

Practitioner Perspective

Addiction and the Trauma Experience

By *Graham Gill-Emerson*



At a time in society when we are experiencing a paradigm shift in people talking publicly about their struggles with mental health (See Change, 2012), there remains a very clear stigma and separation associated with addiction (Citywide, 2016; Turning Point, 2016).

The discourse around addictive behaviour in the mental health community can be lively and at times divisive (Dual Diagnosis Ireland, 2018). It has the potential to exclude clients from much needed support with many mental health services at times withholding treatment until the addiction is addressed and vice versa. The National Advisory Committee on Drugs reported that both addiction (58%) and mental health (43%) services reported exclusion criteria applied to people with a dual diagnosis

(MacGabhann et al., 2004).

There are many theories as to the origins and maintenance factors of addiction, many locating it at some point or another within the biopsychosocial paradigm. It is often identified as a behavioural issue, a moral issue, a social issue or a disease (Abel & O'Brien, 2014).

Given the separate perspectives of what addiction could be one wonders if there is a unifying theoretical perspective that could offer a container to hold aspects of each theory. Such a critical piece of the addiction jigsaw would have to fit the various addiction treatment perspectives while offering a unifying element that could weave each together.

To that end, this article will offer an exercise in panning out, exploring addictive behaviour through a broader biopsychosocial

lens framed as a coping strategy (mal-adaptive or otherwise) amplifying and/or stemming from the existence of a trauma history.

Trauma

Trauma is an experience that fundamentally alters how we interact with the inside and outside world by modifying our body and brains so that we become intrinsically reactive to triggers in our environment. In a nutshell, trauma is the result of a real or perceived life-threatening event, or series of on-going abuse or neglect, that is imprinted on the brain in such a manner that any reminder of the event (direct or indirect) send the person into a fight/flight/freeze/faint response.

Trauma impacts the quality of life affecting sufferer's mental health, relationships, work and self-concept. A traumatising event can move individuals from the experience of 'happening in the world' to individuals that experience 'the world as happening to them'.

Trauma can span from neglectful or abusive experiences in childhood up to singular grand events throughout the lifespan. When thinking of trauma it is helpful to identify it through two factors of the frequency and intensity of the event(s). Frequency looks at what history of traumatic events an individual has experienced and explores the types of trauma that may have occurred. Types of trauma can include single or multiple incidents, developmental trauma where one

grows up experiencing abuse or neglect and intergenerational trauma where one's grows up around traumatised caregivers. When considering trauma, one should reflect on the age of first onset. This can aid the therapist in identifying the level of internal resources developed before the event(s) took place and aiding the therapist in treatment planning (Rothschild, 2000).

Intensity refers to the extent of the psychological shock experienced. Big 'T' traumas are experiences that would be overwhelming to just about anyone and that often involve perceived life threatening and bodily integrity components, such as assault, road traffic collisions, or hostage situations. whereas Small 't' traumas are upsetting circumstances that life throws our way and if not integrated into our system of understanding have the potential to accumulate and cause as many issues as big 'T's (Shapiro, 2001).

The roots of how trauma develops are found in how the brain manages terrifying events. Our brains are hard wired with a set procedural response to frightening situations as a means of optimising the likelihood of the individual's survival (Levine, 1997). These procedural response (fight/flight/freeze/faint) are aligned with the physical structures of the brain.

The triune brain is a model (See Fig 1) of understanding the topographical structure of the brain through the evolution of the human species (McLean, 1990). It points to three distinct levels of operation in us all:

- The reptilian brain is the oldest part at the base of the brain and is responsible for fight/flight/freeze/faint responses

- The limbic or mammalian brain is responsible for emotion
- The neo-cortex or neo-mammalian brain is responsible for complex thinking (strategizing, language, etc.)

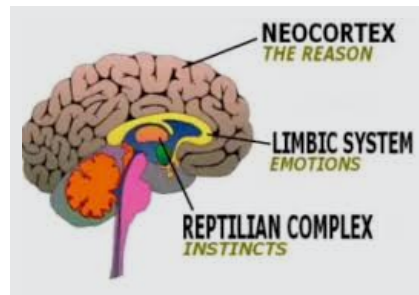


Fig 1: The Triune Brain Model

When as humans we perceive ourselves to be in immediate danger, our neo-cortex is shut down as function switches to the survival protocols of the reptilian brain. The reason for this is that when one's life is in immediate danger, time spent strategizing can be fatal and decisive action takes precedence.

The trouble arises when one experiences a situation as traumatic and is unable to integrate it. One of the residual effects of trauma is the reptilian and limbic brain remaining engaged and in a heightened state (hypervigilance) seeing and feeling everything as a possible danger and reacting to meet it. Bessel Van der Kolk (2014) likens this response to a faulty smoke alarm set off by the most innocuous of

triggers.

Such toxic stress has been found to have profound negative implications across the lifespan. This dynamic has been looked at through the Adverse Childhood Experiences study, one of the biggest trauma studies ever to have been conducted (Shonkoff & Garner, 2012).

Adverse Childhood Experiences

The biopsychosocial strands of how trauma can affect negative life outcomes are best demonstrated through the Adverse Childhood Experience (ACE) Study conducted by Felitti et al. (1998) in conjunction with US Centre for Disease Control (CDC) and Kaiser Permanente Hospital in California.

The study, carried out on some 17,000 individuals, explored the relationship between traumatic childhood events and later negative life outcomes. A series of questions across three domains of abuse, neglect and household dysfunction are tabulated to give a score from low adverse childhood experiences (ACE's) at 0 and a maximum ACE score at 10.

The researchers demonstrated a dose response of childhood trauma to the increased likelihood of many negative life events.

They showed that an ACE score of three marked the pathological threshold, meaning that any one of us could have up to three ACE's and remain relatively well. They found however that after this point, susceptibility to negative life experiences and thus propensity

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for further traumatisation get progressively worse.

With an ACE score of four they found that over half of such individuals report having a learning or behavioural problem, rates of depression were 5 times higher and this group were 12 times more likely to attempt suicide in their lifetime. People with this score were also 6 times more likely to have been raped and 7 times more likely to have an addiction to alcohol.

At an ACE score of six individuals were 46 times more likely to be involved in IV drug use and their likelihood of attempting suicide jumped to being 50 times more

likely in the lifetime. At a biological level, the toxic stress encountered by having such a high ACE score resulting in the group (ACE of six) being twice as likely to have had cancer and four times as likely to suffer from emphysema.

Though this study was first conducted within a private hospital with middle and upper class individuals with health insurance, it has been replicated across many communities of various socio-economic backgrounds and has maintained an exceedingly high rate of correlation in its results. The Center for Disease control's Behavioral Risk Factor Surveillance System (BFRSS), an annual study across 32 US states noted that 'regardless of the data source, study findings repeatedly reveal a graded dose-response relationship between ACEs and negative health and well-being outcomes across the life course.' (Centers for Disease Control & Prevention, 2016).

Felitti et al. (1998) hypothesised the mechanism below (See Fig 2) by which increased ACE's impact

biopsychosocial development ultimately limiting an individual's ability to actualise and increasing the susceptibility to further trauma, disease, social issues and early death. It's results as they pertain to addiction offer greater insight in to its traumatic origins.

Trauma as a predictor of addiction

Those presenting with a dual diagnosis of addiction and trauma is more common than not in the addiction treatment field. Back et al. (2008) found that two thirds of people seeking treatment for substance use disorders report one or more traumatic life events while Jacobsen et al. (2001) found that up to 75% of clients presenting with addiction have comorbid histories of trauma.

Najavitz (2002) found that of the clients sampled in substance abuse treatment 12% – 34% have current post traumatic stress disorder; looking at women alone these rates increased to between 33% – 59%. With rates of trauma this high in those attending substance abuse treatment one can only imagine the levels for trauma in the broader substance abuse community, particularly those that do not manage to access treatment.

The research seems unambiguous on the co-morbid nature of addiction and trauma with a number of authors suggesting a functional relationship between both disorders, which is largely supported by empirical evidence (Van Dam et al., 2012). Such empirical evidence points to a crossover in the dysregulation of hormonal systems found in those that suffer from both conditions.

Systems of Dysregulation

As can be seen in the ACE pyramid, trauma (and especially

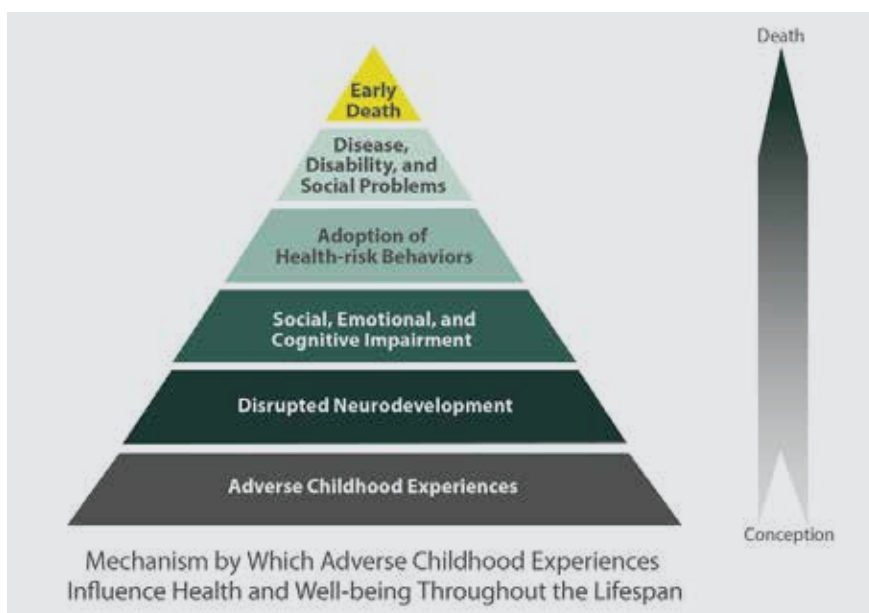


Fig 2: The ACE Pyramid (Felitti et al., 1998).

early life trauma) can disrupt neurodevelopment. Just as dysregulation occurs in the physical structures of the brain, similar dysregulation is present at a hormonal level.

The Dopamine System

The dopamine system is the system at play when people become triggered by the people, places, things and emotions associated to their addictive behaviour. It is the chemical system responsible for motivation and when dysregulated (too much or too little) prevents the addicted person from rationally weighing up the short term positive effects of behaviour from the longer term negative consequences. Dopamine dysregulation is implicated in the fixated 'now, now, now' mentality and it is often reflected through the addicted person's pendulation between instant gratification and extended lethargy.

Additionally, there is evidence that trauma also disrupts this system having been implicated in post-traumatic depression (Ogden, Milton & Pain, 2006) and in trauma triggering when there is a re-division of energy through the central dopamine mechanism, away from the planning and thinking mode of the neocortex to the survival mode of the reptilian brain (DeBellis & Zisk, 2014). Such diversion of energy has implications in the individual suffering from addiction and/or trauma as it prevents the use of coping strategies they have learnt in treatment as the area of the brain (neo-cortex) needed to carry out such responses becomes unavailable. In essence, the lack of availability of the pre-frontal cortex highlights why teaching clients to master grounding techniques must come before any other sort of refusal or relapse prevention

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skill as it is integral to recovery management for either or both conditions.

The Endorphin System

All addicted people experience a dysregulation of the dopamine system (Hall, 2013) but some experience imbalance within a further system.

Endorphin dysregulation is not as universal to the addictive experience as it is only present in certain people who are addicted. Endorphin is an opiate-like chemical and like other opiates is a powerful soother of both emotional and physical pain. It holds a crucial role in infant – mother bonding; known as the chemical of emotion, it is regulated through childhood nurturing and thus its dysregulation is most commonly found in those who have

experienced childhood neglect and/or abuse (Maté, 2010). Dysregulation in this system is marked by an inability to self-soothe and create and maintain secure attachments.

The endorphin system regulates through social connection and is compromised by the social contraction or isolation that characterises both the experiences of trauma and addiction. In addiction it can be fed or 'self-medicated' through behaviour like sex when it involves intimacy or through substances like heroin which has been described as 'a warm soft hug' (Maté, 2010).

The three compromised domains are implicated in Paula Hall's (2013) OATs Model (See Fig 3) around the origins of sex addiction, though this theory can be generalised to aid in the

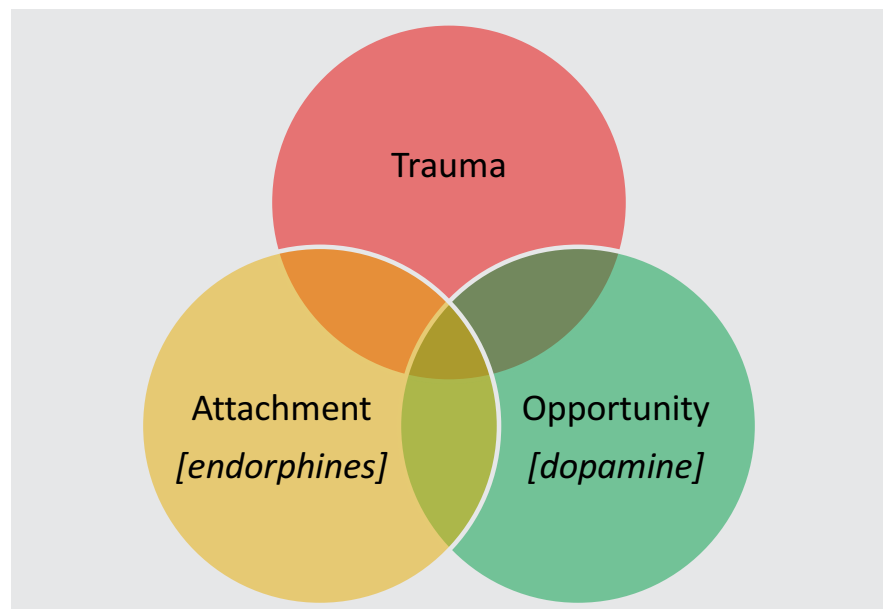


Fig 3: The OATs Model (Paula Hall, 2012 - italics added by author).

The Modulation model offers an elegant understanding of the trauma-addiction interaction and a visual aid in our understanding of the self-medicating nature of addiction.

understanding of any addiction be it acted out through process (behaviour) or substance.

Trauma ultimately erodes resilience and our own sense of self concept. It decreases our feelings of control, our ability to maintain relational connection and to tolerate emotional distress. The Modulation Model (Ogden, Minton & Pain, 2006) offers an elegant depiction of the emotional effects of trauma and how they can be managed through addictive behaviour.

Distress Tolerance

Modulation theory posits that we all have a window of tolerance (See Fig 4), this window is wider for some and narrower for others and that this window signifies the amount of emotional arousal (happy, sad, mad, glad, etc) that we are able to experience comfortably at any given time while the periphery of this window marks the transition of where we will move into states of either hyper (fight/flight) or hypo-arousal (freeze/

faint).

Trauma, be it Big 'T' or Small 't' narrows this window resulting in less and less lower and lower levels of arousal launching the person out of their tolerance zone. Addiction to substances or behaviours can be seen as a means of self-medication in order to regulate an individual's levels of arousal with the ultimate goal of re-entering their optimal arousal zone. This is accomplished by using substances or behaviours that sedate (heroin, sleeping tablets,) when one is hyper-aroused and using substances or behaviours that stimulate (gambling, sex, cocaine, speed) as a means of bringing individuals up into our window at times of lethargy and flatness (hypoarousal).

The Modulation model offers an elegant understanding of the trauma-addiction interaction and a visual aid in our understanding of the self-medicating nature of addiction. It outlines a

means through which recovery can be achieved through ego strengthening as a means of widening the individual's window.

Treatment Implications – Affecting Provision

Utilising a trauma lens in our work with people who experience addictions, while not changing the core philosophies of current treatment approaches, can offer framing, insight and understanding to both the therapist and client insulating against further traumatisation and/or early discharge. Common issues such as those highlighted below can be understood in a newer and more compassionate light.

- Clients presenting as resistant or 'non-compliant' can be re-framed as having underdeveloped coping strategies, retiring and replacing the age-old reference to our clients not having reached rock bottom with a pro-active emphasis on ego-strengthening.
- One can gain greater understanding of power dynamics in the context of trauma symptomology. Given that many traumas often have a theme of one person controlling and having power over another, transference issues can be prevalent and should be expected. In this context power struggles are seen as a client's attempt at establishing control in the therapeutic process, thus creating a felt sense of safety.
- One can expect the re-emergence of trauma symptoms as clients' detox or sample cessation of addictive behaviour. Research in this field has not only pointed to this dynamic but notes that paradoxically unless addictive behaviour and co-occurring

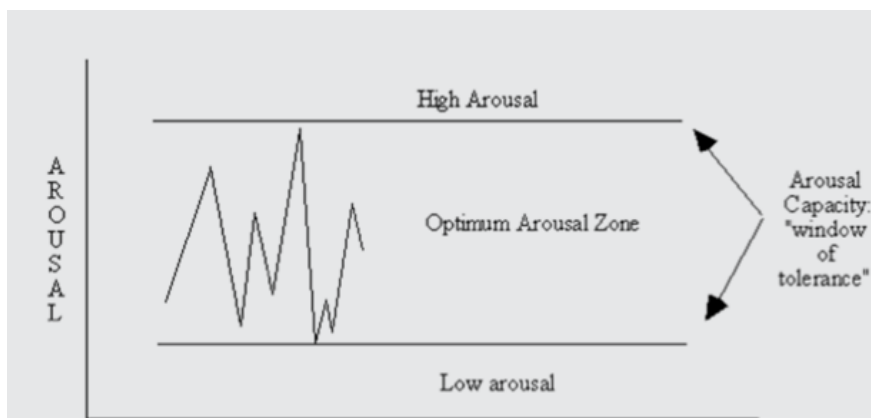


Fig 4: The Modulation Model (Ogden, Minton & Pain, 2006).

trauma are treated together, both abstinence or substance abuse may make trauma symptoms worse. (Najavits, 2002). Early emphasis on ego strengthening through mastering new coping strategies can minimise and even prevent trauma symptom re-emergence.

- High frustration, drama, lethargy, apathy or inflexibility of process in the therapist or agency staff can be explored in the context of vicarious and secondary trauma. Sufficient self-care given the trauma proximity is a priority to ensure emotional safety for the therapist. Strong therapist self-care also models the importance of creating emotional safety to the client.

Treatment Implications – Effective Provision

The utilisation of a trauma lens is not an attempt at offering an alternative model of treatment but instead offering a value-added perspective to the current models being utilised.

Models and therapists wishing to become trauma informed in their interventions and treatment episodes may offer consideration to the addiction recovery process following a similar track and indeed integrating Herman's (1997) trauma recovery process three stage model of Establishing safety, Remembrance & mourning and Reconnecting with and ordinary life:

1. Establishing safety encompasses everything from creating a secure environment, teaching grounding techniques, making efforts to equalise the power dynamic, and many more. It pushes us to understand our client's history and take cognisance of it when examining

Trauma ultimately erodes resilience and our own sense of self concept. It decreases our feelings of control, our ability to maintain relational connection and to tolerate emotional distress.

their and our own interactions. It creates movement from reaction to responsiveness, enabling greater capacity for grounding and reflection through ensuring the pre-frontal cortex remains active and is not hijacked by the reptilian and limbic systems.

2. Remembrance and mourning offers a space to explore what has been lost through traumas and addictions as well as offering the context of how they came to be established in the first instance.
3. Reconnecting with ordinary life marks the understanding of the isolation involved in both the addictive and traumatic experiences, emphasising the need to expand the once contracted social connections and re-enter greater society as an active and equal member. This can be done through a tapering off of therapy, checking in with the client as they establish a life beyond their addiction and also through aftercare services in the context of residential addiction treatment facilities.

Conclusion

Despite the evidence of co-occurring trauma in addiction presentations the traditional treatment paradigms both in Ireland and internationally have often chosen to separate trauma treatment from addiction treatment episodes.

Unifying the trauma-addiction dynamic offers a greater

biopsychosocial insight into addictive behaviour through an understanding of the underlying biological structures of the brain and hormonal systems which support addictive acting out as well as understanding the adaptive nature of the behaviour itself.

The trauma lens has the potential to add a value added perspective to all humanistic addiction treatment models or ideologies without weakening their theoretical underpinnings. Integrating trauma work into an treatment plan for addictive behaviour, be it in a treatment centre or private therapy room offers a recognition of the individual's journey and an understanding to the predisposing factors that maintain the behaviours. Such understanding can reduce stigma and inform the treatment episode to produce a clearer treatment plan, thus adding clarity for both client and therapist in the creation of a more robust recovery. ☺

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Graham has a keen interest in how addiction and traumatic experiences interact and in the creation of evidence based service delivery approaches to meet this complex dynamic. He is currently involved in research studying the relationship between childhood trauma and negative life outcomes in the homeless community in Cork and he is partnered with the HSE and UCC in the implementation of this study.

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