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The Use of Emotionally-focused Couples Therapy (EFT) for Survivors of Acquired Brain Injury With Social Cognition and Executive Functioning Impairments, and Their Partners: a Case Series Analysis

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Abstract

A breakdown of intimacy and familiarity in close romantic relationships is common and characteristic of life following acquired brain injury (ABI), yet is not commonly addressed in neuro-rehabilitation services. Recent conceptual, qualitative, and quantitative studies highlight the role of emotional and intentional misattunement in relationship breakdown and associated psychological distress of both partners, alongside the emotional withdrawal and/or critical responses of the non-injured partner. Emotionally-focused couples therapy (EFT) is an evidenced-based couples therapy that is widely used around the world for similar themes in couples' relationships unaffected by brain injury. Its use in ABI has only been reported anecdotally to date. This paper presents four couples' cases post-ABI, with both qualitative therapy process description and single case quantitative pre-post therapy comparison on a range of relationship and individual psychological distress measures. Every survivor of ABI was eighteen months post-injury or more, and identified to have an enduring mixture of social cognition and executive functioning impairments upon neuropsychological assessment, among other difficulties. The couples are presented as three therapeutic successes, contrasted with a case characterised by mixed outcomes. The applications, contributions, and limitations of EFT in brain injury services is considered.

Key words: Brain injury; stroke; social cognition; executive functioning; relationships; couples therapy.

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Introduction

Characterising intimate relationships following brain injury

Distress and disconnection commonly characterises intimate relationships following acquired brain injury (ABI). This was initially highlighted by Rosenbaum and Najenson (1976) as unique for couples following neurological injuries, in comparison with other conditions (supported by Peters, Stambrook, Moore, & Esses, 1990). However, subsequent efforts to characterise what is unique to these relationships have yielded mixed and contradictory findings. Some studies of relationship outcomes (divorce, separation, remaining together) have failed to find differences between ABI samples and both other long-term conditions (Bracy & Douglas, 2005; Frank, Haut, Smick, Haut, & Chaney, 1990; Kreutzer et al., 1998; Testa, Malec, Moessner, & Browt, 2006) and national population trends for such outcomes (Kreutzer, Marwitz, Hsu, Williams, & Riddick, 2007; Wood & Yurdakul, 1997). Variability in outcomes is noted across ABI couples studies, however, irrespective of sample size and methodology. Godwin, Kreutzer, Arango-Lasprilla, and Lehan (2011) highlight a range of identified separation and divorce rates, from fifteen to seventy-eight per cent.

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Investigations focused on other dimensions of experience and functioning in those couples who do remain together post-injury, do converge to highlight high levels of marital dissatisfaction, dyadic maladjustment, sexual dysfunction, and progressive social isolation for both partners (e.g., Elsass & Kinsella, 1987; Peters, Stambrook, Moore, & Esses, 1990; Ponsford, 2003). Outcomes for non-injured partners include increased burden, strain, stress, and clinical anxiety and depression (Perlesz, Kinsella, & Crowe, 2000; Thomsen, 1974). Many of these outcomes have been shown to increase over time post-injury (for comprehensive reviews of this literature, see Bowen, Yeates, & Palmer, 2010; Godwin, Kreutzer, Arango-Lasprilla, & Lehan, 2011).

Intersubjective experience in relationships

Moving away from standardised questionnaire measures to subjective and experiential accounts of relationships and intimacy following ABI, the depth of relational disconnection and disturbance is revealed. Predominantly female partners disclose their feelings of "living with a monster", analogous to living with Jekyll and Hyde (Wood, 2005). Others describe being "married to a stranger" (Wood, 2005), "married without a husband" (Mauss-Clum & Ryan, 1981), wanting their real husband back (Wood, 2005). Intimacy "feels wrong" to some partners (Gosling & Oddy, 1999), with the emotional side feeling "badly damaged" (Oddy, 2001),

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and some partners report a dislike of physical contact (Rosenbaum & Najenson, 1976). Connecting these quotes are themes of both an absence of something once familiar and a presence of something alien and intrusive into the relationship (Yeates, Whitehouse-Hart, & Balfour, in press).

Two recent qualitative studies of intimacy following ABI have tried to take these isolated quotes further and explore these issues in more depth. Gill, Sander, Robins, Mazzei, and Struchen (2011) used a thematic analysis to identify both barriers to intimacy in couple relationships following traumatic brain injury (TBI) (physical, cognitive, and emotional changes, emotional reactions to changes, altered personhood of the survivor, sexual strains and incompatibilities, role changes/conflicts, communication difficulties, family factors, isolation) and dimensions of relationship strength that supported the quality and longevity of the relationship post-injury (unconditional, unselfish love, being there, commitment to staying and working on the relationship, being understanding, pre-injury relationship foundation, gratitude for survival, spending time together/friendship, social support, family bonds, spirituality, prior experience, coping skills).

Yeates, Whitehouse-Hart, and Balfour (in press) focused on elements that were disturbing and hard for respondents to articulate. Post-injury changes in survivor interpersonal functioning were experienced as intrusive for both partners and survivors, who also reported themes of lost familiarity, distance, and alienation within the relationship. Judgements of personality change in the other partner were made both by relatives and survivors within these experiences, highlighting disturbed affective recognition of the other as a critical factor in relationships post-injury. This was both bidirectional and oscillating in quality, with moments of old selves re-appearing interspersed by more common moments of not knowing each other and each other's intentions. The non-injured partners' experiences were private: the disturbing extent of these changes post-injury were not witnessed to the same degree by friends or other family members. Both pre-injury vulnerabilities in the relationship and earlier experiences of loss and abandonment for non-injured partners were seen to be re-activated and exacerbated by a common post-injury dimension of misattunement in the relationship. Emotions and intentions were frequently not recognised or responded to within the relationship, and things did not feel right fundamentally for either survivors or partners, exemplified by one couple; "it's like there's a piece of grit in our relationship, wearing away our hearts from the inside."

Staying attuned to the ebb and flow of evolving interpersonal sequences, be they conversation or making love, has been shown to be undermined by difficulties in attentional switching ("there can't be any unplanned time sharing with each other. I have to mentally know when

it's going to happen so I can prepare because I can't switch gears anymore," Gill, Sander, Robins, Mazzei, and Struchen., 2011, p. 60) and interoception ("when we're kissing and cuddling I feel quite strange I guess I feel that *way* when I get *lost* in umm . . . the development of our arousal . . . it's a weird sensation, I suppose ummm, my stomach as well as anything else around my stomach, and around my heart areas it doesn't feel right." Yeates, Whitehouse-Hart, & Balfour, in press).

Personality change, neuropsychology, and relational processes

Q3 Much has been written about personality change following brain injury (see Yeates, Gracey, & Collicutt-McGrath, 2008) but the relational dimension of these judgements has been neglected. The clinical literature rarely discusses the possibility of simultaneous and two-way personality change for couples, as a product of a breakdown in a relational process (exceptions to this are provided by both a professional and spouse of ABI survivor, Feigelson, 1993, and Crimmins, 2000, respectively). In the stroke literature, Shadden (2005) describes aphasia post-stroke as "identity theft" for both survivor and non-injured partner. Similarly, the oscillating dynamic of familiar self and stranger as experienced by partners is not explored within the literature, despite the distress caused by this dynamic nature ("when I feel the old him is back in the room, I know it will not last long," Yeates, Whitehouse-Hart, & Balfour, in press).

The person who is making personality change judgements of the survivor is most commonly the partner. They are often referring to an essential sense that the person whom they used to know (and be known by) so well is no longer recognisable in that way, the interpersonal connection between them has been lost. The particular influences of the brain injury in this phenomenon has come to be more fully elucidated and understood, as those acquired neuropsychological impairments affecting interpersonal connection and social relationships have been increasingly identified.

Q4 This literature has been reviewed by Yeates (in press) who highlights the role of both traditionally defined cognitive impairments (attention, memory, language, and particularly executive functioning deficits) and social cognition deficits (mentalizing, emotional recognition, autonomic responsivity, and social responding/decision-making congruent with social and moral norms) in over-determining forms of misattunement in couple relationships. Such misattunement can be misidentification of the other's intentions and emotional states, confusion of self and other perspective, failed embodied resonance to respond empathically to another's emotional communication, a lack of initiation to either

communicate a point of view or attend and respond to another in distress (also compromised by problem-solving difficulties). Affect dysregulation is also a significant dimension (either too much or too little emotion in a given interpersonal sequence), along with responses to another's distress that may be hurtful, inappropriate, selfish, and/or exacerbating. Such forms of misattunement and resultant distress in the other call for increased social cognition skills to repair, but these are not present. While some survivors of brain injury are also presented in experimental settings as lacking empathy and autonomic responsivity to social cues in a fixed, absolute ways (e.g., Bechara, Damasio, Damasio, & Anderson, 1994; Blair & Cipolotti, 2000), other tentative evidence suggests that for other survivors such responses are not absent, but can only be triggered at a higher threshold following injury, and so open to therapeutic manipulation (Evans, Bowman, & Turnbull., 2005; Yeates, in press).

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Negative interactional patterns

Both quantitative and qualitative data point to the possible interrelationship between neuropsychological impairments and negative interpersonal processes in couples relationships. Using a correlational cross-sectional design and bootstrapping analysis, Yeates and colleagues (2012; Yeates, unpublished) studied seventy couples where one partner has an acquired brain injury and found a range of predictive relationships between neuropsychological impairments and relationship outcomes. These included a direct positive relationship between survivors' emotion recognition ability and partners' rated interconnectedness in the relationship. Alongside this there was an indirect predictive path: a combination of survivors' ability in mentalizing (correctly inferring the mental perspectives and intentions of others) and detection of violations to social norms (e.g., a stranger touching a woman's baby without her knowledge) inversely predicted the level of strain in burden experienced by non-injured partners, which in turn directly predicted their ratings of overall relationship satisfaction and physical intimacy in the relationship.

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This path also predicted the tendency for the non-injured partner to be engaged in a mixture of critical or emotionally withdrawing responses in the relationship. This data triangulates with the qualitative findings of Yeates, Whitehouse-Hart, and Balfour (in press) who outlined a vicious cycle of interpersonal misattunement in twenty couples where the survivor demonstrated social cognition deficits on testing. Increased criticism and/or emotional disconnection by non-injured partners over time was acknowledged, as they could not cope with emotional rejection and abandonment in the face of the survivor's struggle to attune to their needs. The disconnection evolved as a coping strategy to prevent the

more acute emotional distress in attempted but failed moves to re-connect, it being safer not to try in the end. Unfortunately this trend created a vicious cycle where it became harder for a survivor with such difficulties to attune to/be cued by a withdrawn or criticising partner, or formulate and implement a helping/reconciliatory response, thereby perpetuating the interactive pattern. This kind of sequence, requiring verification in future studies, may be one parameter for the oscillation of personality change judgments described above. In a similar vein, Stiell and Gailey (2011) note the presence of "withdraw–withdraw" cycles between partners as time progresses following post-stroke aphasia. The survivor is in an "imposed withdrawn" position as a result of communication difficulties, while their partner has also progressively moved into a withdrawn position over time, under conditions of attachment threat, which may involve the non-use of communication-facilitation strategies despite knowledge of such.

Candidates for intervention?

Given the profound nature of these experiences and difficulties, it is surprising that these issues are not priorities for brain injury services and that couples interventions are not routinely offered. These remain the "elephants in the room" in rehabilitation conversations. A common experience for services can be a mixture of hopelessness at the enduring and overwhelming nature of such difficulties, together with a sense of impotence at not possessing the therapeutic skills to work with these issues. Couples may be referred to generic couple therapy agencies, who can feel in parallel that they do not possess the brain-injury and neuropsychological knowledge to make sense of some of the issues unique to post-injury relational life.

In considering the literature above, these issues can be conceived in neuropsychological and social-relational terms. With regards to the former, the field of social neuroscience has recently evolved concepts relevant to couples' experiences post-injury so that links between neurological damage and relationships can be conceptualised (Yeates, in press). Intervention strategies based on this same literature, however, have their limitations in their extension to couples work. The rehabilitation of executive functioning difficulties has rarely informed couples work. Social cognition deficits have been addressed via skills-training approaches (e.g., packages of mentalizing, emotion-recognition and social behavioural skills, e.g., Boake et al., 1986; McDonald et al., 2008). These very deliberate, explicit learning approaches may have value in structured, formal environments (e.g., in a work role) but may be insufficient for a shared re-experiencing of profound romantic emotional

Q7 connection. This has been shown by Bartels and Zeki (2000) to be characterised by a deactivation of cortical mentalizing areas alongside activation of midbrain attachment-focused neural systems that are highly automatic in nature.

Inspired by contemporary theories of mirror neurons and their embodied, automatic operationalisation, McDonald, Bornhofen, and Hunt (2009) attempted to improve emotion-recognition ability in survivors by instructing them to approximate their facial musculature to resemble the cue visual image of a certain emotional expression (in an effort to provide a visceral feedback mechanism). This approach was not found to be successful, nor was an alternative attention-focussing strategy. More recently, this group noted that increased attention to emotional stimuli did affect autonomic arousal of survivors, but all of this was independent from emotion recognition ability (McDonald et al., 2011). In addition to methodological limitations of the studies, these approaches may have also placed too much emphasis on an intentional, deliberate act of embodied mimicry and social comprehension. In terms of neuropsychological needs for couple work, developing survivor abilities in identifying and responding to intentional and emotional states of others may be dependent in turn on finding ways to stimulate and regulate autonomic arousal of survivors, conducive to felt, attuned empathic responses to close others (Yeates, in press; Yeates et al., 2012).

Q4 In contrast there has been a long but insufficiently-developed tradition of systemic and family therapy work within neuro-rehabilitation, focusing on relationships and communication between survivors and relatives (for overview see Bowen, Yeates, & Palmer, 2010; Yeates, 2009). This has explored the complexity of such, situated within wider social processes, meanings, and contexts. These ideas have evolved a range of useful strategies to work with brain injury-specific issues (for examples, see Bowen, Yeates & Palmer, 2010) and the value of its orientation is in its focus on relationships between people, allowing both survivors and relatives to approach an understanding of what happens differently between them since the injury, without an exclusionary barrier of personal blame.

However, it is the first author's experience that while these approaches are fantastic in improving communication, reducing psychological distress, and getting groups of people "unstuck", they do not reliably help people fundamentally deepen their emotional connection with one another, and rarely to the point of "falling back in love again". They have much to offer in the relational understanding and therapeutic response to problems in empathy, but arguably do not fully exploit the immediate, intimate emotional dimension between people. Sexual therapy and education approaches are a vital and much underused component of couples work (e.g., Masters & Johnson, 1976; Simpson, 2001), but there

is also a concurrent need to respond to the breakdown of broader psychological intimacy and intersubjective safety that may influence sexual relations, that is, make a possible sexual encounter feel comfortable and emotionally safe (Bowen, Yeates, & Palmer, 2010).

Q4 Based on the research studies mentioned above, Yeates (in press; Yeates et al., 2012) has suggested the essential components for a couples' intervention in response to the aforementioned difficulties are:

(i) clarification of each partner's intentions and perspectives
(ii) the orchestration of socio-emotional attunement (intentional or affective) between the couples
(iii) increasing emotional intensity of the non-injured partner's emotional expression, sufficient to trigger the autonomic responsivity in the survivor conducive to an empathic response, while also regulating affect in the interactions between the couple
(iv) supporting the non-injured partner's distress and their move out of a critical/and or withdrawn position
(v) the systemic focus on the relationship between partners, all to enhance connection and intimacy.

A strong experiential impression for the first author when starting couples work in ABI services, was of an interpersonal "knot" for many couples, where the possibility of enhanced connection was present, perhaps glimpsed rarely, but unreliably accessed and available to the couple, leading to frustration, confusion, and disappointment for them and the therapist.

Emotionally-focused couples therapy (EFT)

EFT (Johnson, 2004) offers an intensification of both partner's emotional experience plus orchestration and regulation of affective and communicative processes within the couple, and as such is a candidate for the requirements mentioned above. A systemic therapy that uses an attachment (Bowlby, 1969) frame in particular, couples' distress is formulated as differing forms of negative cycles involving attempts to seek proximity of a significant other (attachment figure; the partner) while regulating affect (both surface feelings and less consciously-accessible fears and longings within attachment relationships) through defensive strategies. These cycles can comprise different combinations of pursuing and withdrawing interpersonal sequences, and the relevance of such formulations for the aforementioned ABI couples research is clear. Panksepp (1998) has demarcated the neurobiological basis of attachment-based interpersonal sequences and affects in mammals, and it follows that damage to these underlying systems will have an interpersonal, intersubjective reality for couples intertwined within a close relationship.

EFT proceeds through three stages:

(i) engagement and conflict de-escalation (following the creation of a secure therapeutic base for the couple, the cycle is identified and formulated with the couple, externalised as their shared enemy or adversary
(ii) changing the interactional patterns and partner's subjective positions within these, building in nurturing, reconciliatory, and secure attachment sequences, and finally
(iii) integration and consolidation of therapeutic gains.

It is a brief therapy (eight to twenty sessions, although may be longer when working with trauma survivors (Johnson, 2002)) and evidence-based, used around the world for both couples in non-clinical settings and also applied across a range of clinical groups (see Johnson, 2004).

These include couples coping with the impact of physical illness, which is conceived as a traumatising influence, in some cases exacerbating pre-existing vulnerabilities in the couple relationship (Johnson, 2002; Kowal, Johnson, & Lee, 2003; MacIntosh & Johnson,, 2008; Mikail, 2003; Naaman, Johnson, & Radwan, in press; Naaman, Radman, & Johnson, 2011; Stiell, Naaman, & Lee, 2007). Fears of rejection, abandonment, and loss are arguably universal (Bowlby, 1969) and attachment styles developed early in life have been shown to shift later on, including moves from secure to insecure styles in the face of adverse life events or prolonged abusive or neglectful relationships (Crittenden, 2000).

Four papers have described the application of EFT with acquired brain injury specifically. Stiell, Naaman, and Lee (2007) describe a case of a husband with post-stroke aphasia and the impact of such on the couple. The couple were formulated as stuck within a "withdraw–withdraw" cycle, where both partner's fears of abandonment and rejection by the other stimulated a mutual distancing, both spatially as each person occupied different parts of the house and interactionally, as less meaningful and emotional communication was shared. As with the combination of executive functioning and/or social cognition difficulties and partner withdrawal mentioned above, the withdraw–withdraw cycle in this case deprived the aphasic stroke survivor of facilitated communication and rendered him inaccessible as a recognisable partner to his wife. The authors used the EFT process plus speech therapy interventions to clarify the cycle and engage both partners in a positive cycle of increasing psychological intimacy and connection.

Recently, Stiell and Gailey (2011) devoted a book chapter to the EFT work of the Ottawa Aphasia Centre, noting the prevalence of withdraw–withdraw cycles post-stroke. They describe their co-therapy approach (couples therapist plus speech and language therapist) that

initially creates a "communication platform", a shared space that both facilitates functional communication and forms a safe, secure emotional base for the couple, consistent with Stage 1 of EFT. Augmented communication strategies are interwoven with EFT strategies such as RISSSC (Repeat what has just been said, use Imagery, Slow down, Keep it Simple, Soft intonation use Clients' words (Johnson, 2004)) and enactments of positive attachment sequences. The withdrawn non-injured partner is gradually supported to come back into contact and interaction with the survivor, who in turn is supported to express in a richer way their feelings and desire to connect with their partner. This group have also published a model of multi-disciplinary working where EFT is situated alongside physiotherapy and speech and language therapy strategies to improve family shared activities and engagement with wider community resources (Ryan, Stiell, Gailey, & Makinen, 2008).

A recent article by Chawla and Kafescioglu (2012) followed the format of Stiell, Naaman, and Lee (2007) by also presenting two cases of chronic physical illness, one of which was a traumatic brain injury. In this case, the negative cycle identified between the couple was one of pursue–withdraw—the wife or the TBI survivor would be irritated and demand that her husband would complete a particular task around the house, and he would feel overwhelmed in response and retreat to the bedroom or computer to get away from it all. This would escalate to anger and screaming between the both of them and her husband would eventually leave the house and go missing. Using EFT, the couple were able to identify the cycle and then subsequently express their attachment needs to each other (the wife's need to feel loved through her husband's sharing of tasks and his need to be accepted for all his post-injury difficulties).

Developing the evidence-base for EFT following brain injury

These articles provide rich vignettes of how EFT can offer a useful process for couples following brain injury and are an important first step in developing the practice of EFT in brain injury services. To develop this work a more systematic exploration of EFT in ABI is required. Prior to investment in large scale trials and comparisons with control conditions and other forms of therapy, it would be useful to identify any suggestive, tentative evidence for both indications and contra-indications for EFT in differing ABI subgroups, or across differing presenting problems (e.g., injury severity, predominance of one category of neuropsychological impairment or form of psychological distress between a couple). Given the remit of this journal, neuropsychological difference is an undeveloped but critical issue in the EFT literature. While some aspects of EFT may fortuitously present a natural fit with ABI-orientated, compensatory

family work practice (Bowen, Yeates, & Palmer, 2010), it is unlikely to be a panacea for all post-injury An important future development will be the identification of essential modifications and adjuncts to EFT practice for differing presenting needs across survivors of ABI. Stiell and Gailey (2011) note that where aphasia is also accompanied by difficulties in initiation or emotional lability, couples are challenged to a greater extent and the therapists' approaches in sessions need to adjust accordingly. Additionally, differences in pre-injury attachment and relational histories within and across couples may be pertinent. They have been shown to interact with cognitive impairments post-injury in complex ways (Yeates, Whitehouse-Hart, & Balfour, in press) and have been suggested to influence the responsiveness of differing couples to EFT intervention post-injury (Stiell & Gailey, 2011).

In addition there is an underdeveloped but critical conceptual issue within the EFT brain injury papers to date. Within two papers, stroke (Stiell, Naaman, & Lee, 2007) and traumatic brain injury (Chawla & Kafescioglu, 2012) are subsumed into the generic term of chronic physical illness. As such, the unique impact of neurological injuries on intimacy and interpersonal connection is masked, as are the potentially profound challenges that such injuries raise to the assumed therapeutic mechanism of EFT. Stiell and Gailey (2011) rightly elaborate on the additional strategies that are required in response to communications and initiation difficulties post-stroke. Therapeutic modifications are suggested by the authors to be necessary for an EFT approach to engage with core underlying attachment insecurities, negative withdraw–withdraw cycles and foster the development of positive attachment interactions and closeness in the relationship. However, for their couples, these authors assume the underlying potential for attachment-based motivations and needs and the possibility of connection were the cognitive difficulties and negative interpersonal cycles addressed.

For the sake of all couples who seek help in brain injury services, this assumption should be held wherever possible, but some ABI's undermines the very neurobiological basis of attachment itself (Panskepp, 1998; Yeates, in press) and have the direct potential, perhaps unlike any other disability, to either open up a pre-existing attachment insecurity within a couples' relationship, or even plunge a securely-attached couple into an predominantly insecure, disorganised shared state of mind and emotion. Following the conceptual heritage of Hegel, psychoanalytic thinkers, attachment theory, and more recently mentalization-based therapists (Fonagy, Target, Gerherly, Allen, & Bateman, 2003), the parameters of affect regulation and self-organisation formed in the intersubjective attunement of an attachment (couples) relationship can be considered to unfold if the neurobiological basis is undermined. Both

partners, organised along an axis of connection and resonance, will be affected.

A logical question that follows is that if the underlying neurological basis of attachment is compromised within at least one half of the relationship, does the action of a therapy designed to exploit attachment process still work? In the same way that the EFT work of Kathy Stiell and colleagues improves verbal communication following aphasia, the ingredients of EFT may also improve socio-emotional communication between survivors of ABI and partners. As noted above, adaptations to standard practice may be required in response to alterations to differing functions post-injury, and the emotional, embodied experience of one partner in a connection with another is no exception. In taking forward this essential question, some initial optimism can be based on the essential characteristics of EFT itself. Intensification of communicated affect and clarification and orchestration of emotional and intentional attunement all chime with the aforementioned experimental procedures, and suggest that post-injury impairments in social cognition and emotional experience are not static and absolute, and may respond to EFT uniquely. However, it is unlikely that all post-injury changes will respond in the same way or to the same degree. Such variation will presumably present an associated range of suitability for EFT couples work, and this critically requires future empirical investigation.

To provide a next step to the four existing studies, this paper presents three EFT couples cases post-injury, each completing pre-post standardised questionnaire measures of individual psychological distress and relationship functioning. Changes in questionnaire scores are subjected to a quantitative analysis of statistical and clinically significant change, alongside nuanced-observations of the therapeutic progress. Three cases (A, B. C) are presented as a therapeutic success, contrasted with one couple (D) demonstrating a mixed response to the approach. All survivors in this case series have received full neuropsychological assessments, the results of which are reported here. They are common in that they are all eighteenth months or more post-injury and on testing demonstrated impaired social cognition *and* executive functioning in some form post-injury. These are assumed to be stable, enduring difficulties on a gross level given the time post-injury, as indicated from the studies of Ietswaart, Milders, Crawford, Currie, and Scott (2008) and Milders, Ietswaart, Currie, and Crawford (2006), who reported no improvements in social cognition difficulties across a year post-injury. At the same time, the couples also differ in many ways, in terms of type of injury and broader pattern of neuropsychological difficulties for the survivor, time post-injury, length of the couples' relationship, and the attachment histories of each partner.

Service setting

All therapy reported care was conducted at the Community Head Injury Service, Aylesbury, part of the UK's National Health Service. As such, all treatment is provided free on delivery to a local geographical population. This service is fairly unique both nationally and internationally, in that it offers long-term support across the lifespan post-injury and has a family and couples service embedded within its core structure (Tyerman & Barton, 2008; Tyerman & Booth, 2001). The first author is a clinical neuropsychologist and has completed core skills training and supervision in EFT. The other authors have varying levels of formal EFT training and were either lead or co-therapists for the work described. Mythreyi Mahadevan provided data collection support.

All four survivors of injury had already engaged in the service, pursuing rehabilitation or vocational goals and working with other members of the multi-disciplinary team (occupational therapy, vocational consultant, or receiving individual psychological therapy from a clinical neuropsychologist). All couples were in active involvement with the service and couples therapy was signposted within the service. In the community head injury service nearly every survivor of ABI receives a full neuropsychological assessment with a big focus on social cognition (mentalizing, emotion recognition, social inference, social judgement-making, emotion-based decision-making) prior to commencing couples or family work. All couples were seen on a fortnightly basis unless other factors necessitated longer between-session intervals. These four couples were selected from the caseload of couples receiving EFT from the service from 2010 to the present. Fifteen cases have been seen by this service so far, and the four presented here have been selected because a) they have been seen to completion with follow-up review, b) they consented to release of data in anonymised form, and c) illustrate the particular aims of this article by serving as example for differing negative cycle types and highlighting both the successes and challenges of applying EFT in brain injury services.

Methodology

Each case will be presented in a uniform manner: a) pre-injury attachment and relational themes, b) injury data and results of neuropsychological assessment and mood/relationship questionnaires, c) reported relationship difficulties by both partners, d) a narrative account of the therapy process, and e) evaluation of therapeutic change for each couple. The latter is achieved using both quantitative and qualitative information.

Identification of neuropsychological impairments

The precise nature of post-injury neuropsychological impairments for survivors was ascertained using standardised neuropsychological tests as part of the service's routine clinical assessment. In addition to widely used tests of intellectual functioning, language, attention, memory, executive functioning and visuospatial cognition, the following tests of social cognition were used:

- The Benton Facial Recognition Test, for face perception (Benton, Sivan, Hamsher, Varney, & Spreen, 1994)
- Reading the Mind in the Eyes Test, for mentalizing (Baron-Cohen, Wheelwright, Hill, Raste, & Plumb, 2001)
- Recognition of Faux Pas Test, for mentalizing (Stone, Baron-Cohen, & Knight, 1998)
- The Awareness of Social Inference Test, TASIT, for emotion recognition and social inference (Macdonald, Flanagan, Rollins, & Kinch, 2003)
- Bangor Gambling Task, BGT, for emotion-based decision-making (Bowman & Turnbull, 2004)
- Social Situations Task, for social judgement making (Dewey, 1991).

Questionnaire measures of psychological distress and relationship functioning pre- & post-therapy

Anxiety and depression for survivors of ABI was measures using the Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983), noted for its sensitivity to mood difficulties following ABI independent of non-mood related post-injury changes. For partners, the Beck Depression Inventory-Second Edition (BDI-II) (Beck, 1991) and the Beck Anxiety Inventory (BAI) (Beck, Epstein, Brown, & Steer, 1988) were used. The degree of care-giver burden experienced by partners was assessed using a version of the Carer Strain Index (CSI) (Robinson, 1983), modified for ABI (a sixteen item scale, scores ranging from 0 to 160).Relationship functioning was assessed using the Dyadic Adjustment Scale (DAS) (Spanier, 1976), which both survivors and their partners completed. This yields an overall measure of dyadic adjustment or relationship quality (total score ranging from 0 to 131, generated from thirty-two items, combinations of Likert and dichotomous scales). In addition we have used two subscales to track changes in relationship functioning highlighted by Yeates and colleagues (2012; Yeates, unpublished) to be pertinent outcomes following brain injury. These are the Dyadic Cohesion subscale, measuring the degree of interpersonal connection and responsiveness in the relationship (six items, with scores ranging from 0 to 26) and the

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Affective Expression subscale, reflecting physical intimacy in the relationship (four items, with scores ranging from 0 to 10). In the case reports below, questionnaire scores are only reported if either partner's scores were within the clinical range/at cut-off pre-therapy, or moved into the clinical range/cut-off as a negative outcome from therapy.

Determining statistical reliability and clinical significance of therapeutic change

Statistical reliability and clinical significance of change in scores on psychological measures pre-post intervention was determined following the application of test theory as suggested by Jacobson and Truax (1991). Statistical reliability of change in scores was calculated via their Reliable Change Index (RCI), which moderates change in scores against the error of measurement of the relevant instrument. RCI is calculated using the following equation:

$$RC = \frac{X2 - X1}{Sdiff}$$

Where X2 represents the post-treatment score and X1 the pre-treatment score, and Sdiff is the standard error of difference between the two scores. Sdiff can be computed like this:

$$Sdiff = \sqrt{2}(SE)^2$$

SE=standard deviation of the normative sample

√1—test–retest reliability of the measure

Sdiff reflects the distribution of change scores should no actual change have actually occurred. An RC of 1.96 or more is highly unlikely ($P < 0.05$) should no change have actually occurred.

The clinical significance of any statistically significant, reliable change is indicated by an improved score passing a cut-off threshold for healthy functioning as specified in the literature. Where this is not available, and where the clinical and functional populations overlap (as is the case in all of the measures used in our therapy evaluations below), Jacobson and Truax advise a cut-off point that lies halfway between two standard deviations from the mean of the clinical sample (in the direction of functionality) and two standard deviations from the mean of the functional population (in the direction of dysfunctionality). Normative data for each measure is reported in Table 1 below, plus a generic ABI sample recruited by Yeates and colleagues (2012; Yeates, unpublished). In comparing the individual couples' pre-intervention scores (Tables 2 to 5 in case studies section below) with both normative and generic ABI sample data, it is clear that in the four couples described below, where post-injury

Q5

difficulties in social cognition and executive functioning are shared factors, there were increased levels of personal psychological distress and relationship difficulties.

***Table 1*: Normative and ABI sample data for each outcome measure**

Measure	*Normative sample* Reference for normative data	*ABI sample* (Yeates et al., 2012; Yeates, unpublished)
DAS total	Mean 114.8 SD 17.4 Cut-off point ≥ 96.5 Spanier (1976)	*Survivor* Mean 84.21 SD 15.65 *Partner* Mean 83.83 SD 16.85
DAS coherence	Mean 13.4 SD 4.2 Cut-off point ≥ 11.4 Spanier (1976)	*Survivor* Mean 14.62 SD 3.96 *Partner* Mean 14.48 SD 4.58
DAS affective expression	Mean 9.0 SD 2.4 Cut-off point ≥ 7.6 Spanier (1976)	*Survivor* Mean 5.94 SD 2.36 *Partner* Mean 6.23 SD 2.38
HADS anxiety (Survivors)	Mean 5.1 SD 3.3 Cut-off point ≤ 8 Spinhoven et al (1997)	Mean 8.22 SD 4.52
HADS depression (Survivors)	Mean 3.4 SD 3.6 Cut-off point ≤ 8 Spinhoven et al (1997)	Mean 6.12 SD 3.66
BDI-II (Partner)	Mean 7.65 SD 5.9 Cut-off point ≤ 3 Beck et al. (1990)	Mean 12.48 SD 10.6
BAI (Partner)	Mean 6.7 SD 5.6 Cut-off point ≤ 13 Beck et al. (1990)	Mean 8.8 SD 9.6
CSI (Partner)	Mean 12.4 SD 6.6 Cut-off point ≤ 27.3 Fitzpatrick et al. (2010)	Mean 66.7 SD 42.4

These quantitative analyses will be situated within qualitative observations of the therapeutic process itself, with conceptual links made between initial presenting problems, formulation, and final outcome.

Case studies

Case A: Jack (fifty-six) and Harriet (fifty-two)

Pre-injury attachment and relationship themes

Jack described a difficult childhood in an inner-city context, with an alcoholic father, whose intermittent physical and verbal abuse of all of his three sons was punctuated by equally sadistic attacks between the boys, with Jack as the youngest, the most common victim. His mother was described as an absent figure to her children, preoccupied with managing the needs of her husband. When not at school, Jack's refuge was the local public library, where from an early age he would immerse himself in books from opening to closing hours. He spent his early-middle adulthood progressing through the ranks of a financial institution, from counter clerk to consultant, and educating himself to degree level in the evenings. He was heroically hailed as a company success story and later head-hunted by a multi-international firm.

He met Harriet at the beginning of this ascension, and she later narrates her awe and respect of her husband's accomplishments. She became pregnant a year after they met, and went on to have three children (aged eight, ten, and fourteen at the time of the injury). She assumed the role of mother and housewife as Jack's career progressed and the family enjoyed greater and greater affluence after modest beginnings. Harriet has experienced a great deal of loss in her life. Her parents both died from illness during her late teens and early twenties, and her elder brother, with whom she was very close, died just before the birth of her first child. Harriet described herself as a "coper, just getting on with it" in an unfair life, but invested in being present for her children as they grew up. At the point of Jack's injury, the family spent the week with Jack largely absent, commuting long hours into the city to week. They would regroup at the weekends, however, when the couple would experience closeness and the family connected.

Q12

Details of brain injury

In 2007 Jack sustained an ischaemic stroke secondary to a left carotid artery occlusion. This involved infarctions of both left and right middle cerebral arteries, with damage to both left and right fronto-parietal areas. Enduring cognitive difficulties post-injury were identified on neuropsychological assessment, in the areas of attentional switching (which

affected prospective memory together with planning and organising) and the recognition of disgust. The synthesis of multi-model social information in rich social encounters would often be incomplete, due to the aforementioned attentional difficulties resulting in the ineffective prioritisation of the most pertinent social information for any given encounter.

Experiences post-injury

Jack was initially referred to our vocational rehabilitation service six months post-stroke, as part of a large flurry to return to work as soon as possible. Our service's focus was organised by this initially, with no wider family difficulties reported on initial assessment. However, a year later, eighteen months post-injury, alongside considerable gains in returning to work, he and his wife approached our service for family support. This was initially, on the one hand, a request presented by the couple to support their children in understanding and adjusting to their father's injury, and on the other, Jack's disclosure of feelings of anxiety and worry about both work and home.

Q13

Two initial large family meetings revealed a good understanding of the stroke on the children's part, but also Jack's experience of being at the bottom of the pile in the family pecking-order post-injury, changing places with the dog as the recipient of scorn and irritation from other family members. Harriet was vehemently joined by her children in despairing over Jack's withdrawal from family life as part of his attempts to return to work. While at home he would be oblivious to the needs and perspectives of his children, staying in his study for the most part, or when venturing out, obliviously stepping through the middle of the children's shared activities in a preoccupied manner to access his laptop or phone in connection with a work errand. Family commitments were frequently forgotten and deprioritised. Jack felt overwhelmed with managing a successful return to work, ever fearful of making a catastrophic mistake from an attentional slip that may cost his reputation and career, while at the same time feeling like a constant failure at home, as a father and as a husband.

He was able to articulate a constant sense of rejection by people close to him at home, initially so supportive during the acute phase post-stroke, now experienced by Jack as constantly turning on him. When the children were not present Jack described how this feeling of rejection was at its most acute when his sexual advances were rejected by Harriet. She acknowledged her intentional distancing from him to cope with the stranger he had become to her—once assertive and strong, the public face of the family (with her at his side), now scared, confused, and uncertain. She describe moments when Jack had a "rabbit in the headlights" expression on his face when confused or overwhelmed, and how she felt disgusted by this, this was not the Jack she knew and fell in love with. On

the other hand, she felt so isolated and lonely now, and missed the companionship and shared strength that she used to experience with Jack. These discussions led the couple to pursue support via couples therapy sessions, to strengthen their family from within.

Course of therapy (twenty sessions)

The themes above were very present in the room from the beginning of the EFT sessions. Jack would appear in his own world of overwhelmed anxiety, experiencing much of the early discussions as entirely criticism of his failings, which served to stimulate a deeper level of emotional withdrawal from both Harriet and the two therapists in the room. For her part, Harriet would attempt to share her disappointments with their family life at home, in a tentative, uncertain manner, fearful of her husband's new fragility. In response to his withdrawal, she would end abruptly, angry and exasperated, and then withdraw herself, muttering how hopeless the situation was becoming. The therapy session was left with uncomfortable silences, and it was difficult for the therapists to think and offer new directions of inquiry at these moments.

These moments were eventually used by the therapists to track a withdraw–withdraw cycle in the room, and in their relationships generally. Focusing initially on Jack, the therapists' evocative questioning and slicing the pre-withdrawal moments thinner were effective in expanding his emotional experience. Jack progressively opened up and engaged with the therapists initially, describing how his fear of doing the wrong thing and failing constantly at home and work served to freeze him, for fear of making things worse and losing Harriet to a greater degree. He knew how disappointed in him she had become, but felt confused as to how to make things right and when he did try to attempt solutions, would be let down by his memory.

Harriet was surprised at these details, assuming that Jack's progressive psychological absence was a result of a core disinterest in her and the family. She found this disconnection so painful, particularly in the context of all of the other powerful losses in her life, and it became easier over time to busy herself in her own activities and while maintaining her role as a supportive wife in practical terms, minimising her meaningful contact with her husband. However, the painful nature of these experiences over the year, potent as they were given previous losses, made it difficult for her to risk reaching out to Jack during sessions, even after hearing his expanded emotional communication. Her withdrawal provided few clues for Jack to go on in attuning to her needs, and assumed that unspoken criticism of him was a silent but constant factor on her part. This negative cycle between them was framed by the therapist as "staying in our bunkers", drawing on a description from Jack in an early

session, to capture the withdraw–withdraw dynamic. When Harriet's feelings did spill over and she would suddenly berate him at infrequent moments, Jack described this as resurfacing into the middle of "enemy fire", causing him to drop back again into a withdrawn position that felt safer. This formulation is represented in Figure 1 below.

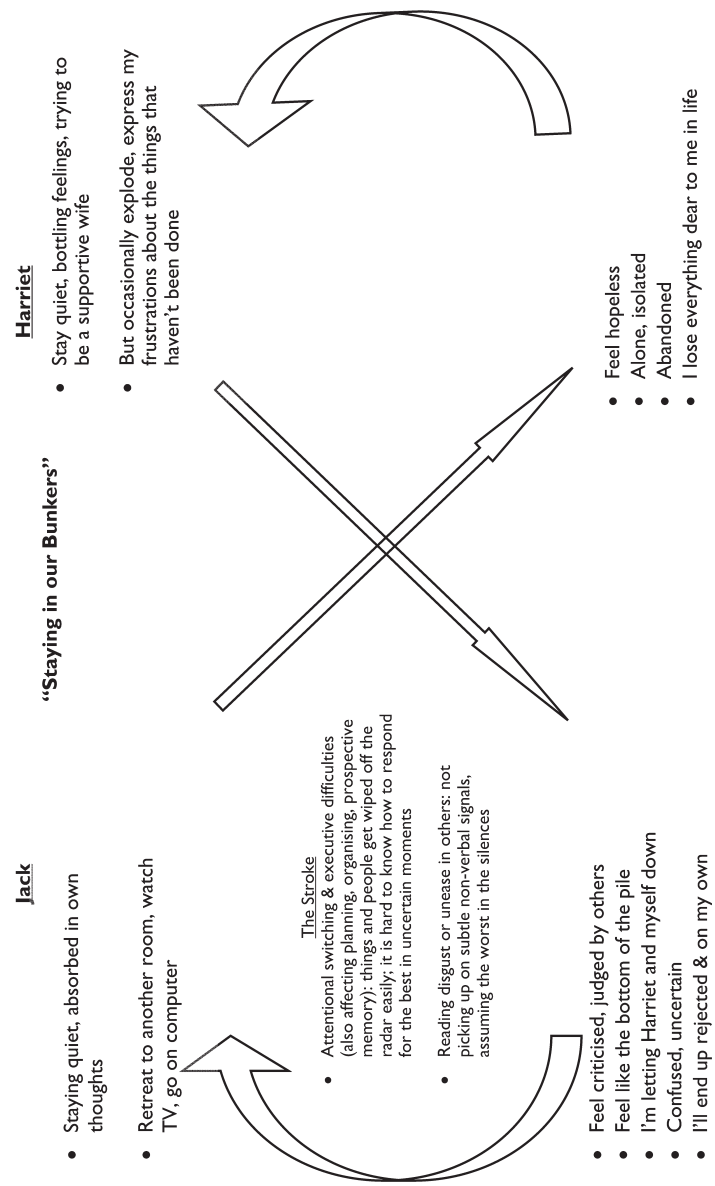

Figure 1: Jack and Harriet EFT formulation

Jack's neuropsychological impairments were located as an additional influence, with both social cognition difficulties making it difficult for Jack to read subtle social cues, and Harriet's withdrawn position meaning that other cues and content had greater capture for Jack on a moment by moment basis in their busy family home, thereby her feeling "off the radar".

Across the twenty sessions of therapy, both partners were encouraged progressively to come out from their respective bunkers and reach out to each other from positions of vulnerability. Given the importance to Harriet of knowing that she was being thought about by Jack, the therapist started the expansion of emotional expression with Jack first. He was encouraged to expand more on his position of wanting to do the right thing to support and be there for Harriet, but feeling so absolutely afraid that he will get things wrong again and let her and himself down. His only default was to privately think about his return to work instead—bringing in money to the family again would sort everything out, undo all the wrongs, and it was a path that felt more in his control and a more encouraging arena of previous triumphs in contrast to the confusion surrounding his romantic relationship.

As this narrative was being developed, the therapists checked in with Harriet constantly to understand the impact on her of hearing Jack's wishes and fears—did it allow her to feel safer in knowing that she was on Jack's radar more than she thought? If so, was she more inclined to want to reach out to him? This process led to an enactment where Jack was supported to powerfully say:

> I feel like such a failure to you as a husband and father of our children. I really want to be closer to you and support you more, I see how you struggle doing so much for all of us at home. But I am so scared of getting more things wrong, adding more to your plate and you becoming even more disappointed in me. When I'm quiet it's because I'm confused and stuck, not because I don't care.

Harriet, moved by this disclosure, was able to respond;

> If I know that I'm thought about, that I'm not on my own, that's enough. I want to be let in to help you and us be a team again. When you go into your own world, worrying about work, it feels like there's three of us in the relationship.

Jack was progressively able to hear Harriet's needs not as criticisms, but as invitations to be closer when she needed, despite him not having all the answers at those times.

These conversations allowed a regular checking-in between the couple to emerge as a repeating feature of their communication. This was supported by mobile phone alerts prompting Jack to stop work-related activities at pre-agreed times and prioritised the relationship for those moments. Harriet developed renewed confidence to express what she needed from him (in terms of childcare, domestic activities, but also ideas to renew the romance in their lives, or a need in the moment for a hug or a listening ear), and enjoy Jack's increased responsiveness and attention to her needs, from his new position of struggling but available, out of the bunker. During this course of therapy their relationship deepened, physical intimacy became a more prominent feature of their relationship, and their children reported an increased sense of the "old dad" coming back again.

The attentional difficulties remained a constant challenge to the couple's intended plans of action for sharing and closeness. As therapy sessions decreased from fortnightly to monthly towards the end, there were increasing instances where Jack's agreed and intended activities to support Harriet were not realised, overwritten in his mind by work commitments. This would trigger a retreat for both partners back into their withdrawn positions. The consolidation phase of therapy aimed to provide additional cognitive supports (e.g., more clearly defined routines at home, making the phone reminders for couples' contact more potent through the use of idiosyncratic musical melodies, marking them out from work-related concerns) to help Jack manage his intended plans in the face of distractors. Alongside this Harriet was supported to more responsively signal her feelings of falling off the radar to Jack, as it was happening, rather than sinking into her bunker and offering fewer cues for Jack to make use of.

Those self-report measures for both Jack and Harriet that were scored within the clinical range pre-therapy are listed in Table 2, alongside their scores for those measures post-therapy.

Levels of physical intimacy were rated by both partners as problematic pre-therapy. Both partners' scores on measures of depression were within the clinical range, as was Harriet's level of care-giver burden. Following the criteria set by Jacobson and Truax (1991), post-therapy measures identified as now reliably lying within the functional range were Jack's ratings of physical intimacy and both partner's self-ratings of depressive symptomatology. Harriet's ratings of physical intimacy fell just below the cut-off score for a confident assertion of a movement to functionality. Her ratings of care-giver burden had halved but still lay outside the range of normative samples. Both partner's scores of overall relationship functioning improved by more than two standard deviations, but did not reach the threshold score for a confident assertion of a move

***Table 2*: Pre- and post-therapy scores for Jack and Harriet**

Measure	*Pre-therapy score*	*Post-therapy score*	*Reliable change index*	*Nature of change*	*Clinically significant?*
DAS total					
Survivor	73	88	2.98	Improvement	No
Partner	63	76	2.58	Improvement	No
DAS coherence					
Survivor	15	15	0	No change	No
Partner	11	11	0	No change	No
DAS affective expression					
Survivor	2	7	2.9	Improvement	Yes
Partner	1	6	2.94	Improvement	No
HADS depression	15	8	–4.02	Improvement	Yes
BDI-II	13	0	–5.88	Improvement	Yes
M-CSI	88	49	–8.9	Improvement	No

into functionality. Ratings of relationship cohesion for both partners did not change significantly following therapy.

Reflections

This piece of work was identified as meaningful and helpful by both partners who could track the improvement they made together during the course of therapy, in increasing closeness and stopping the onward drift of an insidious process of disconnection and distance between them. These gains were reflected in the reliable positive changes in all of the pre-post therapy scores, although some changes did not reach clinical significance as operationalised by psychometric conventions. Those scores, the care-giver burden, and overall relationship functioning ratings, seem to reflect the enduring presence of neuro-disability in this couple's lives, be it at a significantly reduced level of impact on personal distress and relationship connection and intimacy following couples therapy (these post-therapy scores do now lay close to, or exceeding the means of the community brain injury sample).

Case B: Terry and Daisy

Pre-injury attachment and relationship themes

Terry (sixty-four) and Daisy (sixty-five) have three adult children, all of whom have left home and started families of their own. Both grew up in the north of England. Terry has one sister and recalls that while his parents were both very instrumentally supportive, his father did not often

demonstrate physical affection towards them. Seeing his father provide such to his grandchildren was both encouraging and saddening to Terry, who wondered why his father was not able to do this for him. Daisy described a very difficult childhood. She was raised mostly by her maternal grandparents, interspersed with periods with her mother who was remembered as critical, deceiving, and unpredictable. Daisy remembers entrusting sensitive information to her in confidence only to then be publically shamed by her mother using that information. Her father left when she was very young. Terry and Daisy met when they were in their early twenties, married, and began to raise a family soon after. Terry was successful at his work in insurance and was promoted regularly. However, these promotions meant relocating to different parts of the country each time. Daisy took up a role as a housewife, and accepted the challenges of relocation (for her social isolation at times, not being able to develop and maintain any social networks; managing the bulk of childcare as Terry would often leave the house early in the morning and return late in the night), seeing this as her way of supporting Terry and the family, and assuming that Terry would not chose these kind of working conditions if he had any choice throughout his working life.

Details of brain injury

Terry sustained a haemorrhagic cerebro-vascular accident ten years prior to our couples therapy intervention. An aneurysm ruptured, resulting in damage to the left dorsal frontal cortex. Neurosurgery was performed to evacuate the haematoma and embolise the aneurysm. Neuropsychological testing was completed at the beginning of the couples therapy, and found ten years post-injury evidence of enduring cognitive difficulties in auditory-verbal working memory, executive functioning affecting planning, organising, and expressive verbal communication (e.g., initiation and word-finding), together with recognition of disgust, mentalizing, and emotion-based decision-making.

Experiences post-injury

Following his injury and initial period of rehabilitation, Terry attempted an unsuccessful return to his former work role. After finding the cognitive difficulties and post-injury fatigue to be insurmountable barriers to overcome, Terry instead took up a part-time role in a local supermarket to keep himself busy, alongside leisure interests. During a ten year period post-injury, dissatisfactions grew in the couple's relationship. Daisy grew increasingly distressed that in their life post-retirement, where there was no clear need to de-prioritise their time together as a couple under any work commitments, Terry was still choosing to spend time away at work. This led Daisy to wonder if during their whole married life together,

Terry really did need to prioritise work and its disruptions the way he had done, or if Terry had really chosen this lifestyle because he never really cared that much for Daisy or the family. The implications of this possibility for Daisy left her once again, as with her mother, in a situation where all of a sudden an attachment figure reveals their deceit and lack of care for her.

On a day to day basis the couple's experience of each other became increasingly marked by cold periods of silence interspersed with arguments and spiteful comments to each other. Daisy would experience Terry as emotionally withdrawn, unavailable to her (either spending time asleep during the day or engrossed in his own activities). She felt unthought about and off Terry's radar much of the time. When she would try to reach out to him to express her sadness about this, or in response to frequent faux pas that Terry would make in social company (e.g., saying things in a direct way and unintentionally embarrassing or offending one of their friends), she would then find that Terry would respond angrily, snapping back at her. She found this response the most difficult post-injury aspect to deal with, experiencing Terry as a horrible stranger in their marriage at these moments. At the same time Terry experienced Daisy as increasingly complaining, judging, criticising, or confusing and bewildering. He experienced himself as constantly doing the wrong thing by Daisy, letting her down, but finding this is out too late and feeling ill-equipped to know how to make amends or do things differently in the future. At the beginning of couples therapy, Daisy had accessed the UK's IAPT (Improving Access to Psychological Therapies) primary care psychological therapies programme, and had completed a block of CBT (cognitive behavioural therapy) for depression, but had judged this to have been of limited value.

Course of therapy (twenty-five sessions)

The pattern of interaction (a oscillating pursue–withdraw/withdraw–withdraw cycle) that held both partner's positions in reciprocation to each other became clear during the early sessions of therapy. A cycle was outlined (Figure 2) where Terry's sense of confusion and criticism (from self and Daisy) led to withdrawal, over-determined by a combination of social cognition and executive impairments that made it harder for Terry to encode subtle social cues from Daisy and also problem-solve a response to her communicated dissatisfactions.

Terry's withdrawal would lead Daisy to feel off the radar, lonely, and abandoned, in response to which she would either pursue Terry with questions, prompts, and accusations (creating a dilemma that even if Terry did what she wanted after her prompts, he did not do it spontaneously, so his love and care for her could not be assured or trusted).

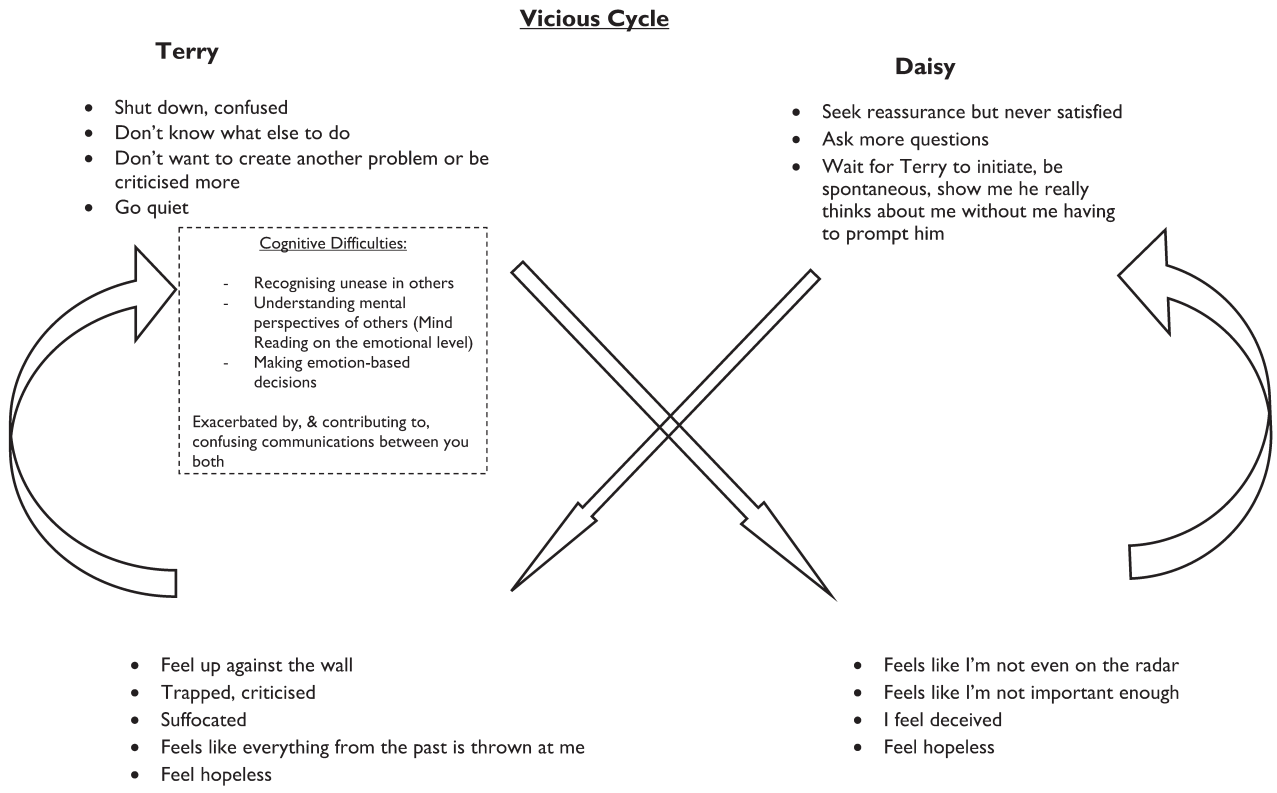

Figure 2: Terry and Daisy EFT formulation

When questioning and prompting him in this way, Daisy would focus on what Terry was doing wrong or the effect on her, but never stated what she wanted or needed from him instead (which would be too emotionally risky, leaving Terry the option of rejecting her emotional needs if stated so directly, as her mother did). At other times, burnt out from this pursuing, Daisy would also step away and emotionally withdraw from the relationship, remaining quiet, sad, and hopeless about the relationship. Terry felt trapped, judged, or confused in response to Daisy's alternating pursuing or withdrawal, and the dearth of clear social cues characteristic of both Daisy's responses kept Terry in a confused, uncertain position. At times, feeling frustrated with the confusion and sense of failure, Terry acknowledged he would act angrily in response to Daisy. As such, the cycle between them was self-maintaining.

After identifying and sharing the cycle with the couples, the initial focus was with Terry as the withdrawer, expanding his emotional experience and communication so Daisy could feel more thought about and considered. Terry's experience of confusion and uncertainty was opened up using the RISSSC questioning approach, and he was able to progressively articulate how he longed to do the right thing by Daisy, would spend a great deal of private time trying to get things right before he would overtly present the results to her. The vulnerability of this experience, the "work in progress" was taken up by the therapist, and Terry was supported to describe how privately fraught his internal attempts to get things right were for him, how feeling a failure has been a constant quality of his subjective experience. Terry became tearful and increased his eye-gaze towards Daisy during the evocative responding by the therapist, who repeated his words and imagery while emphasising the vulnerable and confusing aspects of Terry's subjectivity. At other times in the therapy, Terry had a tendency to respond to Daisy's emotional distress in an intellectual and practical way, missing the dimension of emotional attunement. The idea of responding on the wrong wavelength was developed with Terry, so highlighting the benevolent intention to reduce Daisy's distress alongside an unintended consequence of her feeling unsupported emotionally. Daisy was deeply moved by this, realising that the very times she felt "off the radar" Terry was privately anguished in his consideration of her and longing to support her and for her approval. In addition she felt compelled to reach out to Terry, comfort and feel close to him in his vulnerable experience. She described "feeling something of him again, getting the old Terry back" during these communications.

With Daisy now more hopeful following Terry's expanded emotional communication, the therapist spent more time elaborating the ambivalence of her position now in the relationship. On the one hand the aforementioned moments in therapy have given her hope that she can get

more of the old Terry back. On the other hand stepping back into a connected position with Terry risked being disappointed and hurt again (as would still happen mid-therapy when Terry's openness in sessions was contrasted with a return to withdrawn, unresponsive positions back home between sessions), and feeling "off the radar" for Daisy was always a deeply painful experience, with its re-activation of earlier attachment crises. Given the hypothesis stated in the introduction that the emotional withdrawal of the non-injured partner may over-determine an organising influence of the survivor's social cognition difficulties on the couple relationship (in fact this idea was as influenced by this particular couple as the research data discussed previously), Daisy's increased emotional engagement in the relationship was considered to be pivotal. Using evocative responding and RISSSC questioning, Daisy's emotional dilemma was articulated and amplified (while preventing her expression of this turning into critical attacks on Terry, instead stating her competing needs of longing for closeness with him yet fearing being hurt and left on her own again). She became very tearful as she was encouraged to express these needs to him in this way, her eyes looking longingly but apprehensively at him. During session twelve, with this amplified emotional signal at its most potent, Terry was overcome with compassion and embraced Daisy passionately, kissing her, apologising. This was the first physical contact of this kind in the ten years since the injury.

The consolidation phase of the therapy lasted ten sessions, over a six month period. Daisy was encouraged to progressively risk initiating a communication of emotional needs between them more and more, giving up a cherished wish that Terry will spontaneously know and respond to her needs. However, she began to find that these risky communications would lead to more frequent emotionally attuned responses from Terry. For his part, it seemed to be a constant revelation to him that to express vulnerability and disclose his struggles ("work in progress") would result in Daisy feeling thought about and closer to him. He found her modified expressions of need when things had gone wrong, to be opportunities to get things right again and be closer. The couple developed a visual symbol, a key, to show to each other to express a vulnerable need for closeness during a building argument (in an immediately recognisable way that was complementary to Terry's post-injury neuropsychological profile) which was extremely helpful in triggering reparative moments more frequently.

A comparison of pre- and post-questionnaire scores reflected the positive changes observed during therapy. Reliable and clinically significant improvements in scores were identified for Daisy's ratings of her depression and relationship cohesion. Reliable changes were observed in her ratings of overall relationship adjustment (not sufficient to fall within the

***Table 3*: Pre- and post-therapy scores for Terry and Daisy**

Measure	*Pre-therapy score*	*Post-therapy score*	*Reliable change index*	*Nature of change*	*Clinically significant?*
DAS total					
Survivor	88	83	1.78	No change	No
Partner	71	84	2.58	Improvement	No
DAS coherence					
Survivor	17	15	–0,9	No change	No
Partner	8	14	2.70	Improvement	No
DAS affective expression					
Survivor	6	8	1.18	No change	Yes
Partner	0	6	3.53	Improvement	No
HADS depression	7	5	1.15	No change	Yes
BDI-I	13	0	5.88	Improvement	Yes
M-CSI	143	32	25.34	Improvement	No

normative range but favourably comparable with the community ABI sample), relationship cohesion, physical intimacy in the relationship and care-giver burden (decreasing from the upper extremes of the scoring range to just outside the normative range on the M-CSI, and favourably comparable with the community ABI sample). Terry's post-therapy scores did move into the normative range on measures of physical intimacy and depression. However, the pre-therapy scores were just the other side of the cut-off point on these measures and the magnitude of resultant change was not statistically reliable. His ratings of overall relationship adjustment and relationship cohesion did not change as a result of therapy (Table 3).

Reflections

Of all the couples reported here, Terry and Daisy demonstrated the most dramatic changes in their expression of intimacy and emotional connection across sessions. This intervention could also be seen retrospectively as a more potent treatment of Daisy's mild depression than her individual cognitive-behavioural therapy. This makes sense given EFT's targeting of the attachment crisis in which survivors and couples find themselves post-injury, and which the individual mood difficulties of each partner may reflect (Bowlby, 1969). This case mostly clearly illustrates the hypothesised critical post-injury relationship changes hypothesised to affect many couples following ABI—neuropsychological difficulties that undermine emotional attunement in the relationship plus the emotional withdrawal of the non-injured partner. In the same way this case demonstrates the

path to relationship change that can occur when the non-injured partner makes the commitment to move out of the withdrawn position and take responsibility for initiating sequences of emotional closeness in the couple, as risky and saddening as this can be experienced initially.

Case C: Bill and Kelly

Pre-injury attachment and relationship themes

Bill (sixty-one) and Kelly (fifty-eight) had been together forty-one years at the point of seeking help with their relationship, six years post-stroke. They have two adult children who have their own families elsewhere in the UK. Both partners followed a life philosophy of working hard (doing their respective bits in the workplace and at home) and getting on with it. Neither felt they were emotionally open people. From an expanded position mid-therapy, Kelly looked back on her life with an increased awareness that she had always been putting others' needs before her own in her life. As a daughter she was encouraged less by her parents and enjoyed fewer life opportunities than her brother. After meeting and marrying Bill she settled quickly into the roles of mother and housewife, supporting the educational and vocational success of their children alongside Bill's determined progression in his career as an engineer. Bill spent his whole adult life working long hours to financially support his family, while spending little free time with them.

Details of brain injury

Bill sustained an ischaemic CVA in the right medulla in 2004, following a history of ischaemic heart disease. Neuropsychological assessment in 2010 identified enduring difficulties in the areas of planning and organising, visual selective attention, and the recognition of sadness, disgust, and sarcasm in others. In addition he had been left with left-sided weakness affecting his mobility and upper limb dexterity.

Experiences post-injury

In the six years of rehabilitation post-stroke, the majority of professional input (within stroke services) had been to support Bill's physical recovery, with his cognitive and emotional needs beginning to be addressed in the year preceding the first couples session, following contact with our service. Both Bill and Kelly attended educational groups which covered the cognitive and emotional sequelae of brain injury and both identified in these groups post-injury changes that they had been struggling with, but about which had been unable to have a shared conversation with a professional up to that point in time, nor even have a vocabulary with which to describe and make sense of such changes. One year into their

contact with our service, Kelly rang up one day in an acute state of distress. She tearfully poured out her frustrations about Bill's behaviour and disclosed that if nothing was done she might actually attempt to kill him, such was the level of rage that was triggered by her interactions with him. This intensity of feeling had been building for a while but at its current point was very distressing and she felt she had little control to avoid causing him harm. She agreed by the end of the phone call to come in with Bill for a series of couples sessions.

In the initial couples session, Kelly described her frustration, anger, and rage in response to Bill's mood and behaviour. She narrated how in the first year post-stroke Bill was upbeat and his usual determined self in his physical recovery. However, his return to work process was a disaster—he found out belatedly that he did not possess the cognitive abilities to do his pre-injury job, made some critical mistakes, and was medically retired from work. This plunged him into a deep depression for a year, and while subsequently resurfacing for the most part, had remained in a withdrawn but controlling position in their relationship ever since. She would often express her frustrations at something he has forgotten or done wrong, to which he would go quiet and unresponsive. This would infuriate Kelly, who would persist in her complaints, shout louder, and become abusive. She experienced herself as "a mad woman, a horror". Bill would quieten even more. Kelly noted that money had become a contentious issue for them both. While the couple used to use a joint account alongside their individual ones, Bill had started to redirect money to his own account, preventing Kelly from accessing it when she needed it. When she had resolved organisational problems for Bill, often at great stress and hardship to herself, she had felt unappreciated and ignored.

Bill described how he would feel attacked during these time, felt like a failure, letting everyone down, feeling out of control, and just wanting it all to go away. Since the difficulties with returning to work, a domain in which he previously experienced himself as competent and successful, he had felt less and less in control of his life. The changing around of money across bank accounts was understood as one way in which he has wrestled some form of control back in an area of life (he always used to manage money in the family), but on his terms in isolation, finding the business of a shared interaction/joint bank account to be overwhelming and unpredictable. When feeling out of control this way, he acknowledged he was more likely to either go quiet or criticise and devalue the additional roles and tasks that Kelly had been undertaking since the stroke.

Course of therapy (six sessions)

In the initial three sessions Bill and Kelly's respective positions were connected through the description of a pursue–withdraw cycle (Figure 3).

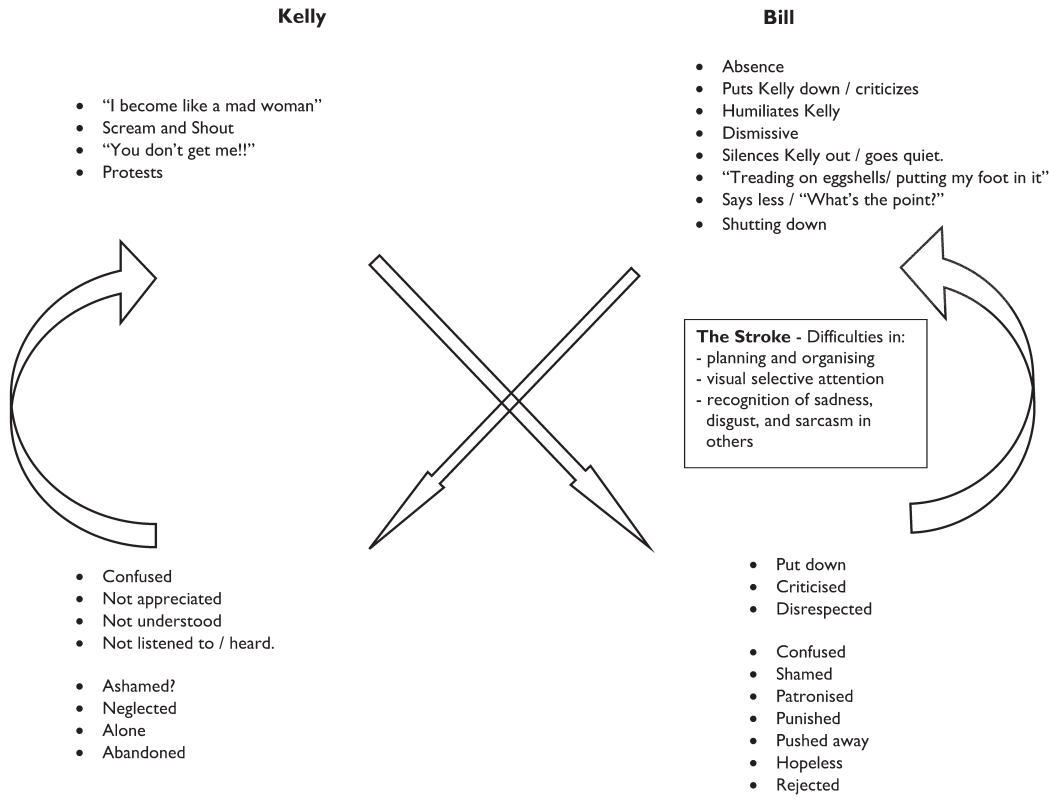

Figure 3: Bill and Kelly EFT formulation

Bill's withdrawal was seen to leave Kelly feeling unappreciated, ignored, devalued, shut out, and subsequently enraged. In trying to get a response out of Bill, with her communications escalating higher and higher as Bill withdrew more and more, Kelly's actions were reframed as an attachment protest—she would not let her contact with Bill and relationship disappear and drift away. This would leave Bill feeling criticised, confused (influenced by the social cognition and executive difficulties), overwhelmed, failing Kelly, and so trigger further withdrawal, perpetuate and escalate the cycle and lead to more extreme manifestations of the cycle between them.

The couple found the initial outline of the cycle to be extremely helpful, left them feeling less blaming of themselves or each other, and were able in the fourth and fifth sessions, via the evocative responding and RISSSC questioning of the therapist, to access more complex feelings and fundamental attachment fears. Kelly was able to explore the huge sense of resentment that she had been feeling all of her adult life about her own needs never being put first, how she was waiting desperately for this in their retirement, and how robbed of this she felt by the stroke and Bill's ever-increasing emotional close-down. She felt the loss of a thoughtful, considerate gaze on her needs more than ever, and felt fundamentally abandoned and alone. She described this tearfully, while Bill was able to explore his crisis of self-identity in a life post-stroke with no work role and opportunity to contribute and feel worthwhile. In these two sessions each partner was encourage to acknowledge the distress of the other, and reach out for and to provide support. Kelly was able to articulate how she needed Bill to let her and notice her needs and wants, so she can feel connected. Bill was able to see how this was a way of feeling useful and worthwhile again, and get comfort himself at low points, the mutual benefits of a joint account.

On the sixth session the couple announced their mutual valuing of the couples session thus far and the wish not to attend any further sessions. This was a surprise to the therapists, who while acknowledging the progress made thus far had anticipated more work to be undertaken in future sessions to cement a positive nurturing cycle in the place of the negative loop. We wondered if this departure was premature and if we would see the couple again soon in crisis and disappointment. A therapeutic letter was written to the couple to outline the formulation of the cycle, included elaborated aspects of self-experience, plus the key aspects of communication that the couple had used to exit out of this cycle and develop more nurturing interactions with each other. General neuro-rehabilitation service reviews with the couple at six and twelve-months post-therapy indicated that the therapeutic gains were main-

tained and the couple continued to enjoy a new closeness with each other. They had even completed a DIY refurbishment of their kitchen, as a team, without the prolonged appearance of the negative cycle in the process.

The couple did re-complete the measures as part of a research study eight weeks following their last session (Table 4 below). Kelly's ratings of the overall relationship adjustment had improved to just below the lower boundary of the normative sample for the Dyadic Adjustment Total Scale (and favourably comparable with the community ABI sample). ratings of relationship cohesion increased significantly, falling within the normative range post-therapy. Their ratings of physical intimacy did increase by a couple of points to just pass into the normative range, but the magnitude of this movement was not of a reliable degree statistically. Kelly's ratings of depression and anxiety both decreased in the direction of functionality, the former being reliable and clinically significant. In contrast, her scores of care-giver burden increased, perhaps reflecting a new understanding of the enduring aspects of the brain injury influencing their relationship (but without ongoing couple's work to support this understanding). While Bill's ratings of relationship cohesion significantly improved post-therapy, his score for overall relationship functioning decreased significantly. The reasons for this were unclear, and may have reflected some outstanding work for him within couples therapy that was not completed within the six sessions held.

***Table 4*: Pre- and post-therapy scores for Bill and Kelly**

Measure	*Pre-therapy score*	*Post-therapy score*	*Reliable change index*	*Nature of change*	*Clinically significant?*
DAS total					
Survivor	82	69	–2.58	Negative	No
Partner	69	90	4.17	Improvement	No
DAS coherence					
Survivor	14	19	2.25	Improvement	Yes
Partner	6	19	3.15	Improvement	Yes
DAS affective expression					
Survivor	7	9	1.18	No change	Yes
Partner	8	9	0.6	No change	Yes
BDI-II	13	7	–2.17	Improvement	Yes
BAI	9	2	–1.8	No change	Yes
M-CSI	65	81	4.17	Negative	No

Reflections

This couple appear to have experienced a meaningful change in their relationship over six sessions (three months), following several years of relationship and psychological distress post-stroke. The therapists would have like to have persisted in the EFT process to deepen the couples' exploration of their respective constructions of self and attachment fears, to orchestrate deeper reconciliatory, positive interactional cycles. However, the couple decided their work was done following the six sessions, and their self-report several months later did bear this judgement out, even if the psychometric data indicated outstanding areas of individual needs and relationship difficulties.

Case D: Jeff and Tammy

Pre-injury attachment and relationship themes

Jeff (forty-two) and Tammy (fifty-eight) formed a relationship following Jeff's injury. Jeff was brought up in Scotland but moved down to England when seventeen to take advantage of greater work opportunities in London. He was in an abusive relationship with a female partner for several years and sustained a traumatic injury from an assault, suspected to have been perpetrated by her, in 2008. Jeff does not like to think about this time and has remained cautious and uncertain in relationships since. Tammy disclosed a very abusive childhood, involving repeated sexual abuse from her siblings alongside neglect interspersed with violence from both parents. She moved away and distanced herself from her family as soon as she was old enough to leave. Her adult life to date included a chronic history of bulimia nervosa and a succession of failed relationships. She has been a victim of domestic violence from previous partners, and has been cheated on by others. She has an adult daughter who has ostracised her, Tammy was not able to explore why this has happened.

Details of brain injury

An MRI scan (magnetic resonance imaging scan) highlighted damage to the right frontal pole and inferior right frontal cortex. Neuropsychological assessment eighteen months post-injury identified acquired, enduring difficulties in executive functioning (initiation plus the formulation and implementation of plans in response to multiple goals), visual selective attention, speed of information processing, working memory, and the encoding and retrieval of information secondary to the executive difficulties. This appears to have extended into the semantic domain, as Jeff's access of verbal meanings and knowledge was problematic and unreliable. Social cognition assessment highlighted difficulties in face perception, recognition of others' happiness, anger, anxiety, disgust (with an intact ability to recognise sadness), inference of sarcasm in

others' communication, mentalizing when using contextual and verbal descriptive information alone, detecting violations of social norms, and emotion-based decision making.

Experiences post-injury

Jeff and Tammy met while working as support workers in a community youth project, Jeff's first paid role, four years post-injury. The couple had been together twelve months when they requested support from the service, two years post-injury. While Tammy rented a room in a shared house elsewhere, the couple had essentially been cohabiting at Jeff's flat for six months at this point. Difficulties developed in two areas: shared activities together, and sexual intimacy. When both partners were not working, Tammy grew increasingly dissatisfied that they would spend all of their time in Jeff's flat, with him mostly playing on the games console. She would end up doing all the cleaning and cooking for him. Jeff's experience during these times was a mixture of fatigue (a significant post-injury feature in his life since he began part-time work) and inertia, with his initiation difficulties making it hard for him to spontaneously generate ideas for things to do together. Tammy felt unthought about and a servant to Jeff, as she did in the bedroom. They had developed a pattern of sexual contact were she would please Jeff while feeling neglected by him, putting up with this but growing in resentment. Jeff described constant uncertainty in the bedroom, not knowing what to do differently to please Tammy, and worrying about doing the wrong thing. Tammy's growing feeling in the relationship as a whole was that Jeff did not really love or care about her, was keeping secrets and withholding things from her. This was a familiar position for Tammy in relationships, and portended a bleak future for them together.

Course of therapy (thirteen sessions)

The sessions of EFT were held over a period of a year. The initial eight sessions were held fortnightly over four month and the last four were at infrequent intervals, interspersed with cancellations from the couple. During the latter eight month period, the couple broke up on two separate occasions, each lasting around four weeks, and later contacted the service to resume sessions about four to six weeks after getting back together. The couple did separate for a third time and have not resumed sessions to date, although have been back together for around three months to the authors' knowledge.

Following a standard EFT process a negative cycle was outlined in early sessions, describing Jeff's sense of being "in a fog", accompanied by Tammy's need to build a protective brick wall around herself (Figure 4), a withdraw–withdraw cycle.

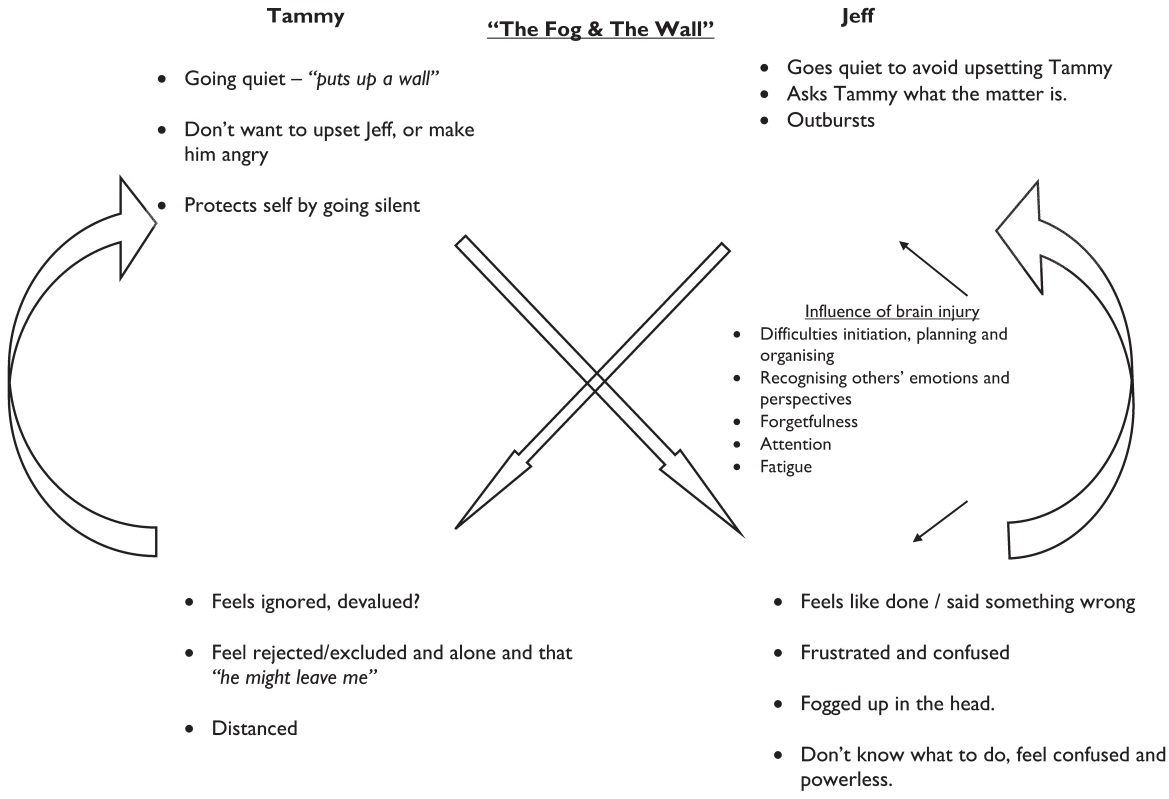

Figure 4: Jeff and Tammy EFT formulation

Tracking the cycle through, Tammy would raise an issue of discontentment with Jeff (mostly around time together or sex), which would leave Jeff frozen and confused. He had a sense that he had done something wrong again, that Tammy's unhappiness was growing and it was his fault, but did not know what to do to fix it. At this point initiation difficulties made it difficult to generate a response, interacting with re-activation of his early relationship trauma—when a partner would raise discontentment, in his experience, the situation would become dangerous. All Jeff knew for certain was that any attempted solution typically was not what was required, and made things worse. So Jeff typically did nothing, apologises, but then would say little, withdrawing into himself, and turning away to play on a computer game. Tammy experienced this withdrawn lack of response as something to be suspicious about. She felt that Jeff's head was swimming with thoughts and information that he was withholding from her. She noted that at times she wondered if Jeff's sisters and wider family all knew about aspects of his life that she did not, and had fun and enriched relationships together to her exclusion. She came to understand these moments in the cycle as re-activation of previous traumatic feelings of shame, humiliation, abandonment, and rejection from earlier experiences of abuse and infidelity. Tammy felt out of control in this place and relied on a tried and trusted only remaining option when feeling like this throughout her life—to withdraw and retreat into herself. She described this as building up a brick circular wall to protect herself from the repeating cruelty that life seemed to throw at her. In this place, while Tammy felt safer, Jeff had less cues to read from her on how to reach out to her (compounded by his array of emotion recognition and emotion-based decision-making difficulties) and felt in an even thicker fog, so escalating the cycle.

Given the complex, post-trauma aspects of this work, the guidance of Johnson (2002) was followed to move through the therapy at a very slow pace, attempting to establish a secure base in the therapy sessions to allow both partners to start reaching out to one another. The therapists focused on Jeff first, expanding his sense of being in the fog at critical moments, including in the sessions when Tammy did express her discontent. The disorientating and destabilising qualities of this experience was elaborated ("It feels like the world is falling away from me and I don't know which way to turn next") as Tammy listened, and clear links were made both to previous relationship trauma (a shared aspect of experience for them both) and to the brain injury, with education around executive functioning difficulties and problems in initiation ("Jeff the brain injury seems to have left you stuck 'on pause' at certain moments, unable to 'press play' and get your thoughts going again").

Tammy's experienced was explored simultaneously in these discussions, seeing what was happening with her brick wall the more she was hearing about Jeff's sense of being in a fog. Hearing that there were no secrets, just confusion, did that lead her to take a risk and remove one or two bricks from her wall? Could she dare to reach a hand out from the hole in her wall and express her need for closeness and connection and help Jeff in knowing how best to meet those needs? This was particularly pertinent in discussing sexual intimacy, as Tammy acknowledged that she always ended up pleasing her partners while feeling neglected, but feared bringing this up in a relationship in case the partner would leave her. Tammy started to take risks in guiding Jeff to help him attune to her physically (following exercises from Sensate Focus psychosexual therapy, Masters & Johnson, 1976). Given the uncertainty and anxiety of both partners in elaborating their fears and needs, the therapists expanded Jeff and Tammy's articulated experience through one to one exchanges between client and therapist first (allowing the other partner to hear the emerging, different conversation and checking in on their responses), later building to enacted expressions of fears and needs to each other.

The couple initially responded to these ideas well, and charted a progression of increased closeness and openness in their relationship, feeling that their reaching out to each other to express their vulnerabilities and uncertainties were met safely and responded to by the other. Tammy found the psycho-education around initiation difficulties helpful, further supported by the local brain injury specialist nurse outside of the couples' sessions. However, when a misattunement eventually occurred, when Jeff was particularly tired or did not have the right cues to respond to Tammy, she would be immediately plunged back into a unsafe, distrusting position, and needed to build the brick wall around her once again. The previous information about post-injury cognitive difficulties, once meaningful when she felt emotionally safer, were no longer accessible to her in those unsafe moments. Her withdrawal during these times would include the couples therapy sessions themselves, as it would be her who wished to cancel these sessions and the once again risk opportunities to share vulnerable feelings. Jeff would be back in the fog in these times, without sufficient cues and prompts, and the withdraw–withdraw cycle re-established itself with vigour once more.

The couple did complete a re-administration of the questionnaires for research purposes in the same week as their last appointment, permitting a comparisons of scores with those derived at the beginning of therapy, in Table 5 below.

***Table 5*: Pre- and post-therapy scores for Jeff and Tammy**

Measure	*Pre-therapy score*	*Post-therapy score*	*Reliable change index*	*Nature of change*	*Clinically significant?*
DAS total					
Survivor	58	58	0	No change	No
Partner	55	68	2.58	Improvement	No
DAS coherence					
Survivor	16	8	–2.7	Negative	No
Partner	5	8	1.35	No change	No
DAS affective expression					
Survivor	3	3	0	No change	No
Partner	7	6	–0.6	No change	No
HADS anxiety	8	17	5.36	Negative	Yes
HADS depression	12	11	–0.57	No change	No
BDI-II	29	39	4.52	Negative	Yes
BAI	26	25	–0.25	No change	No
M-CSI	56	37	–4.34	Improvement	No

At the beginning of therapy, both partners rated the overall adjustment, cohesion, and physical intimacy in their relationship within the dysfunctional range on the various Dyadic scales (although Jeff's rating of interconnectedness was within the functional range). Jeff's self-ratings of anxiety and depression were within the borderline range for the former and in the clinical range for the latter. Tammy's self-report scores were within the clinical range for depression (severe range), anxiety (moderate range), and care-giver burden. After the thirteen sessions, Tammy's rating of care-giver burden did decrease, but did not reach the normative range. This was understood to reflect the increasing time she had been taking away from the relationship at the point of post-therapy questionnaire completion. While Tammy's ratings of overall relationship quality did significantly increase post-therapy, both partner's ratings of relationship cohesion, physical intimacy, depression, and anxiety either remained stable within the clinical range or significantly worsened to more extreme levels of distress.

Reflections

It seems that EFT, while helpful for this couple initially, did not lead to changes in relationship for this couple as it did for the other three couples. While the brain injury service's link with Jeff remained from a

community neuro-rehabilitation perspective, it has become clear that the couple have moved forward in their relationship following their last separation, without the need for couples therapy. It may be that it is emotionally safer for both of them at the current time to carry on with a dissatisfactory, but predictable and safer status-quo. Indeed it may be the practical supported provided by occupational therapy and community nursing within the team, in relation to planning leisure and daily activities, that has provided the most enduring support for the couple in their ongoing but fragile and changeable connection with each other.

It is unclear which specific factors within the complexities of this couple case are responsible for the limited efficacy of EFT. Jeff is the only survivor of traumatic brain injury in these cases. He did sustain an array of social cognition impairments, although this was also the case for the ABI survivors in the previous cases. His initiation difficulties were more pronounced than the other survivors, which may have over-determined a greater likelihood of withdraw–withdraw cycle activation on a weekly basis. Unique to this couple are the fact that they met post-injury and have no children together, so a lack of a historical constellation of meanings and shared relationships may be a vulnerability factor in their relationship (as suggested by Kreutzer, Marwitz, Hsu, Williams, & Riddick, 2007). An additional distinguishing factor is the pre-injury psychological trauma history of both partners, situated as it was within close relationships. For Jeff this may have interacted with and compounded the effects of the cognitive difficulties in influencing a withdrawn position within relationships, while for Tammy her relationship history clearly influenced how she experienced the manifestation of Jeff's cognitive difficulties (despite psycho-education on an intellectual, factual level), and her ability to initiate an exit out of the negative cycle for both of them. Without the dynamic work and cues of the therapist in the session to help the couples move out of their positions in the cycle and take risks in expanding their emotional communication of vulnerability and reach out to each other, the relationship between and beyond sessions seems to have returned to an organisation of withdrawal and avoidance of emotional risks.

Discussion and conclusions

Four EFT couples therapy cases have been presented. In each case these couples include a survivor of ABI (eighteen months post-injury or more), coping with enduring difficulties in social cognition and executive functioning (a common neuropsychological profile across many forms of ABI, (Yeates, in press)), in addition to psychological distress and challenges to self-identity. Their romantic partners were also emotionally distressed,

suffering clinical levels of depression, anxiety, anger, or burden) at the beginning of therapy. The relationship in every case was characterised by disconnection prior to therapy, some involving conflict, others involving cold, lifeless withdrawal. As a result of EFT in three of the cases, the psychological distress of individual partners was reduced and gains were made in the couple relationship, often involving increased interconnectedness/cohesion, physical intimacy, or overall relationship satisfaction. While comparing very favourably with a community brain injury sample (Yeates, unpublished; Yeates et al., 2012), in many cases aspects of the relationship were not improved to the scoring range of non-distressed marital couples who have not experienced a brain injury. However, in the first three cases many aspects of the relationship, as rated by both partners was improved significantly and on occasion moved to close to the lower boundaries of a normal sample. Given the enduring and devastating features of ABI as it is often portrayed in both scientific and lay literatures, such empirically demonstrated achievements are important. However, it is the qualitative process gains made in therapy by the first three couples that are the real encouragement to the clinicians reporting this work here. These often occurred in a short period of time following many years post-injury, and after many years of relational and individual distress. We have been honoured to witness profound moments of reconnection during the EFT process, often after long period of drought and inertia in emotional closeness.

The fourth couple are presented as a contrast. Given the limited in-therapy progress made by the couple and their ultimate disengagement, we were surprised that some positive relational changes were evident in the post-therapy DAS scores. However, most of the measures did bear out the therapists' impressions in the room—the EFT process, with its requirement for partners to take progressive risks in sharing attachment fears and needs with each other, was too great an ongoing demand. The particular combination of psychological trauma histories, withdrawal attachment strategies, and initiation cognitive difficulties, was an insidious organising influence in this couple.

The comparison of the three successful and one unsuccessful cases hints at the therapeutic mechanism of EFT for this clinical population, both in terms of its potential value and limitations across different couples. Where social cognition and executive difficulties have over-determined emotional disconnection between a couple post-injury, often exploiting pre-injury vulnerabilities in the relationship, EFT can facilitate the clarification of emotional states, needs and perspectives, and subsequent orchestration of these and attunement between partners. The evocative responding and RISSSC techniques of EFT serve to amplify emotional experience and communication, and may serve to breach a

raised threshold for the survivor post-injury (Yeates, 2013) to be moved into a compassionate, nurturing response to their non-injured partner. In this way, EFT can be seen to directly target neuropsychological threats to attachment and social connection. These neuropsychological influences are considered to be enduring, however, and without a moderating influence in relationship dynamics, are always potential threats to closeness within a couple's relationship. As such, the authors believe that successful EFT following brain injury requires the non-injured partner to take ongoing responsibility to step out of a conflictual or withdrawn position to cue/initiate an attuned response from the survivor. Many partners are willing to take this role on after experiencing meaningful positive changes in their relationship during EFT sessions. For other couples, however, perhaps like Jeff and Tammy, the level of interacting complex psychological and neuropsychological needs would not permit the prolonged acquisition of this role-arrangement and communication pattern.

The four cases here, however, are not a substantial basis for generalisations about the efficacy of EFT following brain injury. Instead, the detailed observations and single-case evaluations reported here support a rationale to test the efficacy of this therapy through controlled group studies, and determine with greater certainty the proportion of distressed couples that may or may not benefit from this approach in brain injury services. Group therapy process research may also identify survivor- and/or partner-related variables that are predictive of therapy outcome. Until such studies are reported, further case study reports of EFT with different ABI subgroups (in terms of injury type and/or differing profiles of neuropsychological, psychological, and relational needs) would be welcome to develop couples therapy practice in brain injury services.

References

Baron-Cohen, S., Wheelwright, S., Hill, J., Raste, Y., & Plumb, I. (2001). The "Reading the Mind in the Eyes" Test revised version: a study with normal adults, and adults with Asperger syndrome or high-functioning autism. *The Journal of Child Psychology and Psychiatry and Allied Disciplines, 42*: 241–251.

Bartels, A., & Zeki, S. (2000). The neural basis of romantic love. *NeuroReport, 11*: 3829–3834.

Bechara, A., Damasio, A. R., Damasio, H., & Anderson, S. W. (1994). Insensitivity to future consequences following damage to human prefrontal cortex. *Cognition, 50*: 7–15.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of Consulting and Clinical Psychology, 56*: 893–897.

Q14

*Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *BDI-II, Beck Depression Inventory: Manual* (2nd edn). Boston: Harcourt Brace.

Benton. A., Sivan, A., Hamsher, K., Varney, N., & Spreen, O. (1994). *Contributions to Neuropsychological Assessment*. New York: Oxford University Press.

Blair, R., & Cipolotti, L. (2000). Impaired social response reversal: a case of acquired sociopathy. *Brain, 123*: 1122–1141.

Q14 *Boake, C. (1991). Social skills training following head injury. In: J. S. Kreutzer & P. H. Wehman (Eds.), *Cognitive Rehabilitation for Persons with Traumatic Brain Injury: A Functional Approach*. Baltimore, MD: Paul H. Brookes.

Bowen, C., Yeates, G. N., & Palmer, S. (2010). *A Relational Approach to Rehabilitation: Thinking About Relationships After Brain Injury*. London: Karnac.

Bowlby, J. (1969). *Attachment. Vol 1 of Attachment & Loss*. New York: Hogarth.

Bowman, C. H., & Turnbull, O. H. (2004). Emotion-based learning on a simplified card game: the Iowa and Bangor Gambling Tasks. *Brain & Cognition, 55*(2): 277–282.

Bracy, C. A., & Douglas, J. M. (2005). Marital dyad perceptions of injured partners' communication following severe traumatic brain injury. *Brain Impairment, 6*: 1–12.

Chawla, N., & Kafescioglu, N. (2012). Evidenced-based couples therapy for chronic illness: enriching the emotional quality of relationships with emotionally-focused therapy. *Journal of Family Psychotherapy, 23*(1): 42–53.

Crimmins, C. (2000). *Where is the Mango Princess*? New York: Vintage.

Crittenden, P. (2000). A dynamic-maturational approach to continuity and change in patterns of attachment. In: P. Crittenden & A. Claussen (Eds.), *The Organisation of Attachment Relationships: Maturation, Culture and Context* (pp. 343–357). Cambridge: Cambridge University Press.

Dewey, M. (1991). Living with Aspergers syndrome. In: U. Frith. (Ed.), *Autism and Aspergers Syndrome* (pp. 184–206). Cambridge: Cambridge University Press.

Elsass, L., & Kinsella, G. (1987). Social interaction following severe closed head injury. *Psychological Medicine, 17*(1): 67–78.

Evans, C. E. Y., Bowman, C. H., & Turnbull, O. H. (2005). Subjective awareness on the Iowa Gambling Task: the key role of emotional experience in schizophrenia. *Journal of Clinical & Experimental Neuropsychology, 27*: 656–664.

Feigelson, C. (1993). Personality death, object loss, and the uncanny. *The International Journal of Psychoanalysis, 74*(2): 331–345.

Fonagy, P., Target, M., Gergerly, G., Allen, J. G., & Bateman, A. W. (2003). The developmental roots of borderline personality disorder in early attachment relationships: a theory and some evidence. *Psychoanalytical Inquiry, 23*: 412–459.

Frank, R. G., Haut, A. E., Smick, M., Haut, M. W., & Chaney, J. M. (1990). Coping and family functions after closed head injury. *Brain Injury, 4*: 289–295.

Gill, C. J., Sander, A. M., Robins, N., Mazzei, D. K., & Struchen, M. A. (2011). Exploring experiences of intimacy from the viewpoint of individuals with traumatic brain injury and their partners. *Journal of Head Trauma Rehabilitation, 26*(1): 56–68.

Godwin, E. E., Kreutzer, J. S., Arango-Lasprilla, J. C., & Lehan, T. J. (2011). Marriage after brain injury: review, analysis, and research recommendations. *Journal of Head Trauma Rehabilitation, 26*(1): 43–55.

Ietswaart, M., Milders, M., Crawford, J. R., Currie, D., & Scott, C. L. (2008). Longitudinal aspects of emotional recognition in patients with traumatic brain injury. *Neuropsychologia, 46*(1): 148–159.

Jacobson, N. S., & Truax, P. (1991). Clinical significance: a statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59*: 12–19.

Johnson, S. M. (2002). *Emotionally Focused Couples Therapy with Trauma Survivors*: *Strengthening the Attachment Bonds*. New York: Guildford Press.

Johnson, S. (2004). *The Practice of Emotionally-Focussed Couples Therapy*: *Creating Connection*. New York: Other Press.

Kowal, J., Johnson, J., & Lee, A. (2003). Chronic illness in couples: a case for emotionally focused therapy. *Journal of Marital & Family Therapy, 29*: 299–310.

Kreutzer, J., Marwitz, J., Hsu, N., Williams, K., & Riddick, A. (2007). Martial stability after brain injury: an investigation and analysis. *NeuroRehabilitation, 22*: 53–59.

MacIntosh, H., & Johnson, S. (2008). Emotionally focused therapy for couples and sexual abuse survivors. *Journal of Marital & Family Therapy, 34*: 298–315.

Masters, W. H., & Johnson, V. E. (1976). Principles of the new sex therapy. *American Journal of Psychiatry, 133*: 548–554.

Mauss-Clum, N., & Ryan, M. (1981). Brain injury and the family. *Journal of Neurosurgical Nursing, 13*: 165–169.

McDonald, S., Bornhofen, C., & Hunt, C. (2009). Enhancing emotion recognition after severe traumatic brain injury: the role of focused attention and mimicry. *Neuropsychological Rehabilitation, 7*: 1–9.

McDonald, S., Flanagan, S., Rollins, J., & Kinch, J. (2003). TASIT: a new clinical tool for assessing social perception after traumatic brain injury. *Journal of Head Trauma Rehabilitation, 18*: 219–238.

McDonald, S., Rushby, J., Li, S., de Sousa A., Dimoska, A., James, C., Tate, R., & Togher, L. (2011). The influence of attention and arousal on emotion perception in adults with severe traumatic brain injury. *International Journal of Psychophysiology, 82*(1): 124–131.

McDonald, S., Tate, R., Togher, L., Bornhofen, C., Long, E., Gertler, P., & Bowen, R. (2008). Social skills treatment for people with severe, chronic acquired brain injuries: a multicenter trial. *Archives of Physical Medicine & Rehabilitation, 89*: 1648–1659.

Mikail, S. (2003). Attachment and the experience of chronic pain: a couples perspective. In: S. M. Johnson, & V. E. Whiffen (Eds.), *Attachment Process in Couples and Family Therapy* (pp. 366–385). New York: Guildford Press.

Milders, M., Ietswaart, M., Currie, D., & Crawford, J. (2006). Impairments in theory of mind shortly after traumatic brain injury and at one year follow-up. *Neuropsychology, 20*(4): 400–408.

Naaman, S., Johnson, S. M., & Radwan, K. (in press). Evaluation of the clinical efficacy of emotionally focused therapy on psychological adjustment

of couples facing early breast cancer. *Psychiatry*: *Biological & Interpersonal Processes*.

Naaman, S., Radman, K., & Johnson, S. M. (2011). Emotionally focused couples therapy in chronic medical illness: working with the aftermath of breast cancer. In: J. L., Furrow, S. M. Johnson, & B. A. Bradley (Eds), *The Emotionally Focused Casebook* (pp. 141–164). New York: Routledge.

Oddy, M. (2001). Sexual relationships following brain injury. *Sexual Relationship Therapy*, *16*: 247–259.

Panksepp, J. (1998). *Affective Neuroscience*: *The Foundations of Human and Animal Emotions*. Oxford: Oxford University Press.

Perlesz, A., Kinsella, G., & Crowe, S. (2000). Psychological distress and family satisfaction following traumatic brain injury: Injured individuals and their primary, secondary and tertiary carers. *The Journal of Head Trauma Rehabilitation*, *15*(3): 909–930.

Peters, L. C., Stambrook, M., Moore, A. D., & Esses, L. (1990). Psychosocial sequelae of closed brain injury: effects on the marital relationship. *Brain Injury*, *4*(1): 39–47.

Ponsford, J. (2003). Sexual changes associated with traumatic brain injury. *Neuropsychological Rehabilitation*, *13*: 275–289.

Robinson, B. C. (1983). The validation of a caregiver strain index. *Journal of Gerontology*, *38*(3): 344–348.

Rosenbaum, M., & Najenson, T. (1976). Change in patterns and symptoms of low mood as reported by wives of severely brain-injured soldiers. *Journal of Consulting & Clinical Psychology*, *44*(6): 881–888.

Ryan, C., Stiell, K., Gailey, G., & Makinen, J. (2008). Evaluating a family-centre approach to leisure education and community reintegration following stroke. *Therapeutic Recreation Journal*, *42*: 119–131.

Shadden, B. (2005). Aphasia as identity theft: theory and practice. *Aphasiology*, *19*: 211–223.

Simpson, J. (2001). Addressing the sexual concerns of persons with traumatic brain injury in rehabilitation settings: a framework for action. *Brain Impairment*, *2*: 97–108.

Spanier, G. B. (1976). Measuring dyadic adjustment: new scales for assessing the quality of marriage and other dyads. *Journal of Marriage and the Family*, *38*: 15–28.

Stiell, K., & Gailey, G. (2011). Emotionally focused therapy for couples living with aphasia. In: J. L., Furrow, S. M. Johnson, & B. A. Bradley (Eds.), *The Emotionally Focused Casebook* (pp. 113–140). New York: Routledge.

Stiell, K., Naaman, S. C., & Lee, A. (2007). Couples and chronic illness: an attachment perspective and emotionally-focused interventions. *Journal of Systemic Therapies*, *26*: 59–74.

Stone, V. E., Baron-Cohen, S., & Knight, R. T. (1998). Frontal lobe contributions to theory of mind. *Journal of Cognitive Neuroscience*, *1*: 640–656.

Testa, J. A., Malec, J. F., Moessner, A. M., & Browt, A. W. (2006). Predicting family functioning after TBI—impact of neurobehavioral factors. *Journal of Head Trauma Rehabilitation*, *21*(3): 236–247.

Thomsen, I. V. (1974). The patient with severe head injury and his family. *Scandinavian Journal of Rehabilitation Medicine, 6*: 180–183.

Tyerman, A., & Barton, S. (2008). Working with families: a community service example. In: A. Tyerman, & N. S. King (Eds.), *Psychological Approaches to Rehabilitation after Traumatic Brain Injury*. Oxford: BPS Blackwell.

Tyerman, A., & Booth, J. (2001). Family interventions after brain injury: a service example. *NeuroRehabilitation, 16*: 59–66.

Wood, R. Ll. (2005). Waking up next to a stranger. *The Psychologist, 18*(3): 138–140.

Wood, R. Ll., & Yurdakul, L. K. (1997). Change in relationship status following traumatic brain injury. *Brain Injury, 11*(7): 491–502.

Yeates, G. N. (2009). Working with families in neuropsychological rehabilitation. In: B. A. Wilson, F. Gracey, J. J. Evans, & A. Bateman (Eds.), *Neuropsychological Rehabilitation*: *Theory, Models, Therapy & Outcome*. Cambridge: Cambridge University Press.

Q14 *Yeates, G. N. (2011). Social neuropsychological and psychosocial predictors of couples' relationship outcomes following acquired brain injury (ABI). Unpublished Masters Thesis: Univershity of Glasgow.

Yeates, G. N. (2013). Towards the neuropsychological foundations for couples therapy following acquired brain injury (ABI): a review of empirical evidence and relevant concepts. *Neuro-Disability & Psychotherapy, 1*(1): 108–150.

Yeates, G. N., McMillan, T., Weddell, R., Eley, D., Zapiain Creamer, N., Mahadevan, M., Goshawk, M., Rowberry, M., Dunn, S., Gracey, F., & Bateman, A. (2012). Social cognition and psychosocial predictors of couple relationship outcomes following acquired brain injury. *Paper Presented at the 9th International Brain Injury Association Conference, Edinburgh*.

Yeates, G. N., Whitehouse-Hart, J., & Balfour, A. (in press). Personality change, social cognition and intimacy in couples relationships after brain injury: intrusion, loss and misidentification. *Neuropsychoanalysis*.

Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica, 67*: 361–370.