Traumatic Amnesia

Traumatic amnesia and delayed memory retrieval of traumatic events has been widely documented for almost one hundred years, and was scientifically accepted in the context of war, accident or disasters.[i] The concept only became controversial when it referred to child sexual abuse.

Given that this issue has recently been resurrected in the media Adults Surviving Child Abuse (ASCA) and the NSW Mental Health Coordinating Council have developed this brief literature review to inform our members, the community and the media of the extensive research evidence on traumatic amnesia (also referred to as recovered memory) which exists.

Amnesia

Both short and long-term traumatic amnesia have been observed following a range of aversive events such as: war, natural disasters, adult rape and child physical, emotional and sexual abuse, incest and witnessing or experiencing extreme violence.

When considering combat and war related trauma, as far back as 1941 a study on those with severe stress e.g. soldiers engaged in prolonged fighting in the battle of Dunkirk, established 35% experienced amnesia.[ii] In studying the Holocaust, 3.8% of concentration camp survivors and 10% of tattooed survivors of Auschwitz were found to display psychogenic amnesia.[iii]

Judith Herman explored the impact of trauma on the human psyche regardless of its origin, drawing parallels between trauma as a result of a natural disaster, political terror, captivity, combat and that in the private domain - domestic abuse, incest and rape. Her views on the posttraumatic stress disorder (PTSD) and complex PTSD changed the way those in the psychiatric fields diagnosed and perceived trauma (1997, 2002).[iv]

Controversy surrounding the concept of 'repressed memory' peaked in the 1990's with opponents questioning its validity, despite an abundance of claims supporting the recovery of memory from counsellors and therapists working with survivors. The clinical experience of therapists supporting the validity of the existence of delayed recall of abuse memories has now been upheld by innumerable prospective and retrospective studies in the field. While it should be noted that every instance of recall involves some degree of reconstruction [v] the possibility that false memories can occur does not negate the fact that other recalled memories are true.

- Study: A random sample of 724 individuals from across the United States was mailed a questionnaire regarding memory for traumatic events. Among respondents who reported some form of trauma (72%), delayed recall of the event was reported by 32%. This phenomenon was most common among individuals who observed the murder or suicide of a family member, sexual abuse survivors, and combat veterans (Elliot, 1997). [vi]

- Study: The most definitive study on delayed recall was a non-clinical sample of adult survivors whose sexual histories had been documented at the time of the abuse (Williams, 1995).[vii] Between 1973 and 1975, 206 girls aged ten months to twelve years had been examined after a report of sexual abuse. Seventeen years later, 38% of 129 of the 206 subjects (i.e. those who could be located) had not recalled the abuse when interviewed. [viii]

View of professionals

In a survey of psychologists, 73% stated that they had personally seen a case they classified as 'recovered memory'.[ix] Less than 10% of experimental psychologists and less than 5% of clinical psychologists hold the point of view that accurate recovered memory is not possible.[x]

The American Psychological Association's Working Group on Investigation of Memories of childhood abuse agreed that: "..it is possible for memories of abuse that have been forgotten for a long time to be remembered" (p. 993). The International Society for Traumatic Stress Studies (1998) found that there was a consensus across scientists of North America, Europe, Australia and New Zealand that:

1) traumatic memories are usually remembered in part or in whole
2) traumatic memories may be forgotten, then remembered at some time; and
3) illusory memories can also occur.[xi]

In considering allegations of sexual assault, the literature indicates that false allegations constitute a small proportion of cases and are not a common occurrence. A review of false allegations of sexual abuse in the Family Court in South Australia concluded that approximately nine per cent of allegations were false. Brown, (2003), (cited in Crime and Misconduct Commission, 2003) [xii] suggests that the commonness of traumatic amnesia is expressed not only by those in the therapeutic community, but also by legal scholars arguing for amendment to legislation.

It is important to consider the source of the report of false memory, especially of CSA, e.g. when the source of the report is the person accused of abuse, a perpetrator might deny the charges for a range of reasons.[xiii] It is also possible that perpetrators 'forget' or block out the abuse just like victims of CSA can.[xiv]

- Study: A national sample of psychologists was asked whether they had been abused as children and, if so, whether they had ever forgotten some or all of the abuse. Almost a quarter of the sample (23.9%) reported childhood abuse, and of those, approximately 40% reported a period of forgetting some or all of the abuse (Feldman-Summers et al., 1994).[xv]

Dissociation

Dissociation is the mechanism most commonly used to explain traumatic amnesia followed by recovered memory. The DSM-IV- TR (American Psychiatric Association, 2005) asserts that dissociation is normal, particularly in highly traumatic circumstances, and defines dissociative disorders as "a disruption of the usually integrated functions of consciousness, memory, identity or perception of the environment," (p.519).

Dissociation describes the disconnection or lack of connection between things usually associated to one another. Dissociated experiences are not integrated into the psyche of the individual, resulting in discontinuities in conscious awareness (The International Society for the Study of Dissociation, 2004). Acute dissociative responses have been identified in survivors of overwhelming traumas such as combat, sexual abuse, accidents and natural disasters.[xvi] [xvii]

Dissociation occurring at the time of the trauma theoretically leads to a fragmentation of memory. The memory fragmentation then leads to the individual's difficulty in memory retrieval at a later date. Frequently retrieval is triggered by a similar set of circumstances which resemble the emotional state and/ or physical circumstances to the original trauma.[xviii]

Louis Cozolino, professor of psychology at the Pepperdine University in the USA; author of several articles and books on neuroscience, psychotherapy and the rebuilding of the human brain after trauma, describes reaction to trauma as predictable and connected to well understood biological processes (2002). In the absence of a supportive context, creating the neurobiological conditions for the reestablishment of neural coherence through integration of cognition, affect, sensation and behaviours, an abused child or traumatised individual may remain dissociated from the trauma forever.[xix]

- Study: A prospective study of six people with different types of trauma. All reported gaps in their memory which occurred at the moment of their greatest fear (Yovell et al., 2003.[xx]

Dissociation is a key concept in a range of disorders such as PTSD and dissociative identity disorder. Key components to an acute dissociative response: derealisation (alteration in sense one's perceptions), depersonalisation (alteration in one's sense of self and connection to one's own body), and memory disturbances (van de Kolk et al., 2005). [xxi]

Dissociative Amnesia

In the DSM-IV TR dissociative amnesia is "characterized by an inability to recall important personal information, usually of a traumatic or stressful nature, that is too extensive to be explained by normal forgetfulness," (American Psychiatric Association, 2005, p. 519). Dissociative amnesia is suspected if there are gaps or blank periods in a person's autobiographical memories.

During a traumatic experience such as an accident, disaster, or crime victimization, dissociation can help a person continue to function and tolerate what might otherwise be too difficult to bear. A person may dissociate the memory of the place, circumstances, or feelings about the overwhelming event; mentally escaping from the fear, pain, and horror. This may make it difficult to later remember details of the experience, as reported by many disaster and accident survivors.

For people repeatedly exposed to traumatic events, especially in childhood, dissociation is an extremely effective coping 'skill' which characteristically becomes reinforced and conditioned. It can protect them from awareness of the pain in the short-term. However, over time, frequent dissociation affects a person's sense of their history and who they are .More frequent dissociation results in serious dysfunction in school, work, social, and daily activities, especially when under stress.

- Study: A prospective study of 129 reported cases of child sexual abuse in a community sample of women, 17 years after sexual abuse and evaluated in a hospital emergency room found one in 10 women (16% of those who recalled the abuse) reported that at some time in the past they had forgotten about the abuse. There is no evidence from this study that recovery of memories was fostered by therapy or therapists. The study looked at the accuracy of the recall and concluded that recovered memories of child sexual abuse reported by adults can be quite consistent with contemporaneous documentation of the abuse. [xxii]

Traumatic amnesia may last for hours, weeks or years and recall can be triggered by sensory or affective stimuli reminiscent of the original event. This phenomenon logically occurs outside of the victim's ability to, *"consciously will a memory into existence,"* (Cossins, 1999).[xxiii]

Traumatic memories

Traumatic memories are encoded in a particular way and stored as implicit memories. Implicit (sensory) memory refers to the behavioural knowledge of an experience and features the recording of sensory, kinaesthetic and emotional aspects of an event but without conscious recall. People who have been traumatized may live with implicit memories of the terror, anger, and sadness generated but with few or no explicit memories to explain the feelings.

People who have experienced trauma relive their traumatic memories as flashbacks or in nightmares and over time the recalled memories are stored as narrative or explicit memory. Over time the traumatised individual develops a narrative of his/her past laying down explicit (narrative) memory which includes the traumatic past and with it the ability to consciously recall facts or events related to it. [xxiv]

Trauma causes arousal of the autonomic nervous system, producing a flight/fight response, with increased activation of the limbic system, which controls emotion and the inactivation of Brocca's Area, the area related to language. The amygdala, in the limbic system regulates fear, anger and aggression as well as memory, while the hippocampus, which is very sensitive to stress, is also involved in memory and emotion. Trauma stored in the limbic system processes emotions and sensations, but not language or speech. Neurological research on dissociation [xxv] shows that trauma leads to fragmented, emotional and sensory memories without an awareness of the actual events, and no verbal component to the memory.

Acute dissociative states which are more likely to occur when in a state of terror or high stress lead to poor encoding of a traumatic event. When in such a state, individuals undergo a shift from explicit memory to implicit formation, in which access to conceptual-linguistic thought processes is severely restricted, and involves actual neurological changes in the limbic system.[xxvi] This means that during trauma, sensations and perceptions fail to be integrated as a conscious memory.[xxvii] ,[xxviii] Rather they are encoded as implicit memories - images, smells and sounds, sensorimotor modalities and somatic sensations.[xxix] ,[xxx]

When individuals encounter similar sounds, smells and sensations to the original trauma (i.e. when the encoding and retrieval contexts match), feelings of terror can re-emerge and trigger the memories.

Electroencephalograms (EEG) and MRIs show that physically, sexually and psychologically abused children and adults and combat veterans have reduced left-sided hippocampal size. As previously stated the hippocampus is very important for learning and memory and is very sensitive to stress activation. Additionally, danger or threat affects the hippocampus and connected cortical areas ability to store certain types of information (such as verbal), while effectively storing others (such as non-verbal) [xxxi]

When people recover traumatic memories they are often left reliving fragments of the original trauma but are unable to articulate what is happening, as they are often overwhelmed by the terror of what is happening. An autobiographical narrative is developed when an individual has a sense of personal ownership of the memory and the events the memories convey.

The narrative memory, which can be intentionally retrieved and does not depend on situational triggers to be brought to mind adds cohesion to personality over time and establishes context. This enables a narrative to be conveyed to a listener, which is verbal and time-condensed - they become stories which are flexible and adapted to a particular audience. They are not like a videotape of the memory but reconstructive in nature – condensed and symbolised.

- Study: A study of 17 patients who reported both continuous and recovered memories for abuse in therapy provided sources of evidence for the validity of memories and indicated that details of continuous and recovered memories were equally accurate. More than 1/3 of the alleged perpetrators confessed to at least one act of abuse contained within a recovered memory (Dalenburg, 1996).[xxxii]

Traumatic Amnesia –research

Animal and human participant research has documented impairment of memory after periods of great stress or fear. Stress interferes with the encoding of memory. The science of memory has always supported the existence of impaired memory and recovery of memory for aversive or traumatic events. If memory can be undermined and rendered less available by high stress, and if important facets of trauma memory can be lost even days after an event, it follows that a portion of child sexual abuse survivors would have poor memory of their childhood traumas, especially years later. By telling stories, individuals reinforce aspects of their narrative memory but with traumatic memory, which is not accessible to recall, less rehearsal and avoidance will produce poorer memory.

- Study: A sample of 450 adult clinical subjects reporting sexual abuse histories were studied regarding their repression of sexual abuse incidents. A total of 267 subjects (59.3%) identified some period in their lives, before age 18, when they had no memory of their abuse (Briere & Comte, 1993).[xxxiii]

Effects of cortisol on memory impairment appear with greater magnitude in delayed rather than in immediate tests, suggesting interference of stress with encoding of trauma material.[xxxiv] Similarly, low dose epinephrine injected directly into the amygdala of animals facilitates memory function, whereas higher doses impair memory for the same task.[xxxv]

- Study: A study of Posttraumatic stress associated with delayed recall of sexual abuse in the general population reported that 42% of participants with a history of sexual abuse, described some period of time when they had less memory of the abuse than they did at the time of data collection (Elliot & Briere, 1995).[xxxvi]

False Memory Debate:

The debate on "recovered memories" and "false memories" dominated media coverage on child abuse for much of the 1990s. Science has increasingly affirmed the existence of traumatic amnesia and the reality of "recovered memories".

- Study: In one retrospective study approximately half of those who reported memory loss also reported corroboration for the abuse (Feldman-Summers & Pope, 1994). [xxxvii]

False Memory Syndrome:

The term False Memory Syndrome was created in 1992 by the False Memory Syndrome Foundation (FMSF). It is "a pseudoscientific syndrome" that was developed by individuals and families to defend against claims of child abuse. The primary purpose of the syndrome was to discredit the testimony of people alleging child sexual abuse in court. No empirical validation has been offered for the syndrome, nor have the symptoms been described and studied.

Questions surrounding therapeutic techniques:

The FMSF claims that "False Memory Syndrome" is caused by "Recovered Memory Therapy". There is no psychological therapy called "Recovered Memory Therapy", and the term was invented by the Foundation in 1992. However some therapeutic techniques have been called into question when associated with recovered memories of child sexual abuse. xxxviii The most controversial of these techniques include hypnotism, guided imagery / visualisation, dream interpretation and interpretation of body memories.

The Royal College of Psychiatrists in Britain has officially banned its members from using therapies designed to recover repressed memories of childhood abuse. The British Psychological Society, in a 1995 report urged therapists to "avoid drawing premature conclusions about memories recovered during therapy." The report also denied that there is any evidence suggesting that therapists are creating false memories of abuse in their patients, a charge levied by members of the False Memory Syndrome Foundation.

Researchers caution that both hypnosis and guided imagery can induce dissociative states and therefore may increase the risk of suggestibility and the recovery of false memories. [xxxix] In Australia, clinical standards and guidelines state that clinicians should not initiate searches for memories of abuse or engage in any "memory recovery techniques" designed to elicit memories of abuse about which the client has no memory. [xl] However, it is important to recognise that whatever memories individuals recall, whether traumatic or pleasant, every instance of recall is a process of individual reconstruction, and therefore involves some degree of distortion (Hopper, 2008.) [xli]

The additional issue is whether a therapist's questions or comments are excessively suggestive or directive.[xlii] It is important to ensure that the client is the one leading any process in which memories are being recovered including the interpretation of that material, rather than suggesting any particular interpretation of the material which arises – i.e. to follow the principles of non-directive practice.

Critics of recovered memory also report that some therapists tell patients who report no history of CSA, that their symptoms indicate repressed memories of CSA, that many patients cannot recollect their abuse, but that healing depends upon recovering memories of abuse, (in: Lindsay, 1994).[xliii]

The issue has been stated as the need to distinguish between (1) those cases in which someone knows and has always known that he or she was abused, from (2) those cases in which someone independently remembers forgotten memories, from (3) those cases in which a therapist facilitates recall of forgotten memories, from (4) those cases in which a therapist suggests memories of abuse.[xliv] Unprofessional practice, it has been suggested should be classed in the latter phenomenon.

- **Study**: Two prospective studies in which participants had been abused 16 to 18 years earlier and the abuse had been corroborated by medical or social services. One study 26% of participants were either unable to clearly remember details of the abuse or could not recall the verified abuse.[xlv] In the other study 38% did not recall abuse or chose not to disclose it (Williams, 1992).[xlvi]

In 1997, Herman & Harvey reported that the data from their clinical study suggested that "delayed recall of childhood trauma is often a process that unfolds over time rather than a single event, and that it occurs most commonly in the context of a life crisis or developmental milestone, with a trauma-specific reminder serving as a proximal cue to new recall." Psychotherapy was not implicated in the early stages of delayed recall in most cases. However, "retrieval of memories, once begun, proved to be a powerful incentive for entering psychotherapy." Herman and Harvey found that patients usually did not seek therapy in order to recover more memories, rather they sought to gain more control over intrusive, involuntary re-experiencing of the trauma and wanted to make sense of the fragmented, often confusing and disturbing recollections they already had (p.567).).[xlvii]

Furthermore Herman and Harvey (1997) wrote that the proper role of psychotherapy is to provide confidential environment that is empathic and non-judgemental, and where uncertainty, complexity and ambivalence are tolerated. A stance of open-minded, reflective curiosity should prevail. Within such an environment, with careful pacing, exploration of abusive childhood experiences may be carried out safely. The purpose of such exploration is not the forensic documentation of facts, but the construction of an integrated, personally meaningful narrative that helps free the patient from the persistent noxious effects of traumatic events in the distant past" (pp.568-569).[xlviii]

Summary:

Complete or partial memory loss is a frequently reported consequence of trauma, particularly childhood trauma and most commonly, child sexual abuse. Traumatic amnesia refers to the full or partial recovery of such memories after a gap of some years. Amid the controversy surrounding the existence of the concept and therapeutic treatments associated with the recovery of traumatic memories, professional associations such as the Australian Psychological Society (APS, 2000) and Psychotherapists and Counsellors Federation of Australia (PACFA) have developed or are developing ethical standards and guidelines for practice related to recovered memory to protect clients and assist in dealing with reports of recovered memories in therapeutic, forensic and scientific contexts. [xlix]

These guidelines support the evidence outlined in this paper, regarding the possibility of complete or partial memory loss as a result of trauma. There is general agreement that memories of such experiences may be incessant, intrusive, complete, selective, fragmented, distorted or absent depending on the context and nature of the abuse and the survival strategies available to the individual as a child or as an adult in later in life; that all memories are susceptible to revision and influence from the time of encoding up to and including the time and context of retrieval, as well as in the disclosure and reporting process; and that the percentage of child sexual abuse experiences that (a) are recalled for the first time during therapy and (b) are the subject of litigation, is very small in comparison to those that are remembered but unreported, and whose effects may or may not require treatment. [l]

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