

Tbi case study

Business



The purpose of this paper is to describe the procedures, evaluations, assessments, and results used to determine Mary's level of TAB and performed estimation, to describe the effects of Mary's TAB on her daily life, and to determine and explain the services and interventions that will be developed and implemented to aid Mary in adjusting to her newly altered life.

Thesis Statement Although Mary has physically recovered fully from her TAB, cognitive and psychological deficits that disrupt her daily life will require Mary to receive special education services, rehabilitation, and therapy for the remainder of her high school academic life. **Introduction** A traumatic brain injury (TAB) is an injury to the brain that results from a head trauma that causes brain damage. A TAB is caused by a bump or blow to the head, or a penetrating head injury that interrupts the normal functions of the brain. A TAB can be mild, moderate, or severe, depending on the degree of the damage to the brain.

A person suffering from a mild brain injury may express loss of consciousness for a few minutes, headaches, confusion, lightheadedness, dizziness, vision impairments, behavioral/emotional changes, lethargy, loss of memory, lack of focus, or thinking.

A person suffering from a moderate or severe brain injury will display the same symptoms as mild TAB patients on an elevated level of degree, and may also have severe and lingering headaches, vomiting or nausea, seizures, comatose states, speech impairments, loss of coordination, or

agitation (Northeastern University, 2010; National Institute of Neurological Disorders and Strokes, 2013).

Healthcare providers use several different types of tests that assess the severity of a TAB patient's Injuries they have sustained. These examinations assess physical Injuries, brain/ nerve functioning, and level of awareness. A TAB patient's level of consciousness and neurological functioning are assessed using the neurological examination, Glasgow Coma Scale, a 15-point standardized assessment that measures three areas (eye opening, verbal response, and motor response) determine the severity of a patient's brain damage.

The results of the three tests are summed to determine a patient's overall state (National Institute of Neurological Disorders and Strokes, 2013).

Imaging sets, such as MR.

, CT, PET, are also used to determine the prognosis of a TAB patient. The Initial test conducted on a TAB patient when s/he arrives to the hospital is a PET scan. A PET scan is used to search for injuries of the brain, as well as, show the current functioning of the brain and its tissues (Medicine Plus, 2011). The MR. is used to detect changes in brain tissue and show more detailed images than CT scans and X-rays.

They are normally not conducted until after the Initial assessment and treatment of a TAB patient. CT scans show bone fractures and any presences of mortgagee, hemostat, contusions, swollen brain tissue, or tumors (National 1 OFF PTA (postgraduates Amnesia) or after three or more weeks of post-injury, a referral for a neurophysiology evaluation is requested to <https://assignbuster.com/tbi-case-study/>

determine the extent of any cognitive deficits that resulted from brain damage. This information is beneficial in tracking recovery, and guiding treatment and compensatory strategies.

In conducting an evaluation of a TAB patient, a variety of psychometric tests, such as the HRS that determines cerebral impairment or the assessments that measure cognitive deficits eke, the “-III, NAIRA, MART, WISE-III, and the MAR. Background Mary is a 17-year-old female Latin who is a Junior at George Washington High School in Houston, Texas.

Prior to her TAB, Mary enjoyed spending time with her friends and was very popular at school. She also was an academic scholar who performed in the top quarter of her class. Mary sustained a TAB from a second floor diving accident at a weekend party with friends.

She took a sharp blow to her head on the side of the pool and was pulled out of the water unconscious. She was also bleeding from the head where trauma occurred.

Mary was rushed to the hospital ERE ND Pet scans were performed. The PET scan results showed contusion and hemorrhaging in the frontal lobe tissues of the brain. After 3 hours in ‘ CUE, Mary awoke moaning incoherently and moving restlessly in pain. Mary was examined by a neurologist, and responded to strongly to verbal commands and tactile stimuli. However, Marry level of consciousness improved overnight.

After remaining several days in the hospital, Mary was released to go home with her parents and a neurological follow-up was scheduled for a week later.

At the one-week neurological follow-up, Mary was cleared to continue to recover at home. Two weeks later, Mary returned to school to resume her normal school activities. However, Mary started to experience psychological and cognitive deficits in lethargy, concentration, memory, and thought process. She became depressed about her lack of academic performance at school and went into a state of isolation from her friends and family.

Glasgow Coma Scale Results According to the National Institute of Neurological Disorders and Strokes (2013), the Glasgow Coma Scale, a three-measure assessment, is given to a TAB patient's level of consciousness and neurological functioning using the Glasgow Coma Scale.

This scale is used to determine the severity of patient's brain injury. Once each measure's score is determined, the scores of each measure of the GAS are added up to determine the severity of a patient's brain injury.

Once each measurement is scored, the results are totaled to determine the patient's overall condition. A total score of 3 to 8 indicates a severe TAB, a total score of 9 to 12 indicates a moderate TAB, and a total score of 13 to 15 indicates mild TAB. After three hours in ICC, the neurologist administered the Glasgow Coma Scale for to Mary. On the assessment, Mary received a score of 3 on the eye opening measurement, a score of 1 on the best verbal response measurement, and a score of 5 on the best motor response measurement.

She received a total overall score of 9 on the GAS which indicates that she suffers from a moderate TAB. The following day, Mary was administer the GAS for a second time and scored a 4 on the eye opening measurement, a 3

<https://assignbuster.com/tbi-case-study/>

on the verbal response measurement, and a 5 on the motor response. She received a total overall score of 12 which indicates that she still suffers from a moderate TAB. The symptoms displayed, are also signs of a moderate TAB. Pre-Morbid and Post-lonely Levels of Intellectual Functioning In evaluating Mary, I used a variety of psychometric tests and methods.

To estimate Mary pre-morbid functioning, I used historical data that reflected her past academic performance from her school records, Mary post-injury test performance, and demographic information. I collected information about Mary educational achievements, social behavior, medical history, and psychological history through interviews with Mary, her teachers, and family members. This information provided me with a view of how Mary TAB has effected her life. I used Mary school transcripts and state standardized assessment results to determine her capabilities prior to her TAB.

According to the data I collected, Mary was an academic scholar with a GAP of 3. 4.

Her best subjects are Language Arts and History. She was very athletic and was a member of the high school cheerleaders squad. Mary was very popular among her peers and enjoyed going to social events with her friends. She was very active in her church and a member of the church choir. Her parents stated that Mary was very dependable and responsible, and babysat the neighbors' children every Monday and Wednesday.

Based on Carroll and Watt (1999), neurological tests are designed to give exact information about the level of cognitive functioning at a given point of <https://assignbuster.com/tbi-case-study/>

time and the results must be differentiated with the estimated level of functioning before the injury.

The difference between the current and pre-morbid estimates of functioning is important because it offers evidence of the degree of depreciation with an independently controlled pre-injury norm. I administered the WHAT to Mary to assess her performance ' Q. The WHAT is conjunction with the WAIS-III.

The WHAT is a list of words that are presented to the patient to read aloud. The assessment is not timed and the dependent variable is the number of words read correctly (Bradbury, Christensen, Green, Melon, Monet, & Mongo, 2008).

“ Interpretation of performance is based on the idea that prior, life-long exposure to a word, even without knowledge of the meaning per SE, is a reflection of performed verbal intellectual functioning” (Grandee, Leerier, Lundeberg, Negligence, & Millers, 2008). The results of the performed IQ were compared to a peer normative group.

After collecting, examining, and comparing data from Mary's school records, interviews, and performance ' Q, significant changes in Mary's intellectual ability have occurred and she displays signs of acute aphasia disorder. These deficits are contributing to the problems Mary is facing at school. A few weeks later, Mary was administered the WAS-IV to determine her post-injury intellectual ability.

The WAIS- IV consists of 10 core subtest and 5 supplemental subtest. The test provides 4 major scores in verbal comprehension, perceptual reasoning, working memory, and processing speed and 2 overall scores.

This test is used to assess the current intellectual abilities in brain-damaged individuals. WAS-IV measures fluid reasoning, visual processing, and short-term memory (Benson, Hula, & Crankier, 2010). The results are then compared to a peer normative group. Based on the comparison of Marry pre-injury and post-injury assessments, she has made some improvements, but still displays some deficits in the ability to access information from long-term Cognitive Speed In determining Marry cognitive speed, the neurological assessments, Trail A and B, Digit Symbol, and the PASTA, were used.

The Trail A and B tests are very simple. In Test A, the examine draws lines to connect circled numbers in numerical order as sat as possible. In Test B, the examine draws lines to connect circled letters and numbers in an altering alphabetical and numerical pattern as fast as possible. This test is used by neurologists to assess attention, visual search and scanning, sequencing and shifting, psychometric speed, abstraction, flexibility, execution and modification abilities, ability to maintain two trains of thoughts simultaneously (statehouse, 2011).

The Digit Symbol test is used to focuses on the ability to perform a series of perceptual, cognitive, and motor operations fluently during a time MIT.

This exam assesses visual analysis, focused attention, response selection, and motor execution (Bald, Beamer, Drinkers, Gabriel', Tureen, & Whitened-Israeli, The PASTA is a brain sensitive assessment used to measure the
<https://assignbuster.com/tbi-case-study/>

severity of 2008). A closed head injury as well as, the process of recovery following a TAB. The examinee adds consecutive numbers heard on an auditory tape and responds aloud with the correct sum (University of Texas, n. D.).

These cognitive speed assessments can determine if Mary has a disruption in information processing. Evidence shows that examinees tend to become emotionally distressed due to feelings of failure. This concern will prove to be vital in determining if Mary suffers from Post Traumatic Stress symptoms (University of Texas, n. D.).

Recommendations It is recommended that Mary receive outpatient therapy to learn adaptive behavior strategies on constructing alternative ways to perform tasks, and cognitive rehabilitation, such as pharmacological interventions, to improve attention, memory, and executive functioning.

A 504 plan of accommodations should also be developed to assist Mary in having a successful return back to school. Prognosis If recommendations are followed,