to be registered with clarity and tends not to be recalled, even in its simplest form.

L. Aphasia: Defect or loss of the power of expression by speech, writing, or signs, or of comprehending spoken or written language, due to injury, or disease of the brain centers.

M. Anomia: The inability to remember and express names (nouns) of persons and objects.

II. PSYCHOSOCIAL/EMOTIONAL FACTORS

A. Acceptance of Disability: The onset of loss of any physical function involves not only the painful distortion of body image of oneself's physical being, but also the image of self as a social being whose family and social roles and vocational and leisure occupations may be unalterably changed. Independence, self-sufficiency, and autonomy may have been given up partially or totally, temporarily or permanently.

B. Social Skills: The individual's decrease in their own regard as whole persons can alter appropriate social interactions. Also, the individual's capabilities, problems, interests, experiences, needs, fears, prejudices, beliefs, cultural influences, and reactions important in relationships to others can be impaired due to inabilities in cognitive awareness.

C. Communications: The ability to transmit and exchange information and opinions.

D. Emotional Lability: Unstable feelings, emotions, and moods, characterized by rapid shifts from one extreme to the other.

E. Flat Affect: Impassive, generalized psychomotor inactivity, or slowed or dragged out speech, and ever present air of fatigue and exhaustion.

F. Aggression (Verbal or Physical): Acting out verbally and/or physically against self or others. Many times due to confusion or inability to effectively deal with frustration, or proper control of impulsivity.

G. Cooperation vs. Isolation: A person's ability to motivate himself or others. Also, client's ability to work independently vs. with groups effectively.

III. PHYSICAL DISABILITIES

A. Decreased Visual Scanning: The inability to properly scan for visual stimuli in the environment.

B. Visual Attention: Voluntary act of visual fixation; focused glaze.

C. Decreased Visual Perception: Difficulty with identification, organization and interpretation of visual sensory data.

D. Tactile Loss-Agnosia: The inability to recognize objects or forms by touch, although touch sensations may be still intact.

E. Auditory Agnosia: The inability to recognize differences in sounds.

F. Decreased Auditory Reception: Difficulty with understanding auditorially to relate concepts presented orally.

F. Decreased Balance: The inability to maintain a state of equilibrium.

Once a common understanding of the above stated definitions can be agreed upon, the counselor can now utilize the checklist in a functional manner. With this checklist, the counselor must consider: medical restrictions/limitations, medications/purpose/side effects, medical history, drug abuse and vocational history. The actual checklist is divided into three categories, which include: 1) cognitive processing, 2) psychosocial/emotional factors, 3) physical disabilities.

After considering these factors, the counselor must focus on:

I. Cognitive Processing Questions:

1. With delay, can the client remember tasks performed for 15 minutes, 30 minutes, 1 hour, 4 hours, or 8 hours?
2. Can the client remember and follow directions? Can the client follow 1 step directions, 2 step directions, 3 step directions, 4 step directions, or 5 step directions? Is verbal, written, visual, or tactile cuing necessary?
3. Can the client shift cognitively from one task to another and return to concentrate? Can the client shift from one task to 2 tasks, 3 tasks, and 4 tasks?
4. How long can a client stay on one task when timed? - 15 minutes, 30 minutes, 1 hour, 1-1/2 hours, 2 hours, 2-1/2 hours, or 3 hours? Is the client productive or non-productive?
5. If distracted, how long does it take for a client to return to task? - 5 seconds, 15 seconds, 30 seconds, 1 minute, 3 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour, 2 hours, etc.
6. If given the opportunity, does the client take initiation? Is there cuing necessary? - verbal, written, visual, or tactile.
   a. Will the client develop and create his own task within the context of the job?
   b. Will the client ask for supervision when appropriate?
   c. Will the client ask for feedback from co-workers appropriately? Does the client ask occasionally/consistently? At inappropriate times?
   d. Can the client initiate without cuing?
   e. If the client does not initiate, will he participate when told to perform?
   f. Does the client continue not to initiate despite cuing or prompting?
7. How impulsive is the client? What control methods are necessary? What is the frequency of impulsive acts in - 15 minutes, 30 minutes, 1 hour, 2 hours, 3 hours, 4 hours, 8 hours?
8. At what level of cognitive functioning is the client performing? Can the client accept abstract feedback? Do the co-workers/supervisors have to express themselves in concrete terms?
9. Can the client express himself? What is the most effective means of communication?
10. What stimulus does it take to distract the client?
    e.g. Environmental distraction
    1. Sound: slightly audible, normally audible/conversation, loud audible, or yelling.
    2. Visual: movement, light intensity, number of seen objects, and size of distraction.
    3. Tactile: light touch, temperature of the room, physical furniture or equipment utilized, etc.

II. PSYCHOSOCIAL/EMOTIONAL FACTORS

1. Does the client accept his disability from a practical functional standpoint? When given work tasks that confront his inability to perform, how does the client react? (NOTE: With head injury the client may verbally state and acknowledge his disability, but may not understand the actual limitations imposed by it.)
2. What were the social skills of the client premorbidly as compared to the client's current level of functioning? How does the client relate to people? a) acquaintances, b) friends, c) family, d) co-workers, e) supervisors, f) groups containing the above mentioned individuals and subgroups. Are the client's role playing skills intact? Does the client still have a strong work ethic?
3. How effectively does the client communicate his ideas and needs to others? Is there aphasia or anomia present? How accurately does the client receive and process information? Is there any distortion of information?
4. How does the client control his emotions? Is emotional lability present? Does the client have flat affect? Is there verbal aggresion toward self, toward others, toward objects? Is there physical aggression - toward self, toward others, toward objects?
5. Does the client work well with others or does the client prefer to work alone? Why? (i.e., is there overstimulation or not enough stimulation) What was the client's premorbid preference?

III. PHYSICAL DISABILITIES

1. What are the premorbid disabilities, if any, affecting the client?
2. Did the injury worsen any disability the client may have had premorbidly?
3. Are there any visual problems? i.e., visual field cuts, loss of acuity, depth perception, far sightedness, near sightedness, etc. (Check with neuro-ophthalmologist for information).
4. Has the client's sense of smell been affected by the head injury?
5. Is there any mechanical and/or neurological auditory loss? Tinnitus? (Check with appropriate physicians for information.)
6. Is there any limited range of motion, gross/fine motor coordination, strength and endurance loss? (Check with occupational therapist and/or physical therapist if information is available.) Is there tactile loss? Balance problems? Stereognosis problems?
7. Does the client have headaches? If so, has neurologist been seen? Are they stress related? Medication related?

As discussed above, it is felt by these presenters that the head injury vocational evaluation critical variable checklist is a tool that can be utilized by the rehabilitation professional in assisting the client in a vocational rehabilitation plan. The checklist is not meant to be a total encompassing evaluation tool, but more as an outline for the counselor in addressing specific problematic areas in working with the

head injured population. Hopefully, this presentation will stimulate and provide the vocational counselor with another assessment device to assist in the total rehabilitation of the traumatically brain-injured and may be utilized as part of the counselor's entire rehabilitation strategy.

REFERENCES

Millon & Millon. Abnormal Behavior and Personality. Saunders, (1974).

Siev, Freishtat, Zoltan. Perceptual and Cognitive Dysfunction in the Adult Stroke Patient. (1986)

Williams, Lorraine. Occupational Therapy, Practice Skills for Physical Dysfunction. Second Edition (1985).

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