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Deficits of Children with TBI: Returning to School

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DEFICITS OF CHILDREN WITH TBI: RETURNING TO EDUCATION

by

Brandon D. Clark

B.S., Southern Illinois University Carbondale, 2009

A Research Paper

Submitted in Partial Fulfillment of the Requirements for the
Master of Service

Rehabilitation Institute
in the Graduate School
Southern Illinois University Carbondale
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RESEARCH PAPER APPROVAL

DEFICITS OF CHILDREN WITH TBI: RETURNING TO SCHOOL

By

Brandon D. Clark

A Research Paper Submitted in Partial

Fulfillment of the Requirements

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in the field of Rehabilitation Administration and Services

Approved by:

(Dr. William Crimando)

Graduate School
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CHAPTER 1

INTRODUCTION

Statement of the Problem

Your thirteen-year-old son is an avid dirt bike competitor and you enjoy watching him compete, even though you cringe at the death-defying heights. One day you have a particularly chilling feeling that comes over your body while your child is in mid-air. You want to look away, but you know no matter what direction you look the outcome will affect you! Then it happens, your only son mistimed his jump and landed on his head. He is alive and breathing, but the impact of the fall has left him unconscious. The fact that he is breathing and not showing any other signs of injury lead you to believe that he will be okay, besides, he was wearing a helmet! Your son is quickly air lifted to the hospital where you learn his injuries are worse than you thought! The doctor tells you that he has experienced a severe traumatic brain injury and is in a coma. The doctor also notifies you that if he wakes up, there is a possibility he might not be the same as he was before. You have heard of traumatic brain injury, but never truly understood what happens to the brain. What will you do? Will you be able to care for him? You feel this is a nightmare, how could this happen to you?

As Carl Sagan once said in his 'Dragons of Eden' novel, "absence of evidence is not evidence of absence." This quote represents the hidden disability of people who have experienced a head injury or a traumatic brain injury (TBI). According to Christensen (2001), a head injury occurs "when the head is hit by something, or the head is abruptly stopped or sped up, physical forces and energy are transferred to the head and brain, and can result in injury" (p. 8). More specifically, Christensen defines TBI by observations made after an incident. For example, experiencing loss of consciousness, weakness in particular parts of the body, or

difficulty in thinking or speaking. To be clear about TBIs and head injuries, there is a need to understand everything about them. This includes the various types, which are as follows:

- Mild TBI vs. Moderate TBI vs. Severe TBI
- Open-head Injury vs. Closed-head Injury (CHI)
- Congenital TBI vs. Acquired TBI

There are three different types of TBIs: mild, moderate, and severe. A mild TBI is associated with losing consciousness for less than an hour, if at all. Up to one year after the incident, people who have had a mild TBI still experience problems such as memory loss or focus. This affects 10-15% of people diagnosed with mild TBI. In addition, one can experience swelling of the brain if repeated concussions or additional mild TBIs occur resulting in permanent brain damage or death (Lorenz, 2010). A moderate TBI is associated with being unconscious from 1-24 hours. Memory loss is something that can often be expected after the injury, better known as post-traumatic amnesia (PTA). These side effects are known to last anywhere between 24 hours to 7 days. A severe TBI is when one loses consciousness for 24 hours or more. PTA can last for 7 days or longer, but it depends on the person and the injury (Lorenz, 2010).

Open head injuries occur when there is a force that causes penetration from the outside of the skull and leaves an opening, while closed head injuries have no opening (Christensen, 2001). People who have experienced closed head injuries (CHI) face many difficult changes. For example, people who have experienced a CHI have trouble with communication and interacting with others. In addition, individuals with CHI tend to have trouble holding appropriate conversations and also have trouble with listening skills (Youse & Coelho, 2009). Both open and closed head injuries can range from minor to severe. Many people who experience these

types of injuries may heal differently, as not all people or injuries are the same. Other debilitating factors that result from head injuries depend on location of injury. The frontal lobe is located “behind the forehead and eye sockets” (Trudel, Scherer, & Elias, 2011, p. 34). The leading cause of an injury located in the frontal lobe is car accidents and falls. Injury in this particular area affects executive functioning that include, “working memory, initiating, organizing, planning, prioritizing, goal setting, problem solving, abstract reasoning, etc.” (Trudel et al., 2011, p. 34).

Acquired brain injuries are caused due to blows to the head and also due to degenerative diseases (Japp, 2005). With the growing number of head injuries each year, more studies are being done in efforts to understand how the brain functions post injury. One of the leading divisions in the study of TBIs include the Armed Forces. Many injuries to the brain due to insult, such as hard hits or disease, cause many people to have seizures due to illness. According to Trudel et al (2011), “physical symptoms of TBI include paralysis, tremor, dizziness, balance/vestibular problems, sensory deficits, swallowing problems, headache, fatigue” (p. 33). Understanding the different types of TBI and head injuries along with the post symptoms that accompany injury can possibly help prevent debilitating problems and issues.

This paper is an investigation of children with TBIs and the integration/re-integration into education. People with TBI have experienced poor treatment throughout our history just as many individuals with disabilities have throughout past years. Bigler (1996) references the Individuals with Disabilities Education Act (IDEA) as one of the dynamic factors that changed the way people with disabilities were regarded in the school systems across America. The IDEA included TBI as a special education diagnostic category. This law helped change how individuals with disabilities were treated in the educational system. For example, the IDEA

made professionals more aware of the students with disabilities that they would be serving and allowed the students with disabilities a wide range of freedom into the educational field.

However, there is a problem with the integration from hospital to school that also serves as a huge dilemma for children with TBI attempting to return to school. The problem is those in the role of educator are poorly equipped to deal with the challenges of servicing those with a TBI.

Most teachers and educators lack the skill and/or knowledge to successfully educate those with TBIs. Training is required in order to fully understand the effects a TBI has on a child and their integration back into education (Glang, Tyler, Pearson, Todis, & Morvant, 2004).

Research on TBI and reintegration back into school is needed not only to point out advantages, but also possible disadvantages or gaps in services. Research will assist those in the role of educators by creating new alternatives for educating and accepting those with TBI back into educational services. In addition, there may also be opportunities to educate those in the position of caregivers with new information for caring for individuals with TBI. The reintegration back to school should provide the same services for those with TBI with the same opportunities to gain knowledge that would propel them towards furthering their education or opportunities to compete in the workforce.

The purpose of this paper is to gain a better understanding of the deficits those with TBI endure post injury and the challenges of reintegrating into education.

- Research Question 1: What population is more prone to obtaining a TBI?
- Research Question 2: What can TBI affect?
- Research Question 3: What are common issues with TBIs and treatment options?
- Research Question 4: What can be expected when returning to school?

Definitions of Terms

Traumatic Brain Injury (TBI): A non-degenerative, non-congenital insult to the brain from an external mechanical force, possibly leading to permanent or temporary impairment of cognitive, physical, and psychosocial functions, with an associated diminishing or altered state of consciousness (Dawodu, 1994).

Individuals with Disabilities Education Act (IDEA): A United States federal law that governs how states and public agencies provide early intervention, special education, and related services to children with disabilities (<http://encyclopedia.thefreedictionary.com>).

No Child Left Behind Act (NCLB): An act inducted by President George W. Bush shortly after he took office in 2001. The goal of NCLB was to set equal standards for all schools in regards to reading and math, as well take into account the needs of children with special needs (Handler, 2006).

Americans with Disabilities Act (ADA): The ADA of 1990 was developed to ensure equal opportunities for people with disabilities. The law helped emphasize fair opportunities for advancement, equal wages, and other liberties that were being deprived against people with disabilities (Rosen, 1993).

The Rehabilitation Act of 1973: This act was put in place to discourage discrimination against people with disabilities. The law applies to businesses that are under federal contracts, federal employment, federal financing, etc. (Rehabilitation Act of 1973 P.L. 93-112).

Ongoing Support: The continuation of support systems that can include the assistance of money, transportation, help with management such as social and communication issues (Izaute et al., 2008).

Reintegration: The process of reintegrating back into an entity (<http://www.merriam-webster.com>).

CHAPTER 2

REVIEW OF LITERATURE

This chapter will address the many deficits that can transpire as an outcome of experiencing a TBI. The discussed areas of interest will include who is more prone to experiencing a TBI, yearly costs of a TBI, how a TBI can affect memory, how a TBI can affect, speech/language, the affects people with TBI experience with vision, how speech is affected, behavior changes, affects on attention, the way the injury affects the family, what are some treatment methods used today and how they work, in addition to issues people with TBI face, and returning to academia post injury. In addition, tips to help counteract or better manage some situations will be provided in accordance with caring for the injured. Points for staying focused and avoiding burnout are also listed for those in the position of caring for those with TBI.

More Prone to TBI?

TBI has no set preference as to whom it affects. In other words, everyone has an equal opportunity to experience its affects on the human body and mind. With that said, TBI mostly effects those that are more on the adventurous or outgoing side. According to Campbell (2000), this includes young adults between the ages of 16 to 25 and elderly men and women that are between the ages of 60 to 65. It is found in children and adolescents that TBI is the main cause for disabilities and fatalities within these groups (Bilyew, 2006). “TBIs are responsible for 1 to 2 million people being treated and released from hospitals, 230,000 hospitalizations per year, and over 50,000 deaths per year” (Johnson, 2003, p. 6).

The fact is that unless everyone lived in a bubble, there really is no way to prevent these injuries. Statistics report at an alarming rate that people in the U.S. suffer a TBI every 21 seconds (Johnson, 2003). With so many injuries attributed to hospitals every year, you might

wonder why there is not more being done to reduce the number of injuries each year. Males between the ages of 15 to 24 are typically more carefree. At that age, males especially seem to have a feeling of invincibility and that nothing can harm them. These feelings lead young men to take more risks and push themselves to the limit without regard for safety (e.g., not wearing helmets and appropriate gear when engaging in extreme sports, getting into fights and conflicts, driving recklessly and not wearing seat belts). Children, ages 5 and younger, seem to be at a more inquisitive stage in life. This is the time when everything that looks interesting must be touched, picked up, and evaluated. Unfortunately, curiosity in these cases can leave children in harms way.

Yearly Costs

When someone experiences a TBI who pays for it? The answer is taxpayers. In some cases, rehabilitative services may last longer than expected and could cost in the ranges of over \$48 billion to \$56 billion dollars (Lorenz, 2010). TBIs that are fatal can cost the nation \$16.6 billion (Johnson, 2003).

TBIs are a growing concern amongst our youth population in America. As generations turn over, we are going to more than likely continue to witness growing numbers of head injuries. In today's society, violence is more prevalent and people are more willing to push the boundaries of safety without regards for their own safety and the consequences. This lack of regard for safety and personal well being ultimately puts stress on this country's pocketbook and on those who have contributed to the cost of the injured.

What Can TBI Affect?

Memory. After the dirt bike accident, your son was not the same. He seems to be incapable of retaining any kind of information. Yesterday you went over simple addition in therapy and he seemed to be getting the hang of it, but today he has forgotten everything that he grasped yesterday. You are extremely worried! Will he ever be the same?

Memory is something that just happens as a natural occurrence of the mind. Often times we cannot help the things that we remember, but regardless, they are stored for at least a short period of time. Our memory serves us in all places and works seemingly well when most needed. For instance, needing to remember a phone number for a matter of minutes while we retrieve a pencil and paper to record it visually, or cramming the night before for a test in the morning. After experiencing a TBI, it is common to lose recollection or have memory loss to the point where one may forget how to conduct simple, everyday tasks (Johnson, 2003).

So what are the affects on memory after a TBI? A TBI can affect people's memory differently, but individuals may experience alternative symptoms. Most complaints revolve around memory, cognitive ability, and the ability to process information (Japp, 2005). Transitioning back into school as a student with these deficits can be challenging. According to Schutz (2010), poor memory is one of the most common symptoms of TBI. But there are ways to assist TBI affected students whose memory has been affected by their accident. The way to help assist these children is to first understand as much as one can about memory and the different types that are affected by the injury. Knight (2009) suggests multiple areas of memory can be affected:

- Short term memory
- Immediate memory

- Functional memory
- Working memory
- Complex memory

Knowing the severity of the injury can help determine how memory will be affected. In addition to understanding these multiple levels of memory that are damaged due to the accident, Shannon (2010), believes there are ways educators and guardians can help improve the memory of students, and they are as follows:

- Come up with a routine of daily tasks.
- Be organized.
- Use tools that aid the memory, such as post-it notes.
- Stay current on new information.
- Stay rested and stress-free.
- Understand side affects of all medications that affect memory.

Attention. Before the accident, whenever you asked your son a question he gave you his undivided attention. He would often smile when spoken to or asked a question. But now it seems when you speak his mind is absent. Within a minute of conversation you have lost his attention. You wonder why can I not get him to pay attention?

As a student, I know how important having to memorize things can be. So many important things are communicated in a class setting that sometimes giving your undivided attention to the surroundings is necessary in order to obtain information. More than often, being able to pay attention is the majority of the class requirements; it can mean the difference of passing or being left behind. According to Japp (2005), lack of attentiveness can obstruct work effectiveness, maintaining employment, or learning new requirements. Often the ability to learn

is forgotten, but the ability to recall remains intact if enough effort is applied. Schutz (2010) goes on to say, an emblem of TBI is cognitive instability or unbalanced attention. According to Japp (p. 72) attention is broken up into several different categories:

1. Sustained attention: when a person is able to concentrate for prolonged periods of time, in most cases at least 20 minutes.
2. Divided attention: being able to take in information that competes with other information. The more complex a job, the more probability of inability to divide attention between different activities becoming an issue.
3. Selective attention: being able to filter out important information from irrelevant information.

Although those with TBI may have overwhelming obstacles with returning to the classroom, the attention function is one that has the best chance to recover. One way to help a person who is recovering from a TBI with attention problems is through rehabilitation. Japp (2005) stated, attentional problems are one of the most common deficits of TBI that can be corrected given time and through rehabilitation. To expand the knowledge of how memory works and its functions, Knight (2009) has broken down attention into its most important components. The components are focus, encode, shift, sustain, stability factor.

Focus Contrast Construct determines ones ability to focus on a specific task. This task is considered key in a classroom setting. Encoding allows one to retain information briefly while also multitasking during other processes. This task is necessary for classroom success. Shift is the capacity to move on to another task. This task is useful and needed in all life activities, and even more important in the classroom setting. Sustained attention is when one is capable of staying focused on one task at a time. Being able to stay on task is key, not only in everyday life

situations, but is necessary for educational settings. Steadiness can be viewed as the variant to reaction time and pace of inaccuracy. Poor showing of classroom potential can be linked to drawn out attention in the academic setting (Knight, 2009).

In order to help those who experience attention and concentration problems after a TBI, we once again turn to Shannon (2010) for ways to help improve these much-needed functions.

The steps for improvement are as listed:

- Find a suitable place to work that limits distractions.
- Avoid multitasking; take it one task at a time.
- Practice focus and attention skills by doing everyday tasks, such as reading a short story and performing simple math problems.
- Give breaks when they seem tired.

Speech and Communication. Your son is trying to tell you something that he wants, but he has trouble forming the words. Now not only is he frustrated, but is unwilling to do anything else to help his rehabilitation process. To make matters worse, sometimes when people are trying to address him he blurts out obscenities and frightening people away. You wish that there was a way you could help him, but you also know that his injury is a process! You feel helpless!

Most people prefer speech as their method of communication. It is considered the most formal way of communicating. When speech is interrupted in anyway it seems to make things difficult as far as relaying thoughts, ideas, and overall communication. Shannon (2010) believes the problems that people experience with language and communication are as listed:

- Choosing the right words of expression.
- Receptive communication skills.
- Staying focused and on topic.

- Expressive communication skills.
- Non-verbal communication skills.
- Reading and understanding others expressed emotions and responding appropriately.
- Not understanding when a person is being rude, disrespectful, or being offensive. Not understanding jokes.

Without one's ability to verbally articulate, it seems to interrupt many everyday life functions. Borgelt and Wright (2003) described the diagnoses developed by professionals for this problem, which is known as aphasia. Aphasia is defined as "a chronic, acquired impairment in the comprehension and formulation of language caused by a focal lesion to a part of the brain concerned specifically with language processing - typically the perisylvian region of the left cortical hemisphere" (Borgelt & Wright, 2003, p. 334). Bilyew (2006) also agrees with the theory that verbal communication is key in social settings such as a school. She mentions that due to the lack of ability to use the pragmatic function in fitting situations, children with TBI lack proper communication skill. Bilyew goes on to say that these deficits in children lead to aggressive behavior because they are not rehearsed in building relationships with others. Communication is not only linked to a lack of word forming, but also the use of inappropriate word usage. Knight (2009) suggests that following a TBI, impulsiveness is the leading problem with building and preserving connections with others. It is also suggested that children with a TBI have self-esteem problems, maladaptive behavior, increased levels of loneliness, and are more likely to engage in aggressive behaviors (Knight, 2009).

Being able to communicate in a school setting is imperative to all students. This is the period in their life where they develop life long friends and decide what social groups will define

their school career. To be left out of the school right of passage can have a negative effect on any member of society, but may have a more detrimental affect on those with TBIs.

In an endeavor to assist children with TBI in the school setting, we once again review suggestions from Shannon (2010), these suggestions are primarily for family members, giving they spend the majority of the time with the child. These suggestions can help improve the child's communication and help to adjust to the school setting.

- Use positive words and a soft speaking voice to avoid offending the person.
- Often be sure the injured person fully understands what is being said.
- Speak slowly and in short, simple sentences.
- Agree on an identifier that lets the injured person know when they have drifted off topic during conversation. Practice the identifier ahead of time to be sure that there is no confusion.
- Avoid multiple people speaking at one time.

It is important to understand that children with TBI often lower language proficiency before they relearn advanced language proficiency (Bilyew, 2006).

Vision. Other problems that arrive from TBI also include troubles with vision.

According to Japp (2005), it is most common for those who have experienced a TBI to have vision problems. Japp believes this may be a result of damage to the “optic nerve, optic chiasm, optic tract or visual cortex” (p. 35). In addition, the National Institute of Neurological Disorders and Stroke website conveys that clients are often slow to recognize what they are seeing. Hand-eye coordination has also been recorded as being problematic for most TBI patients. Japp (2005) goes on to say that “blind spots, visual blindness, visual neglect and double vision” are more than likely to be present (p. 35). Other problems with vision can include TBI patients walking into or

mishandling objects and seemingly unbalanced. Although a TBI is usually not the reason for actual deafness or blindness, a TBI can cause problems with processing information, both visually and using auditory senses. Examples used include problems in judging spatial relationships, such as bumping into furniture due to the inability to properly judge distance (Cicala, 1999).

Vision is one of the most important of the human senses. Sight is also one of the most preferred senses because it allows us to take in information at a faster rate. Sight in the educational setting allows us to learn by observing which is often required in most situations, such as solving math problems and figuring equations.

Behavior. Your son was once very mild-mannered. Now he often gets angry for no reason at all. You have been receiving a lot of complaints about him around town. The other day he had an altercation with the neighbor over a misunderstanding. On top of that, another neighbor informed you that your son made offensive remarks to her and her daughter who is visiting from college. She said “she would have gone straight to the police had it been anyone else!” You apologized for his behavior and tried to assure your neighbors that the incidents would never happen again. You wonder if this is even your son!

Often with hidden disabilities we see people doing things that we put into question. The behavior just seems out of place and odd to people who are not familiar with the situation because TBI is a hidden disability. Because TBI is a hidden disability, we prematurely label individuals as people who are disobedient, troublemakers, under achievers, mischievous, or criminals. Borgelt and Wright (2003) discussed knowledge and understanding is important for working with those with TBI. It is crucial we are aware of the harm caused by construing behavior without data. Unproven data can become harmful. Good behavior is important for kids

who have experienced a TBI and are in the process of recovering because classroom behavior partly determines success. Children with TBI who have behavior issues experience interruptions that interfere with their ability to learn and integrate new knowledge (Tucker, 2001).

Emotional inconsistency can also be viewed or categorized under behavioral problems. People with TBI often experience issues dealing with self-control, feelings, and maintaining an even temper (Shannon, 2010). Because emotions often dictate behavior, and disruptions in class can be a factor when educating those with TBI, information on a lack of self-control should be studied. Tucker (2001) it was found that behavioral issues between children with brain injuries tend to have a higher percentage rate of behavioral issues than those without brain injuries. When attempting to understand behavioral issues, understand that behavior issues take many forms besides aggression. For example, extreme social withdrawal, a perfect description would be, behavior that causes concerns or questions the safety of the individual, or situations where behaviors can delay the use of the open community (Alderman, 2001). Dealing with people who have behavior issues is a serious task, and may secretly be a professional rehabilitative experts or teachers worst nightmare for obvious reasons, but one still has a valuable service to perform. To help counteract the fears that many may have when it comes to dealing with this issue, we turn to Shannon (2010) once more for tips to better manage such situations:

- Avoid becoming irate or emotional if an outburst occurs.
- Detach the person away from the situation to help calm him or her down.
- Allow the person to discuss their feelings.
- Provide supportive feedback after the person calms down.
- Transition attention away from outburst onto another topic.

Family. Everything was fine before your son's accident. Now it seems that things are changing for the worst. You seem to have more than the normal amount of disagreements with your spouse and everything turns into an argument. You both agree that you are under a lot of stress due to the medical bills and cost of rehabilitation for your son, but there's more to it than that. With your son's behavior issues and recent trouble he's been getting into with the neighbors, you feel overwhelmed. To add more fuel to your frustration, your son is not as engaged in his rehabilitation therapies as he should be. You do not want to say he is giving up on getting better, but you are not sure what is going on. To add more problems, everyone in the family seems to have something to say about your son, offering their advice, but no one is willing to listen to you. This whole ordeal is taxing and you feel your family is being ripped apart.

Family troubles sometimes go unnoticed due to the fact that there is an injured loved one who has constant needs as well as the majority of one's attention (Klonoff, 2010). Dealing with family members who have a TBI can prove to be very frustrating for all involved. Sometimes it may take a while for everyone to realize that although the person they love looks the same, in many ways they will differ from the way they were before the accident. It is also important to know that caring for a loved one who has experienced a TBI may require ongoing care that can become very expensive.

These costs can differ depending on the severity of the injury. Mild TBIs can cost \$85,000.00, moderate TBIs \$941,000.00, and severe TBIs can cost up to \$3 million (Johnson, 2003). Financial strain can be hard on any family, especially when it seems that no matter what is done more problems continue to pile on. Furthermore, the feeling of helplessness can be frustrating on all sides. Although financial burden is one of the biggest obstacles for families

dealing with TBI, it is not the only obstacle to overcome. Other problems according to Klonoff (2010) include “psychosomatic disorders, interpersonal discord, financial burden, maladaptive role change, feeling trapped, social isolation, the feeling of a never-ending crisis, and episodic loss reactions” (p. 153). The stress of a TBI is also known to build an increased use of drugs and alcohol use of the family member or caregiver (Harris, Godfrey, Partridge, & Knight, 2001). It is conditioning for change over time that helps families deal with sudden alternatives, but too much change at one time can prove to be overwhelming for any family.

After the accident, family members are immediately put to the test to see how they will handle the situation. How will communication change between the parents of the injured child and the rest of friends and family? According to Klonoff (2010), many of the perceived emotional troubles that overcome a family are due to specific conflicts between specific individuals within the family and parents or caregivers to the injured individual. At the onset of the accident, family and close friends may be present nearly all the time, they frequent the hospital, want to be kept updated on any changes or new information, etc. As time goes on, the phone calls become less frequent or stop all together, visits stop, and it seems as though people have forgotten about your issue and you wonder why. The fact is, people find ways to move on with their lives, such as resuming careers and jobs. After a while it can become awkward for friends who aren't sure what to do or how to help so they stay away, which can change the relationship (Borgelt & Wright, 2003).

Becoming the primary caregiver for the injured can also be a taxing factor that leaves parents and loved ones feeling burnt out. Wade, Taylor, Drotar, Stancin, and Yeates (1998) showed that caregivers noticed stress due to the child's injury. As a result of this ongoing role as caregiver, social relationships diminish, often total loss of personal time and freedoms are lost

such as attending a movie or concert, and the loss of energy. These events often affect siblings in a manner that parents expect more of them and require them to quickly mature (Borgelt & Wright, 2003). The feeling of being isolated can cause mental stress for the caregiver as well as the injured loved one (Eden & Stevens, 2006).

Because caring for members of the family who have experienced a TBI can be a big change that affects families mostly in what looks to be in negative ways, a list of tips and what to do's have been compiled to assist those who face the long road to recovery. The information presented comes from Shannon (2010, p. 338). The step is to reduce stress; stress can lead to many other problems and can leave the caregiver in a position where they are useless to the situation, in this case they become the burden or problem. To reduce stress, it is important to learn relaxation strategies. Although the thought of actually taking a few moments may seem impossible, just remember that being burnt out, depressed, upset, or angry does not serve anyone in this situation. Find out what works best for you (e.g. sitting down and counting to ten, having a glass of lemonade, etc.). Learn coping strategies that work best for the situation, because the situation at present cannot be changed. Also, try learning new ways of working around this new way of living including tips listed below:

- Take time out for yourself
- Try to set a regular schedule to follow
- Try to stay active and incorporate exercise in your routine
- Attend support groups
- Be more authoritative when requesting help or support from family
- Juggle roles between family members from time to time
- Give yourself rewards every once in a while

We always seem to focus on the injured and how their life is forever changed, but often the backstory on those left in the aftermath of a tragedy are overlooked. Those who are responsible for mending the broken pieces back together experience a sometimes very difficult alteration within their own lives. We often give our condolences for the victim and express how sorry we are that they were hurt, but that same amount of compassion for the injured should be expressed to those who are also forever affected by the sudden change to their lives. Remind them from time to time that things will work out and try to lend a helping hand when possible. It is also helpful for therapists to work side by side with family and friends. This closeness allows the therapist to understand what the family is experiencing as opposed to only working with the injured person (Campbell, 2000).

Most importantly, it should be stressed again for those who are now in the life-long rehabilitation role, to remember that someone has to be in charge of the many of situations that will arise. Staying cool, calm, and collected can help one make better decisions. It is also important to remember that this situation is not temporary and can require your participation in the recovery process for possibly a long period of time so it is important to develop coping strategies as early as possible. Like my grandmother often says, “life is 10% of what you make it and 90% of how you take it!” It is within the beholders power to accept life willingly or accept it forcefully. Denial is the biggest problem within families who suffer TBIs (Miller, Flaherty, & Coallier, 2001).

Treatment and Issues

Your son has already started his rehabilitation. He seems like he has transformed overnight from the son you once knew. And to top it off, he is not as responsive to treatment as you had hoped. You wonder is there maybe something else that can be done? What other kinds

of treatments are out there? Should you seek a second opinion? The other day while talking to a friend, she told you she knew a great herbal healer and that he has performed miracles for some friends of hers that were going through physical difficulties. Another source informed you of a little church outside of town that performs spiritual healing. You always believed that those types of things were a scam, but your feeling desperate! Will this “healing” thing work? Besides, what do you have to lose?

According to Campbell (2000), there has been ongoing research conducted by physiotherapists who have developed what they label as a “more proactive approach to early management” that includes a “splinting” and have become more involved with patients, as well as working with other professionals to promote “mobility, independence, and a potential return to home life and normalcy” (p. 67).

There are many problems when treating TBI patients. Lorenz (2010) states there is poor quality of care for individuals with TBI and that this problem exists worldwide. The problem is there is not enough information or understanding of the injury, hurdles, and limits on rehabilitative services, as well as poor stance coming from providers. Other problems come from within the medical field itself. Swaine et al. (2008) explains the limitations of training professionals in the field of healthcare when dealing with young patients. Professionals admit there are barriers that make this task next to impossible, yet they are viewed as experts. It may be partly difficult to understand certain aspects of the brain because of the consistency and how delicate it is. The brain is described as having a soft, mushy consistency (Schutz, 2010). It is easy to study the brain of a deceased person because the manner in which it can be manipulated is different compared to a brain that is still living and requires delicate handling. Furthermore,

Lorenz (2010) suggests that research conducted focuses on several areas that include the supplier, how it costs for services provided for the survivors, as well as equipment.

A TBI experience is one that is life changing. After the injury the road to recovery is next. Rehabilitation is “the process of restoring abilities that someone used to have, but lost due to injury or illness” (Christensen, 2001, p. 23). The actual recovery process itself depends on how severe the injury is (Schutz, 2010). The recovery process can involve years of rehabilitation both in a supervised professional setting and the home. According to Campbell (2000), this process begins with a physiotherapist. The physiotherapist is in charge of understanding the injured. They should be aware of the client’s limitations both cognitively as well as physically. They are responsible for recording the client’s strengths and limitations so that an appropriate program can be devised for the caregivers at home. Expectations of a full recovery should not be expected, however on the lines of a more realistic recovery, improvements in some areas should be expected (Dykeman, 2009). The process of becoming the primary caregiver for the injured loved one can prove to be an arduous task. One can view the situation as caring for the same person only reverted somewhat back to a child state, but this is different. This person has already past that state and had already acquired skills that deemed them capable of performing multiple tasks by his/her own free will.

Families should understand post injury, during the recovery process to not set exceptions at an unrealistic level. In addition, professionals should inform families of what to expect and be sure to keep family integrated in the healing process as much as possible. These processes include not only the rehabilitation process but also the reintegration into school process as well (Johnson, 2003). Keeping family in the loop can help prevent the feeling of isolation from treatment and help them to learn fast for the long road of recovery.

Another important form of rehabilitation for TBI is psychotherapy. What is psychotherapy and why is this form of therapy/treatment important? Psychotherapy is administered for patients who have undergone a TBI, but have trouble with incorporating themselves back into school or the employment setting. In addition, these individuals often perform at low standards when trying to obtain an independent lifestyle in the home or community. In order for a patient to receive this form of treatment, they first must be referred by a physician, even if the injured person feels this form of treatment will be beneficial to their recovery (Klonoff, 2010).

A study conducted across four countries (Australia, Great Britain, Sweden, and the United States) revealed that people with TBI feel ignored and a lack of support by their physician's in-regards for needed care. These individuals felt a strong lack of empathy for what they were experiencing from their providers and felt they were "malingering or pretending they had symptoms that were not real (Lorenz, 2010).

Because TBI is such a big part of society across the world, it is imperative that professionals do as much as possible to grasp, not only an understanding of this condition and it's many affects, but an understanding of the individuals who have experienced it's affects personally. People with a voice should be heard no matter what disability they are afflicted with. With so many issues people with disability face, the last worry they should be concerned with is a lack of respect, feeling ignored, or a lack of support from those they depend on.

The affects a TBI can have on the human condition are profound. There are no strong preventative measures to completely extinguish TBIs, but there are preventative measures that can be adapted to minimize head blows that cause major damage;

- Follow proper safety precautions

- Avoid unnecessary risk
- Never down play an injury, get checked out
- Be aware of the surroundings

Returning to School

Your son has survived an accident where he sustained a TBI. He has completed his ordered rehabilitation and is now released from the hospital. Your son will be continuing rehabilitation services both at an outside facility and at home. It has been almost seven months since the accident and the time is approaching for him to return to school. You knew this day was coming, but you didn't expect it to approach so quickly. You have been working with him on some of the old projects he left off on from school before his accident and he seemed to be coming along. You question if he is ready to return to public education. How will he handle it? The rest of your family agrees that he needs to be placed back in school around his peers.

The returning to school process is in some way the most difficult. According to Dykeman (2009), children returning to school with a TBI experience many changes. For example, they may incur sensory-motor issues, cognitive and behavioral issues, and headaches. They may also display emotional problems, dis-inhibition, become aggressive, confrontational, seem insensitive and egocentric, depressed, have avoidance behaviors, and disruptive sleep patterns. Shannon (2010) believes that most TBI injuries will result in some disturbance in sleep pattern no matter the severity of the injury. Sleep patterns contribute to poor work results in the classroom and amplify the feelings of depression, fatigue, irritability, etc. These deficits can have a profound affect on parents or those in the role of caregiver.

A caregiver may feel like they have been able to control many of the situations up to this point, and although they can be very much involved in the arrangement and reintegration

process, they cannot control what happens in the everyday classroom. Parents and caregivers must understand that this step is a great accomplishment for the injured person. Returning to school allows them to get back to doing normal things in their life, such as making friends and being apart of a social group, learning, deciding what they find interesting, and so on. Families may worry about many factors when returning their child to school. For instance, if they will be accepted by the other students, if they will perform well, the stigma that may come from their disability, and if any behavior issues may be a problem, and so on. Thus, the collaboration between rehabilitation counselor and teacher is very important.

Parents and those who play the role of care providers for children with TBI looking to return to school should consider many of the deficits discussed earlier in the reading. One of the most notable deficits includes those that involve behavioral issues. These issues can cause disruptions and present problems for instructors in the classroom. Dykeman (2009) suggests that children with TBI can oftentimes demonstrate behaviors such as withdrawal from activities that are challenging or last for long periods of time. They are also known to withdraw from social activities and interaction.

Another main problem may come from the education system itself. According to Turkstra, Williams, Tonks, and Frampton (2008), young people returning to school after a TBI face the risk of their schools not being prepared for their return. They may lack the appropriate workings and tools to document important information. Furthermore, the implications for peer relationship issues can pose problems due to mismanagement resulting in poor outcomes for the student with TBI. However, implementing programs that prepare children with TBI for the return to the classroom can address the scope of the problem. Dykeman's (2009) research

suggests that children who have TBIs returning to school perform better when support agencies were implemented early into their injury, such as community re-entry programs.

Community outreach programs provide personnel and family with counseling and education. Programs such as these were found to show improvements on their overall disability and were also found to improve in areas of independence as opposed to those who did not receive transitional services or started late. Dykeman's (2009) findings were based on a study that involved 56 youths completing a survey. The results indicated that 21 percent of those who had completed the survey received the service, while 41 percent only received some sort of support. Of those who received the transition services, results show they performed better when returned to the classroom.

To better prepare for returning the injured child to school, caregivers may want to communicate with all professionals (e.g., rehabilitation therapists and teachers) that have been involved in the treatment process as well as conduct as much research as possible for this process (Dykeman, 2009). Some laws were designed to benefit the child returning to school, such as No Child Left Behind Act of 2001, the Americans with Disabilities Act (ADA) of 1990, and the Rehabilitation Act of 1973: Section 504 2004 Legislative Re-authorization of the Individuals with Disabilities Education Act (IDEA).

The No Child Left Behind Act of 2001 was passed because of a growing concern for children in the U.S. school systems. The bill was passed as an act of congress during president Bush's term. The act serves as a guide for children returning to education because it holds specific information that relates to children with disabilities. Schools are required to provide extra assistance and lower expectations for low-performing or disabled children (<http://www2.ed.gov>).

The ADA was developed in 1990. The purpose of this act was to forcefully extinguish the mistreatment and unfair disadvantages people with disabilities faced. The ADA of 1990 assist students with disabilities by mandating that public schools provide reasonable accommodations (Rosen, 1993).

The Rehabilitation Act of 1973: Section 504 is designed for people with disabilities and it was set in place to protect them from discrimination based on that disability (Wehman, 1985). Understanding the laws that apply to children returning to school with a disability is a very important function for the care provider. With knowledge of these laws for children with TBI, the process of returning the child should be considered easier. The 2004 IDEA requires school systems to assess children with behavioral issues (Dykeman, 2009).

Other important factors that should be considered when returning the child to school include many of the briefly discussed areas mentioned earlier in the paper. Considering the child's ability to socially interact and express oneself is a major factor and is often a deficit that a person with TBI would experience. Turkstra et al. (2008) labeled the skill of social interaction as "social cognition". She and her colleagues believe this skill revolves around being able to "perceive information, understand its stated and implied meaning, and respond in a way that is appropriate to context, and that this process must be executed rapidly, in an interaction that is continuously evolving" (p.153). As we have previously stated, interaction at a young age amongst peers is pertinent for development. We cannot make the mistake of undermining or underestimating the importance of being social at a young age because of the opportunities of learning that accompany each encounter.

When a person experiences a TBI it can be traumatic, not only for that individual, but also on the family of the injured person. The struggles that face all parties after the injury prove

to be the most daunting. The recovery process and the course of getting rehabilitated accompanied with all the unanswered questions can take its toll on the injured party as well as the family who is there for support.

CHAPTER 3

DISCUSSION

As we become more knowledgeable about TBI, there are chances we can decrease the hurdles of reintegrating children who have experienced TBI back into the educational system. Rehabilitation, and eventual reintegration back to school, is a vital part of the recovery process for children who have TBI. The educational system is the first step towards independence and regaining control after the injury. This research aids the reveal of many obstacles and hurdles that are the resulting aftermath of suffering a traumatic head injury as well as the disruption of functions that change the person's behavior and make them different from what they once were. Because these injuries can happen to anyone, it is important to be aware of the changes of the injured as well as all parties involved.

The literature reviewed for this paper revealed many opinions on returning to school after TBI that suggest that many of the authors agree that the effects of the injury are not only physical, but one is also affected cognitively. Various articles and journals report that the return to education for children who have experienced a TBI can be both difficult for the child as well as the educators. The road to recovery should involve all parties who play a significant role in the road to recovery; these parties include rehabilitation experts, parents or care givers, and the education systems or teachers. Communication can lead to easier transitions from rehabilitation to school by providing teachers with vital information that will allow educators to deliver services in a more effective manner.

The Rehabilitation Act of 1973, the American with Disability Act of 1990, IDEA, and the No Child Left Behind Act have improved the way individuals afflicted with disabilities are treated throughout society. These liberal rights allowed for children with disabilities, including

TBI, to have the opportunity to be educated and better compete to provide a better life for themselves. Returning to school provides many opportunities that are not limited to intelligence growth, but also teaches children how to interact with others and develop life long friends and relationships. These opportunities help to ensure a healthy life and serve to provide a normal upbringing by engaging in situations that children in school usually encounter.

Rehabilitation programs can prove to have a tremendous amount of success for those with TBI in returning to a normal life. However, to continue improving on gained results, rehabilitation should be ongoing. While conducting research on children with TBI, there was not any information detected that would suggest that returning to a public school setting would be a bad idea. Although it would be wise to consider that every case is different and no two people are the same, different individuals consequent in different results. It would not be wise to also consider that the injured child is also as much a part of their recovery as any other so their feelings and opinions should be heard and taken into consideration whenever possible.

As we conclude on children with TBI and the many obstacles and deficits they face post-injury when returning to school, it should be retained that the opportunity to experience a normal process of obtaining education is one the most important processes in a child's life and helps to shape who they may become. This process should not be overlooked or taken for granted mainly because the child wants to return to a state of normalcy. Many advantages are to be gained from learning as much as possible about the deficits post TBI before returning the child to school to ensure a greater reintegration process.

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