This report begins by providing two case examples of closed head injuries in families. Closed head injuries or traumatic brain injuries are briefly defined and it is noted that brain injury can cause socialization problems, personality changes, and confusion. It is suggested that families that have an individual member with a closed head injury can become stuck in the developmental life cycle. The need for family education, support, and therapy is explained and strategies for helping families are discussed. It is recommended that family therapists working with these families: (1) understand the family history; (2) provide education, support, and therapy; and (3) encourage a supportive, nurturing environment. The need for a complete assessment is emphasized and the usefulness of an interdisciplinary team approach to assessment is discussed. Developmental issues are considered for children, adolescents, and adults who experience a closed head injury. (NB)
FAMILY SYSTEMS ISSUES ASSOCIATED WITH CLOSED HEAD INJURIES

Case Example:

1. Joe and Alice were married ten years and travelled around the country, enjoying their youthful relationship. Joe was a professional lineman who worked for several utility and power companies across the United States. Alice enjoyed being by his side and raising their two children.

Dangerous jobs were typical for Joe to encounter in his workday. On one given day, Joe had an accident. He fell from a top of a utility pole and severely injured himself.

Today, Joe is able to move one arm and uses this to communicate with via a speech communication device. He has some contact with his family, usually on holidays. They live a far distance from where he is currently staying. Alice continues to focus her energies towards her sons and remains actively involved as an integral part of his treatment program. Alice questions whether or not Joe is receiving the appropriate type of treatment. She often recalls her involvement when he was first injured. She states that she helped train the nurses as they relied on her for her help.

Case Example:

2. Bill had everything going for him. He was 21 years old, socially involved with other people, had a steady girlfriend, and a full-time job. He was just starting to develop as a young adult when he was involved in a car accident. The hood of the car was crushed. Bill was taken to a local hospital and was released that night after running the usual series of diagnostic tests.

Bill's girlfriend noticed that he started to act different. He became more suspicious of others and also was more isolated. Often times he would curl up in a corner and sit in a room for hours on end. He wore several protective garments on his head to protect his head.

When taken back to the hospital, the physicians could see nothing wrong and told the family that Bill would soon come out of whatever he was experiencing. Bill continues to have a difficult time establishing trusting relationships. He complains of being confused in social situations. He remains involved with his girlfriend.
Definition of C.H.I./T.B.I.:

Closed head injuries or traumatic brain injuries occur as a result of an insult to the brain, not of a degenerative or congenital nature, but caused by an external physical force that may produce a diminished or altered state of consciousness which results in impairment of cognitive abilities or physical functioning. It can also result in a disturbance of behavioral or emotional functioning. These impairments may be either temporary or permanent and cause partial or total functional disability or psycho-social maladjustment.

Brain injury causes:
1. Socialization problems
2. Changes in personality
3. Confusion

Not only are there problems for the individual suffering the brain injury, but there are also problems that families experience when a member of their family has sustained an injury.

Providing family education, support and therapy:

Families that have an individual with a closed head injury, often become "stuck" in the developmental life cycle. Depending on the severity of the "stuckness", certain strategies are useful in helping families acknowledge the loss, mourn the loss, and accept the changed the family member.

1. Understanding the family history.

A complete history is recommended for understanding some of the issues that the family was struggling with prior to the accident. Several family therapists (Olson, Beavers, Reiss), have developed measures and procedures to analyze family interaction, functioning, and style. For instance, it is wise to determine whether or not the family system is viewed as rigid or flexible on a continuum and enmeshed versus disengaged on a continuum. This type of information gathered in the initial assessment will give you insight into how to best "co-opt" the family system in contributing to the patient's treatment program.

Some family therapists have looked at "At Risk" families in terms of the symptoms that the family members demonstrate. An understanding of symptomatology from this point of view aids the family clinician in exploring issues that may be beneath the surface when a family is seen in therapy. Accordingly, it is hypothesized that a traumatic brain injury could be related to "At Risk" families' symptomatology.
Table 1

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Alcohol and drug abuse (reported by family)</td>
<td>24</td>
<td>38</td>
</tr>
<tr>
<td>2) Marital or significant other relationship problem</td>
<td>24</td>
<td>38</td>
</tr>
<tr>
<td>3) Psychiatric history or treatment within the last three years</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>4) History of disruptive or acting out behavior</td>
<td>38</td>
<td>60</td>
</tr>
<tr>
<td>a. jailed</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. school problems</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>c. previous serious auto accident within last 2 years</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>d. fired</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e. dropped out of school</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>f. other impulsive/poor judgement behaviors</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>5) Significant life disruption (in last year)</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>a. serious illness or injury of a relative</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>b. death of a relative</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c. recent unemployment</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>6) Alcohol/drug use at time of accident</td>
<td>37</td>
<td>59</td>
</tr>
<tr>
<td>7) Within 24 hours of the accident</td>
<td>7</td>
<td>11</td>
</tr>
</tbody>
</table>

1Sample of 63 head injured patients, Bryn Mawr Rehabilitation Hospital.

Gathering a complete history will also offer insight regarding the functional level of the individual within the family. As mentioned before, families can get "stuck" in the developmental life cycle. If a young person is involved in a car accident as a teenager, a likely outcome of this event for the family would be a concretization of the roles of the family members. What could result is a need for the family to continue with the typical "leaving home" processes that adolescents and families must experience.
2. Provide education, support, and therapy.

At the time of accident, families of closed head injured experience:

- **a. Shock** - must express feelings and refocus on rehabilitation of person.

- **b. Denial** - tremendous involvement of families helps to deny the accident. Encourage them to work through this stage.

- **c. Hope** - goal oriented approach, where family members are involved in activities with their family member.

- **d. Protectiveness** - families "stuck" in the developmental cycle continue to protect their loved one as they did at earlier stages of their development; use education and intervention.

- **e. Expression of feelings** - the problems with families expressing feelings are a result of being "stuck" in the above areas. The problems of expressing feelings for the individual may be a result of an organic cause; a result of the C.H.I. as opposed to clinical repression.

- **f. Transitional coping** - changing issues as a family deals with regression to an earlier stage in their cycle of dealing with their "stuckedness"; how does one change, and the help that must accompany the problem.

- **g. Communication blocks** - lack of information sharing to families; lack of a total team approach.

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**Table 2**

**Head Trauma Recovery: Developmental Parallels and Family Reaction Toward Remolding**

<table>
<thead>
<tr>
<th>Developmental Stages</th>
<th>Head Trauma Recovery</th>
<th>Family Reaction (Remolding)</th>
<th>Family Response to Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Symbiosis.</strong></td>
<td>Total care, dependency.</td>
<td>May be comfortable with clear role as CARETAKER - arrange for basic needs, nurturance.</td>
<td>Seek information — learn to provide for needs. Possible resentment of staff know how vs. own sense of helplessness.</td>
</tr>
<tr>
<td><strong>Self-Other Differentiation.</strong></td>
<td>Aware of external stimulation.</td>
<td>Stimulation with selected items (people, pictures, etc.) excitement, optimism.</td>
<td>Competition for patient attention.</td>
</tr>
<tr>
<td><strong>Skills to meet own basic needs.</strong></td>
<td>Relearning: feed, toilet, dress, talk.</td>
<td>Developmental milestones applauded.</td>
<td>May resent staff ability to provide for needs, encourage separation and teach through therapy; diminishes family influence.</td>
</tr>
<tr>
<td><strong>Begin to separate (2's), walking, sense of self as separate, sense of mastery.</strong></td>
<td>Increased independence (walking) Actively attempting structured tasks.</td>
<td>Possible reluctance to &quot;letting go&quot; — need active participation in treatment.</td>
<td></td>
</tr>
<tr>
<td><strong>Independent problem solving, Identity formation.</strong></td>
<td>Denial of limitations. Desire to resume life activities. “Who am I now that I look/move/think differently?”</td>
<td>Effort to continue to reason for patient. Possible control over experiences allowed, friends seen.</td>
<td></td>
</tr>
<tr>
<td><strong>Intimacy.</strong></td>
<td>Physical attractiveness/ sexuality issues.</td>
<td>Increased efforts to influence patient’s thinking, behavior — frustrated, angry, disappointed.</td>
<td>Seek information/ feel abandoned as patient separates.</td>
</tr>
<tr>
<td><strong>Adolescent Separation.</strong></td>
<td>Define self as other than trauma. Object to patient, dependent role.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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3. Encourage a supportive, nurturing environment.

Families and individuals that suffer from a closed head injury, often need to use an outside self, as a way to begin to develop areas of their personality that were affected by the closed head injury. This not only applies for the individual that suffered from the accident, but also the family as they attempt to become "unstuck". The use of common goals, for both the individual and the family is recommended. A common goal is something that a person latches on to and easily understands and has relevance in the context of that person's family.

Closed head injured individuals must be able to "fit in" in a contributing, capable, and meaningful way. This may entail developing and exploring how this individual can fit into an extended network.

Not only will families have to help the individual regenerate a sense of being capable (a positive sense of self) in the family, but the family will also have to have this provided to them.

Analysis of functional level:

Working with the family is one aspect of helping an individual with a brain injury progress. A complete assessment must be done, using an interdisciplinary team approach.

1. An interdisciplinary team approach focuses on involving many individuals in assessing the client and family to determine the most effective, combined, functional approach to rehabilitation. An interdisciplinary approach does not partial out the client into specific discipline areas, such as speech therapy, occupational therapy, physical therapy, vocational involvement, and psychology. Rather, this approach focuses on the client and the skills that the client must master in order to become a significant contributing member of his family or environment. The family and rehabilitation specialists are critical members of this interdisciplinary team.

2. Focus on functional abilities and recommendations. It is critical to understand the cognitive, emotional and behavioral processes, that the client uses in attempting to fit back into his family and environment.

3. Motivation plays an incredibly large part in a rehabilitation program. The goals of the client and family must be goals that make sense to both the client and family. A broad goal is recommended, such as, returning home and then detailed, specific goals that would make this broad goal happen must be put in place. Individuals must feel good about themselves, for them to be motivated to change. Love, work, and play are three edicts that cannot be ignored.

Developmental Issues:

Depending on the age of the family member that has suffered a closed head injury, specific developmental issues exist.
1. Children. Depending on the age of the child, certain cognitive problems will not become obvious until they are older. There is a certain amount of central nervous system plasticity in young children. By using traditional understandings of cognitive development (Piaget, Partan, Maslow, Erickson and Kohlberg), appropriate therapeutic interventions can be designed.

It is believed that one million children sustain a brain injury in one year's time. Brain injury is the leading cause of death in children between the ages of one and 14 years.

2. Adolescents. At a critical stage in a child's development, a brain injury may affect the emerging sense of identity and lead to severe personality changes. A head injury sustained in adolescence carries with it issues particular to the cerebral trauma, personality changes, and problems with developmental transitions. Uncompromising idealism, patterns for independence, extreme risk taking and grandiose schemes and beliefs all are typical of adolescence and are accentuated by trauma.

Typically, adolescence is a time when an individual explores possibilities and breaks free of dependencies. There is a reality established based on goals of the individual. The individual looks at his accomplishments both interpersonally in establishing friends and also his own self worth by his abilities. Sexuality is an emerging dimension of the adolescence; this is typically a problem for those with a closed head injury.

3. Adults. It is reported that 85% of individuals who are married at the time of the accident end up receiving a divorce. The long lasting effect of a brain injury on a spouse and/or parents have to be addressed in specific ways.

- Providing support to the uninjured spouse during rehabilitation.
- Providing respite care.
- Addressing the changed role following an accident.
- Providing education for the children.
- Providing education to the affected spouse and/or parent.

This type of education and information may be as specific as addressing the cognitive problem areas: attention span (concentration), selective attention, delayed processing information, following directions, generalization, thought organization, flexibility of thought, judgement, problem solving, staying on task, sequencing, rate of performance, information retrieval, impulsivity, initiation, frustration tolerance, performance under stress, self-monitoring, deficit awareness, and endurance.

Providing this information will allow the family to better understand the cognitive deficits that are related to the closed head injury. This understanding will hopefully allow the family to begin to accept the changed individual as part of the family.

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