

Neurocognitive disorder due to traumatic brain injury



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Mary was an outgoing teenager who had a lot of friends. She succumbed to the peer pressure of her friends urging her to complete a very dangerous task. This task was to jump from a second floor balcony down to the swimming pool. Mary was a skilled swimmer, however she has no defence against such traumatic brain injury. She was placed on life support as a precaution until she tested well enough in her post traumatic brain exam to be taken off of the additional support. Mary seemed to be improving and was soon able to return to school. This return to school was not what the teachers, her parents, or herself expected. She noticed that there has been some changes to her cognitive abilities and as a result, she is exhibiting a behavior that is opposite of how she normally shows herself.

Mary was referred to my practice and upon examination of her cognitive and neurological history and abilities, it is being determined that Mary is diagnosed with major or mild neurocognitive disorder due to traumatic brain injury. (American Psychiatric Association, 2013) It would be suggested that Mary be watched closely for depression due to the fact that she is already showing some signs of depression. According to DSM 5, major or mild neurocognitive disorder due to traumatic brain injury presents with the signs and symptoms of the condition. (American Psychiatric Association, 2013) The evidence that Mary shows are that she has had a traumatic brain injury that caused the loss of consciousness and she was disoriented and confused. The DSM 5 says that the neurocognitive disorder has to be present immediately after the injury has occurred or immediately after waking from an unconscious state and has to last past the immediate post injury period. (American Psychiatric Association, 2013) Mary woke up in the hospital from

loss of consciousness and was moaning incoherently and was very restless. It is suspected that this is because she did know where she was or what had happened to her. She began to slowly recover and in three weeks was back in school. The three weeks that she spent at home would take her past the immediate post injury period. It is when she went to school that she showed the signs of being confused and not able to keep up in school like she did before. She stated that she was having trouble concentrating and remembering what the teacher had said so that she could take notes as easily as she did before the injury. People that have suffered from a traumatic brain injury often have signs of emotional disturbances, personality changes, and physical disturbances which were all present when Mary returned home from school. It is said in the DSM 5 that people that have suffered from a traumatic brain injury report more symptoms of depression and can also have overlapping symptoms of PTSD (post-traumatic stress disorder). (American Psychiatric Association, 2013) The diagnosis of depression or PTSD is not given to Mary at this time because it is unclear at this time if Mary is having the symptoms of depression because of the stress of returning to school and having the difficulties of that she experienced that day. It would be in the best interest of Mary to note that she has symptoms of depression and PTSD and to continue taking notes on these symptoms for six months before this diagnosis is given to her. Another reason depression is not given to her as a diagnosis at this time and to wait for more substantial evidence is because depression is not a "feeling" conditions. It is more than Mary not wanting to be as outgoing as she was before, not really wanting to eat, or not wanting to do the things that she enjoy before the injury. These are all signs of depression but not enough to <https://assignbuster.com/neurocognitive-disorder-due-to-traumatic-brain-injury/>

diagnose the depression over a one-time occurrence. Depression is evidenced by changes in the brain structure and function. In the center of the brain is where norepinephrine and serotonin modify the brain. A chemical signal is sent down one nerve cell and passed to another nerve cell across a space called a synapse once the receptors are full. What happens in depression is that when the signal is sent, a lot of the chemical is reabsorbed by the sending cell and recycled by the brain. This is called reuptake, when the signal is sent again, there is a double amount of the chemical that is sent and reuptake occurs again and a lot of the chemical that was released is thrown away by the brain. If you are not releasing enough of the chemical to fill up the receptors on the receiving nerve, it leaves "holes" in that nerve and symptoms of depression occur. (University of the West of England, Bristol, 2015) With Mary having a traumatic brain injury and depression being comorbid it makes sense that this could be what is going on with her because the nerves in her brain would have been damaged causing this cycle which leads to depression.

According to the Glasgow Coma Scales, Mary would be considered as having moderate traumatic brain injury. The Glasgow Coma Scale ranks the patient in three different categories, eyes, verbal and motor ability. The scale ranks patients from 3-15 with 3 being the most severe and the worst and 15 being the most mild and the best of scores. (Muriel Deutsch Lezak, Diane B. Owieson, Erin D. Bigler, Daniel Tanel, 2012) Mary's initial level of consciousness was an overall 6 when she originally arrived at the hospital. She was speaking incoherently (GCS rates this as a 2), and she was moving restlessly as if she was in pain (GCS rates this as a 4). Upon waking up, Mary

scored an overall 10 on the Glasgow Coma Scale with eye movement scoring 3 (she opened them to sound which would be her best response), verbal score was 1 (she did not speak when tested), and her motor score was 6 (she moved her finger when asked to do so). Based on this score and the fact that she was in the coma for less than 6 hours gives her a TBI classification of moderate. When she was later examined, Mary had improved quite a bit. Her Coma score was an overall 15 by morning because she could recognize and respond to her parents and she was talking to them.

Mary's pre-morbid level of functioning is assumed to be high based on the fact that she performs within the top of her class and is said to excel academically. Using the Wechsler Test of Adult Reading, Mary would be asked to pronounce 50 irregularly spelled words and scored according to how closely they were correctly pronounced. (Muriel Deutsch Lezak, Diane B. owieson, Erin D. Bigler, Daniel Tanel, 2012). Due to the report of how well she was doing before her injury, using a previous IQ test and No Child Left Behind this test should be able to give an account of the level of functioning that Mary is at currently. There is also other yearly school assessment tests that can be looked at to assess her pre-injury academic ability. The names of these test can vary depending on the State you are in. Using the WAIS-IV to assess Mary, it would show that her reasoning and comprehension skills are not where they were pre-injury. This test is used to assess the verbal and performance academic ability of a person. This test would let it be seen, the exact areas that Mary is falling short.

By using tests that would measure Mary's cognitive speed we would be able to see that the damage to her frontal lobe has caused some deficit in her

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ability to concentrate because this is where the areas of problem solving, memory, and language is stored. By this part of her brain being damaged during the injury, it makes it more difficult for her to concentrate on what is going on because it takes her longer to process the activity around her, what is being said, and remembering what was said to her.

Recommendations would be for Mary to begin cognitive therapy that would help her to regain the most normal function of this part of her brain.

Accommodation for Mary would be very sensitive because she held such high esteem as an honor student, we would not want to make her feel any less, however there are some accommodations that need to be done, at least until she regains full cognitive ability. Mary's educators should allow extra time for her to complete assignments and homework. Mary can carry a voice recorder with her that will record the lectures instead of her writing them that way when she studies, she can listen to the lectures and rewind as needed. While Mary may have some lasting effects of her injury, there is no reason a full cognitive and educational recovery cannot be accomplished.

Mary presented at the hospital with a traumatic brain injury three weeks prior to returning to school. She has made great accomplishments and cognitive difficulty was not noticed until she returned to school. Upon my examination of Mary, she has had some great medical accomplishments and the prognosis of her full recovery is possible. There may be some lasting effects like with most people that have had a traumatic brain injury such as increased headaches, seizure activity, and depression but there is no reason to assume that Mary will have to alter her life any way. With cognitive

therapy and temporary educational accommodations Mary should return to her pre-injury educational and cognitive levels.

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