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Case study

The family systems approach to treating families of persons with brain injury: a potential collaboration between family therapist and brain injury professional

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Although brain injury may have a great impact on the family as a whole, family reactions are not adequately addressed in rehabilitative programmes. When they are, treatment tends to be approached from a family education and support perspective and not from a family therapy perspective. The aim of the following paper is to illustrate the important role that a family systems approach can play in treating families of individuals with brain injury. In particular, clinical examples taken from the literature will be presented that illustrate how family roles can be modified as a consequence of a brain injury, and the importance of re-establishing or re-distributing these roles. It will be argued that an intimate collaboration between family therapist and brain injury professional is essential, and that the ideal professional make-up of clinicians working with families of persons with brain injury are those well-versed in both brain injury rehabilitation and family therapy.

Introduction

Advances in recent medical technology have led to increased survival from brain injury, either due to traumatic brain injury (TBI), cerebral vascular accident (CVA) or surgical interventions (e.g. for brain tumours). Few people who sustain severe traumatic head injury escape without some degree of chronic cognitive impairment [1]. In addition, personality change, behavioural disorders and emotional disturbances may occur as a result of brain injury [2, 3]. Less documented in the research literature, however, is the impact that brain injury has upon the whole family [4].

Difficulties families face

Brooks *et al.* [5] found that the degree of stress on family members at both 1 and 5 years was reported to be related to the magnitude of behavioural, personality and affective change in the patient and that this family burden did not seem to decrease after 7 years [6]. Relationships with partners appear to be particularly vulnerable following brain injury [7]. The stresses families face after brain injury are immense and may originate from a number of sources. Personality change is an ongoing

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source of strain on the family. Failure to return to work results in loss of income. A TBI can also radically change the family's balance of individual and family needs. As the needs of one individual may take on greater importance, the needs of other individuals, or the needs of the family as a whole, may be overshadowed. Also, change in the family's organizational structure and communication patterns may be brought about by brain injury. For example, injury to a parent may result in the loss of a wage earner for the family, a source of emotional support and a decision-maker. The family structure must be modified to meet the demands of these new aspects, but because this change occurs suddenly, the family many times does not have time to adapt in this way. The end result is increased family strain resulting in elevated levels of depression, anxiety, denial, guilt, sleeplessness, and stress [7].

In general, studies that have investigated this issue conclude that brain injury has a great impact on the family as a whole. It is important that brain injury professionals take into account familial reactions to brain injury when considering appropriate treatment for a given patient.

Psychological interventions

Psychological interventions for families of persons with brain injury may involve family education and support and family therapy. Family education and support can be seen as providing family members with information concerning brain damage and provide family members with an opportunity to discuss feelings and concerns. Family therapy is a process designed to bring about behavioural change in a couple unit or family organization by psychological methods. Family therapy is distinct from family education and support in that it involves working toward actual change in the family's organization, structure or communication patterns. Each of these approaches have advantages in a brain injury context.

Family education and support

Family education and support is important for a number of reasons. For example, the physical, emotional and neuropsychological changes are complex and not easily comprehended. Family education and support sessions provide family members with an opportunity to discuss feelings and overcome the sense of isolation that many individuals feel when faced with trauma [8].

Finally, it is important to provide sound information to family members concerning brain injury in order to avoid misinterpretations. Without information regarding the consequences of brain injury, the family may attempt to explain the brain injured family member's behaviour in terms of what they are familiar with, many times resulting in misinterpretations [9]. For example, family members often have a tendency to personalize problematic behaviour or attribute problematic behaviour to motivational problems of the individual with brain injury. Families may believe that individuals with aphasia understand more than they actually do and may view aphasics as being uncooperative or hostile. Memory impairments in persons with brain injury may be misinterpreted as resistance, denial or confusion. Impairment in arousal may be seen as depression or lack of motivation [9].

One type of information important to communicate to family members is primary vs secondary reactions to a brain injury. The former may relate to physical and neuropsychological impairments directly related to the accident. Reactive

deficits can be seen as the individual's normal and understandable reactions to a traumatic event and its consequences for him/her. For example, angry outbursts by the brain injured individual may have their origins in neurological deficits that interfere with impulse control and self-regulation. However, the anger may also be partly or entirely rooted in psychological issues or family dynamics. These may include feelings of inadequacy on the part of the brain injured individual, competition for attention, feeling undermined by others and frustration related to the unrealistic expectations of other family members. The therapist working with these families must be alert to these differences and must be capable of clarifying whether symptoms presented by the patient are primary or secondary reactions to the brain injury. In general, primary consequences are more appropriately communicated to family members, whilst secondary reactions will provide the therapist with important information to be used in treatment.

Providing family members with this type of information may have a positive effect on the family. Knowing that problematic behaviour is physiological and not motivational may reduce or remove feelings of guilt in family members, especially in parents. Furthermore, family members' increased understanding of brain injury often facilitates their ability to cope with the trauma and with the injured member's behaviour, can help to minimize fear and stress, increase members' feelings of competency and control, increase parent cooperation with health workers and increase the chance that family members will assist in the rehabilitative process [2, 8]. Knowing that the behaviour is neurogenic will reassure some family members that, for example, the person with a brain injury is not having a nervous breakdown or is not 'going crazy'. Family members must be taught to recognize the neurogenic origins of the TBI behaviour and avoid personalizing it.

However, important to note is that behavioural and emotional problems in some cases may not be related *either* to primary or secondary aspects of the injury, but, rather, to life situations totally unrelated to the brain injury. For example, Kreutzer *et al.* [10] reported a case-study of a 50-year-old woman who, 1 month after termination of neuropsychological rehabilitation, requested therapy for depression and stress. The responsible clinician incorrectly assumed that emotional distress was solely related to the patient's disability and initially over-looked non-disability-related psychosocial issues, including normal life transitions. It turns out that the significant contributors to distress in this patient were her daughter's moving away to attend University and her mother's worsening health, all of which had nothing to do with the brain injury itself. Thus, the therapist must be attentive to those reactions that can be expected as a result of brain injury, those that cannot be directly attributed to brain injury but can be seen as normal reactions to the event, and finally reactions which are not related to the injury at all.

Family therapy

Family therapy is related to bringing about change in a couple or family unit by psychological methods. As will be discussed in more detail later, a TBI may provoke changes in the family's organization structure, communication patterns or balance of family needs.

Factors related to pre- and post-injury family functioning and the extent of the disability will determine whether family education and support or family therapy are the most appropriate treatment choice, or indeed if both may be needed [9]. There

is a need to clearly distinguish between these types of interventional approaches, as families may have differing needs at differing times in the recovery process.

Of the two interventional layers, family therapy is rarely mentioned in the brain injury treatment literature. In addition, when mentioned, these programmes are usually not related to general family therapy theory, research or practice. This lack of mention of family therapy in the literature cannot be related to the inappropriateness of such an interventional strategy for families of persons with brain injury. The interventional needs of families of individuals with brain injury need not be viewed as any different from the needs of family therapy clients in general if considering the important secondary reactions to the injury (including psychosocial and familial reactions) as normal and understandable reactions to a traumatic event by the patient and the family [11]. Thus, there is no reason why family therapeutic interventions cannot be incorporated into brain injury treatment schemes. A further consequence of this paucity is that, of the few models that help to explain and predict the family's response to brain injury, very few translate into effective treatment schemes. It is not enough to simply describe and predict the dynamic relationship between the individual with brain injury and the family, but that this must also provide the clinician with a sound theoretical and clinical approach to understanding and intervening in the family's adaptation process.

Although there may be general agreement that brain-injured individuals and their families face a wide range of difficulties in the months and years following their injuries, brain injury professionals are only now beginning to recognize that working with the brain injured individual alone may be insufficient [12–14]. The reasons why brain injury rehabilitative practice has not managed to adequately integrate family therapy into its scheme are probably both numerous and multi-factorial and, therefore, beyond the scope of this paper. One possibility is that neither professional (i.e. the brain injury professional and the family therapist) particularly understands what the other is doing. Given the diverse set of skills and intellectual histories of these two disciplines, it is not surprising there has been comparatively little interface between neuropsychology and family therapy, both theoretically and clinically. Rarely, if ever, has one seen contributions in the literature that reflect the integrative views of people conversant with both disciplines.

Therefore, as there is a paucity of research concerning family therapy, and in light of its important role in the treatment of families with brain injury, this paper will not address family education and support but, rather, will exclusively discuss family therapy. Also, this paper will focus mainly on TBI as it is the most common cause of brain damage. Finally, there will be a focus on family therapy from a family systems perspective. Used in the widest sense of the term, the family systems approach views the family as a system or group as a whole, with definite structures or organizational patterns, as opposed to exclusively taking into account the individual [15]. In the brain injury context, this perspective differs from other approaches in that the entire family (rather than the individual family member, which has been the case in the majority of brain injury rehabilitative schemes) becomes the focus of the treatment. Furthermore, treatment goals and the treatment itself involve the family as a whole [8]. Reasons for taking into account this approach is that it is the one form that has been documented quite extensively in the literature, and it is this form that provides clinicians with concrete, effective intervention strategies. However, other intervention strategies will be presented, albeit only as propositions, as they have not been used in a clinical setting. In

particular, clinical cases are presented that illustrate how family roles can be modified as a consequence of a brain injury and, furthermore, the importance of re-establishing or modifying these roles, depending on the situation. A major objective of this paper is to bring the family therapist and brain injury professional closer together through working with this difficult and complex client-group. Thus, the professional working with families of an individual with brain injury must be highly competent, that is, well-versed in and well-experienced with both brain injury *and* family therapy.

Approaches to family therapy

The particular approach with a given family will depend upon several factors including the constellation of the family system, its adaptability and flexibility in accommodating the impact of the brain injury on family functioning and the physical and emotional resources of its members [16]. The trauma and the events that follow it may cause emotional conflicts to the surface that impede a family's ability to make decisions in treatment and to participate in treatment. In these circumstances, it is appropriate to set resolution of these conflicts as the goal and focus of psychological treatment. The resolution of such emotional conflicts may be vital to the course of rehabilitation treatment. However, the family must be able to tolerate such a focus of treatment before it has begun [7].

A family systems approach

Recently, a small number of studies have approached family therapy with the brain injured individual from a structural family therapy approach [8, 13, 17]. One key task of family therapy with families of persons with brain injury is to ease the transition of the patient into his new role within the family, and facilitate adjustment to changed roles on the part of the other family members [18]. In light of this, the importance of understanding family structure in order to plan and implement psychological treatment seems particularly important [15]. The rationale of structural interventions in psychological treatment is that the family has a certain structure that has developed in response to the personalities of the individuals in the family, and to the environment in which the family functions. It follows, therefore, that changes in the environment may cause a change in the structure of the family. Structural family therapy postulates that transactional patterns depend on the way people experience reality. Therefore, to change the way the family members look at reality requires the development of new ways of interacting in the family [19]. Although parents and children are part of the same family, they do not have the same responsibilities and privileges, nor is communication evenly distributed across family members. The concept of generational boundaries refers to the differences in responsibilities, role and communication patterns between members of different generations within a family. This is characteristic of most families, and the clinician needs to be aware of the family hierarchy and respect it [20].

Role changes

Related to family structure and hierarchy are family members' roles. A role can be defined as an integrated and socially determined set of beliefs, values and expecta-

tions that define how one ought to behave [8]. The importance of understanding roles cannot be overestimated. Society has expectations for familial roles, especially those relating to parental and spousal obligations. Family members also have expectations concerning responsibilities relating to housekeeping, financial management, child rearing, home maintenance and earning income. In a general sense, the effects that brain injury may have on role changes may necessitate either a re-establishment of pre-injury roles, or a re-distribution of post-injury roles.

Re-establishment of pre-injury roles

One of the most obvious family sub-systems is the sub-system of parents and of children. Communication in the family may be disrupted if the balance of power between these sub-systems in not equitable. In order to redress this balance, the therapist following a structural intervention may ally with one of the sub-systems during a treatment session [15]. In doing so, he lends support and power to the sub-system and forces the others in the family to consider that sub-system's point of view in family decisions. A dramatic change in the family, such as caused by a TBI to a family member, can alter the family structure in such a way as to affect boundaries between generations. This is particularly the case with an injury to a parent of young children. The individual with brain injury is likely to show immature or dependent behaviours as the result of the injury [3]. At the same time, the non-injured spouse may rely on children to carry on some of the tasks that the person with the brain injury previously performed. Children may, deliberately or indirectly, become involved in the care of the injured parent. Communication patterns between all members of the family change. In the case of the severely injured returning to live with the family, conflicts may arise between the survivor's expectations and the new family structure.

Case example 1

Maitz and Satz [8] presented a 31-year-old married man and father of four children. Among other things, the brain injury left him with memory deficits and an explosive temper. On returning home, he realized that he no longer had the same authority over his children as before the accident. In addition, his wife contributed to the problem by failing to support him when he attempted to correct the children. Treatment intervention focused on strengthening the parental sub-system. Sessions were structured so that the parents were the principal discussants regarding disciplinary issues. In particular, intervention involved helping to re-establish the father's role as a parent. The patient was encouraged to resume parenting responsibilities while insisting that his wife support her husband in front of the children, even if she did not necessarily agree with his solution to a problem. If the wife had concerns about specific parenting styles in his husband, she could then discuss these concerns during therapy without the children present. From a family systems perspective, the specific parenting techniques were secondary to the need to present a united front to the children. By supporting generational boundaries, the therapist re-established the boundaries between parents and children in such a way as to allow parents to have a relationship together, to allow the survivor to relate to his or her children as a parent, and to allow the parents to make decisions about child-care together.

A severe TBI suddenly and dramatically compromises family members' ability to enact their roles and disrupts the balance of power and authority in the family system. Cognitive deficits such as memory impairment may affect a patient's everyday functioning in various ways, which furthermore may depend on the context. For example, while in a work-setting these deficits may effect performance in meeting situations or render the person less effective, in family contexts memory deficits may prevent the patient from performing simultaneous tasks or may cause the patient to easily forget information which may jeopardize the parent's authoritative role. A parent with physical and intellectual impairment, as was the case in the above-mentioned example, may find that his or her power has been usurped by the other parent in that s/he no longer has the authority to make family decisions or discipline his or her children. Indeed, the children may actually become more powerful than the parent with a serious brain injury.

Case example 2

Alliance with the person with brain injury may be necessary, as in the case of a disrupted parent-child sub-system. For example, Larøi [17] presented an individual with brain injury (22 years old), seen by a therapist because of difficulty relating to his parents and to others. When meeting with the family as a whole, the therapist observed that the parents, particularly the mother, were the most active, but that when asked a question by the therapist, the son spoke in brief phrases and did not maintain eye contact. In individual sessions, he was observed to speak more but tended to be slow in his verbalizations and to become easily distracted when making his points. The therapist felt that some of the problems that the son had in relating to his parents were the combination of his cognitive difficulties in expressing himself and possible difficulties with behaviour control as the result of his injury, and his parents' unwillingness to modify their level of communication with him. By not changing their level of communication with him, the parents in effect were denying the changes that had occurred in their son. The therapist structured treatment sessions by allying with the son in conversations with the parents. This involved encouraging the son to speak in full sentences, allowing him to complete his thoughts and amplifying or inquiring about ambiguities in his expressions. The therapist attempted to balance this by encouraging the son to speak in more concrete terms so that his parents would be better able to understand his points [21]. The therapist allies with the survivor, or any other sub-system of family members, by listening carefully to what the survivor has to say and allowing the survivor the opportunity to be heard by others. By doing so, the therapist gives credibility, confidence and support to what the survivor is saying. The therapist may seek to clarify or amplify what the survivor is saying by pointing out to the other family members the effect of their behaviour on the survivor and offering suggestions on ways in which they are better able to manage the survivor in order to meet their needs. The therapist's comments are designed to point out to the family their interdependence and how the behaviour of one family member affects that of other family members. This may help in the family functioning after treatment. Also, alliances with the survivor or other sub-systems are not permanent in the psychological treatment sessions. The therapist does not want to over centralize his role with the family, but rather to allow the family's own patterns of handling the problem to be expressed [15].

In this example, the problems that the son had in relating to his parents were related both to impairments directly related to the brain injury (e.g. cognitive difficulties in expressing himself, behaviour control, attentional deficits) and secondary effects the injury had on family dynamics (e.g. parents' unwillingness to modify their level of communication with him). Both aspects were explored in treatment sessions. In order to counter the effects of the cognitive deficits on the patient's communication and behaviour, sessions were structured to allow the patient to express himself more clearly and easily. Denial was the primary secondary reaction of the family, rendering impossible any compensation for the effects of the injury on the patient. Thus, an important aspect of dealing with changes in family dynamics was to help the parents become aware of changes in their child and, furthermore, how these changes may have effected their own interactions with the child and family. Indeed, no change in family dynamics after a brain injury is by no means a good sign, especially in the presence of wide-reaching and serious cognitive deficits. Inevitably, these deficits will affect the family in some way or another.

Post-injury re-distribution of roles

In the above-mentioned clinical examples, there was a strengthening or re-establishment of pre-injury family roles and communication patterns. However, in many cases, a redistribution of family roles is often necessary in order to compensate for functional decline after brain injury. An understanding of the roles, role relationships and the distribution of power and authority within the family is critical to understanding the family's response to the trauma [8].

Case example 3

Maitz and Sachs [8] present the case of a 37-tear old divorced mother of two teenage sons. Although the patient was able to return to work on a part-time basis, she had difficulty resuming many of her household tasks and, in spite of limited financial resources, she would often take her children to a restaurant instead of making food, would buy them new clothes instead of doing the laundry, etc. In this case, the therapist's role was to help the patient recognize that she had not made major post-injury changes in her expectations, especially regarding household chores. In this context, the therapist and the patient developed a written list of all of her roles and the associated responsibilities. When clearly written down and discussed with the therapist, the patient recognized the magnitude of her combined roles and the difficulty of trying to fulfil all of them while still in the process of recovery. The therapist also met with the patient's children and explained that their mother had sustained a very significant injury and could no longer independently manage all of the household chores. Following this, the therapist and the children went to work to redefine family roles and responsibilities (e.g. her sons willingly agreed to temporarily help with the shopping, cooking and cleaning in exchange for an allowance).

In this example, the injury left critical family functions largely unmet. Furthermore, if the family roles were not re-distributed early enough, the very existence of the family system could have been threatened, as well as the physical and psychological well-being of individual family members. Indeed, risk of this

happening was even greater in this case, considering that the patient was a single mother. Also, although the patient acknowledged her injury intellectually (by working on a part-time basis), the effects the brain injury had on other aspects such as household chores were not acknowledged by the patient.

Case example 4

Maitz and Sachs [8] present the case of a 47-year-old Hispanic man and father of three children who was the traditional patriarchal head of his family. Because his wife had never learned to speak English, he managed all of the family finances and took charge of any activities that involved interaction with the community. However, after severe brain injury, it was clear that he could not take on many of these responsibilities. As a result, the patient became despondent and ashamed that he could no longer 'take care of' his family. In addition, after the injury, a number of incidents took place where he became enraged and was aggressive, although he had never been aggressive before the accident. This was clearly related to poor impulse control and reduced self-control as a result of frontal lobe damage. However, the therapist also attributed this behaviour as related to the patient's loss of position and power in his family. The therapist met with the family in order to help them redefine the father's role in the family. This involved identifying certain tasks that he could do (but that he had not done before the injury), as well as identifying tasks that he could resume as his recovery progressed. Family members were encouraged not to be over-protective, as this interfered with the patient's need to feel useful and productive. Also, by identifying tasks that he could resume as his recovery progressed, the patient was given some hope and motivation for treatment. Here, an important aspect of the intervention concerned assessing the family's ability to maintain its role after the injury. There is oftentimes little time for the family to redefine their roles. Thus, a major part of the therapist's work is to identify the most crucial roles that need immediate attention, those that do not have to be addressed immediately and those that can be discarded. Here, it can be one of the two that change, but, as in the example above, when one of the parent's gender role is changed or modified, the other partner is usually obliged to follow suit, and accept to modify their previous gender role in the family in order to account for changes in the family structure as a result of the brain injury.

This case also demonstrates the importance of understanding both brain injury and family dynamics. Because he had no history of such behaviour before the accident, and because he sustained frontal lobe damage, the aggressive episodes and loss of self-control were clearly related to the brain injury. However, the events were also precipitated by a marked change in the family system. Thus, this behaviour could also be seen as a reaction to the patient's loss of position and power in his family. This even more so as the family seemed to uphold traditional views concerning family roles and that the patient saw himself as the patriarchal head of the family. Re-distributing and realigning the family roles reduced the stress in the family and fostered a sense of equilibrium. This therapeutic work also helped the patient redefine his role in the family.

The therapist must also be cognisant of the fact that families differ in terms of their expectations for family members in typical roles (e.g. husband and wife) and their ability to change and develop a different role structure. For example, in some families the husband is expected to be the sole generator of income. In other

families, the husband is expected to be the primary generator of income for necessities, whilst the wife is expected only to earn 'extra' money for things the family could not ordinarily afford. In yet other families, both spouses are expected to be full-time wage earners. Also, it is important that the therapist considers the family's cultural beliefs and expectations relating to gender roles and responsibilities [10, 22]. For example, in certain cultures, beliefs about gender roles are steeped in tradition and not easily altered. Thus, in this context, it may not be appropriate that other family members (especially spouses) take on new gender roles and responsibilities. Here, alternative solutions must be found that may involve extended family members, who in certain cultures are more willing to provide long-term support in times of crisis compared to Western family systems.

Case example 5

Kreutzer *et al.* [10] present the case of a 38-year-old Peruvian construction worker with three children who had immigrated to the US 7 years prior to presentation. After 2 months in a rehabilitative centre, he was discharged home to the care of his wife, a full-time homemaker. Although he was making gains in rehabilitation, he was unable to work, and the couple expressed anxiety concerning financial obligations and uncertainty regarding the patient's future employment prospects in the couple's weekly psychotherapy sessions. Since the accident, it was the patient's brothers that had provided for the majority of the family's financial needs. Suggestions made by the therapist that financial aid from the extended family members could not continue for much longer, that the patient's job prospects were highly uncertain and, for these reasons, that the wife should consider finding a job were rejected by the couple. To this, the wife replied: 'I must be there for the children', and the husband replied angrily: 'That is not a possibility. I will return to work. In my country, a man who cannot provide for his family is not a real man'.

By not acknowledging the family's cultural beliefs and expectations relating to gender roles and responsibilities, the therapist's credibility and diminished rapport was impaired, resulting in the couple feeling angry and misunderstood. The therapist failed to recognize two essential points. First, in many cultures, beliefs about gender roles are steeped in tradition and are not easily altered. Secondly, in many cultures, extended family members are very willing to provide long-term support in times of crisis. Thus, therapists should inquire about the family's expectations regarding the roles and responsibilities of different family members, including extended family members. Following this, sessions should consist of working through the problem-solving process by asking clients to generate acceptable solutions consistent with their cultural beliefs. The therapist can then guide clients in evaluating the advantages and disadvantages of each solution, ideally reaching a mutually acceptable decision.

Other approaches

A theoretical rigidity should be avoided in terms of family therapy as other forms of family therapy can and should be utilised [13]. Furthermore, since brain injury may reveal a varied repertoire of psychological consequences and since the potential influences on family adjustment are complex and varied, it is important that the clinician have a wide and varied therapeutic arsenal at his disposal as the final

therapeutic approach taken will necessarily have to be individualized. Other family therapeutic strategies can be utilised and will be presented. However, important to note is that these strategies have not yet been tested either clinically nor empirically in the literature.

For example, Selvini *et al.*'s [23] approach, which looks at changes in the family relationship(s) before and after a precise event and looks at how each family member reacts to a specific symptom or problem, can be fruitful in working with families with a brain-injured individual. Not only is the traumatic event such a precise event, but this approach can also help clear up the important issue of pre- and post-morbid family functioning. It is important for the therapist to be able to differentiate between the contribution of pre-existing and trauma-related emotional stressors in developing an effective treatment plan. In this case, where family dynamics and roles were ineffective or maladaptive prior to the injury, the injury can be especially devastating to the family unit [24]. Families with a brain injured individual may develop an overriding pessimistic view of the patient's future prospects after they have begun to appreciate the extent the brain injury has had on the family member's functioning [7]. It can, therefore, prove advantageous to reflect upon alternative perspectives or versions, other than those presented by the family [25]. This is both in order to escape this overriding pessimism and also to find alternative solutions to the many problems the family faces.

Discussion

The problems that brain injured individuals and families have can prove very distressing and require patients and their families to make major adjustments in their life-styles and expectations. The need for therapy in such circumstances is often apparent. In this review, a family systems perspective was presented, which provides the clinician with a sound theoretical and clinical approach to understanding and intervening in the family's adaptation process. In particular, case examples were presented illustrating role changes in these families.

Familial reactions to brain injury should be taken seriously by professionals from the moment that the brain injury occurs. Even in acute stages of the brain injury, professionals should attempt to contemplate the effects that the brain injury may have on the family system. If possible, the professional may also consider providing the family with concrete examples of where family roles may have to be re-established and/or re-distributed as the individual with brain injury returns to the home setting. This will help make the transition from inpatient to home setting as smooth as possible. An examination of familial reactions at the acute/inpatient stage is important as it helps prepare the family for changes that are likely to arise in the family structure when the patient returns. It may also reduce the risk of the development of dysfunctional family patterns. It is in the outpatient/home setting where actual family therapy interventions may take place. Here, family therapy sessions may provide the opportunity to implement changes in the family system that were deemed important already at the acute/inpatient stage. Family therapy sessions in the post-treatment phase may also assist the family in observing and reporting any disruptions in the family system. Finally, family therapy in the outpatient/home setting will provide the opportunity to make early changes in the family system as a result of disruptions in the family system. Thus, although the post-treatment setting is an extremely important context for the implementation of

family therapy intervention (as it is here where eventual problems as well as solutions will occur), examination of familial reactions and possible family structure changes as a result of this at the acute/inpatient stage will also prove to be important as both a preventative measure and in order to commence family therapy interventions as early and effectively as possible.

Due to the complexity of conducting family therapy with families of persons with brain injury, family therapy with this group should be undertaken only by a competent professional who is well-versed and experienced in both brain injury and family therapy. One common theme in various case examples has been the differentiation between primary vs secondary reactions to a brain injury. The therapist must be able to decide which reactions 'make neuropsychological sense', that is between those reactions can be expected as a result of brain injury, those that cannot be directly attributed brain injury but can be seen as normal reactions to the event and, finally, reactions which are not related to the injury at all. Not only this, but the therapist must also possess the ability to utilise this information in a treatment context. Furthermore, treatment of brain injury families may include a combination of both those typically found in brain injury rehabilitation practice (e.g. cognitive rehabilitation) and non-typical strategies such as those described in this paper. Certain writers have stressed how aspects related to cognitive rehabilitation may serve to enhance therapeutic endeavours in brain injury populations [26]. This may include, for example, cognitive rehabilitation's ability to 'turn on plasticity', facilitate the client's ability to think about their own thinking and increase the therapist's ability to empathize with the client, especially in terms of the client's neuropsychological and functional impairment. The therapist may, therefore, be required to carry out both types of interventional strategies. Consequently, albeit contrary to what has been proposed in the literature, it seems evident that it is not enough, for example, for the intervening therapist to be familiar with 'the basic demographics and symptoms of brain injury' [27]. Nor is it appropriate for non-specialist professionals such as general practitioners, nurse clinicians, pastoral counsellors, rehabilitation professionals or social workers to work with such families [14].

In general, this paper has pointed to the potential of a family systems approach, but also to the clinical and therapeutic challenges that working with families of individuals with brain injury may present. The importance of a close collaboration between the family therapist and the brain injury professional has been stressed. Furthermore, although there seems to be a lack of interface between neuropsychology and family therapy on a theoretical level, on a practical and clinical level there is room for collaboration between the two disciplines. Families of persons with brain injury provide both brain injury professional and family therapist alike with an interesting, yet highly challenging client-group.

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