SENSORIMOTOR-FOCUSED EMDR

PSYCHOTHEARPY AND

A NEW PARADIGM FOR PEAK PERFORMANCE

ART O'MALLEY

August 2021

FEATURE

PREFACE

Combining sensorimotor therapy and EMDR, both neurobiologically informed psychotherapies, allows us to integrate with the original Greek derivation of the word psychiatry – "psyche" and "iatros" which together mean, "healer of the soul". I call this approach Sensorimotor-Focused EMDR or SF-EMDR. Francine Shapiro regretted the term EMDR as it generated controversy in relation to the necessity of eye movements for effective reprocessing. She stated in the preface to *Small Wonders* (Lovett 1999) that in hindsight she would have used the more general term "Reprocessing Therapy".

I use the term "Reprocessing Therapy" to include any therapy that seeks to convert sensory information that is stored in the form of a trauma memory into long-term memory. I will show that this information can then be stored ecologically at a hippocampal level in long-term memory which means it is no longer charged with powerful disturbing negative affect. The pathognomonic feature of Reprocessing Therapies is that the client can be maintained in their Window of Tolerance during processing.

Examples of reprocessing therapies are: EMDR, Sensorimotor Psychotherapy, Somatic Experiencing, The Rewind Technique, Trauma Releasing Exercises, Attachment Focused EMDR, energy-based approaches such as Emotional Freedom Therapy (EFT), Equine Assisted Psychotherapy and newer approaches such as Mirroring Hands (Hill & Rossi, 2018). In order to bring coherence to this field, common standards need to be applied. The therapeutic approach should evolve to incorporate the latest knowledge on the neurobiology of trauma. This includes the induction of a hypnotic or trance-like state during peripheral bilateral stimulation. This process should induce pontine-geniculate-occipital brainstem waves leading to reprocessing, which is akin to Rapid Eye Movement (REM) during sleep (Stickgold, 2002).

I have found that SF-EMDR can help to integrate the natural healing capacities of the body and mind, thereby optimizing the patient or client's health. In 1948, the WHO proposed a new definition of health to incorporate physical, mental and emotional wellbeing, and not just the absence of disease. Health is also defined as a fundamental human right and should be protected as a universal value.

Now, in 2021, over 70 years later, I propose a more comprehensive model of human health, which considers the impact and chronic burden of trauma and stress in maintaining and causing disease. I suggest a model of treatment-planning based on a recent interpretation of Maslow's Hierarchy of Needs, first published in 1943. It is my opinion that this hierarchal model be also updated to incorporate new neurological, immunological, endocrinological and energetic sources of knowledge at a mind-body level.

Photo by Colin Lloyd on Unsplash

INTRODUCTION

A more comprehensive approach to health and emotional wellbeing is to focus on the deleterious effects that unresolved trauma has on health. Currently health is artificially subdivided by health services in the Western World. Such services neglect the neuroscience underpinning the complete integration of mind, body, spirit, soul and energy field. Scientific understanding of energy field quantum mechanics has come a long way since Einstein's letter to Max Born in 1947 (Born, et al., 2005). In this letter Einstein related how he disagreed with Born's statistical analysis of quantum field mechanics -

> *"I cannot seriously believe in it because the theory cannot be reconciled with the idea that physics should represent a reality in time and space, free from spooky action at a distance".*

The actual phrase used by Einstein was German, *"spukhafte Fernwirkung"*. Spooky or ghostly is the closest translation available.

In my latest book (O'Malley, 2019), I have drawn inspiration from Professor Ernest Rossi to propose the "Quantum Field Model for Psychotherapy". This builds on all the major developments of the last 100 years. My goal is to be inclusive of all other therapies for which extensive quantitative and qualitative evidence exists. A recent map of dark matter shows it to be more spread out than predicted by Einstein in his General Theory of Relativity (*Irish Times*, 2021). As this information is processed and analysed, scientists may have to revise all previous theories of how the universe is constructed. This, I believe, will also lead to new understandings on the inner workings of the human body and mind. Psychotherapy must also evolve in line with this expanding knowledge base.

I would also argue that therapeutic effectiveness is equally influenced by both the therapeutic approach(es) used, as well as the relationship between client and therapist. Carl Rogers (1951) expressed this well when he mentioned empathy, congruence and unconditional positive regard as key factors for effective psychotherapy. Victor Frankl (1946) was another key figure in establishing some of the important aspects of effective psychotherapy. Frankl discussed the use of logotherapy in his book *The Search for Meaning*. In addition, Irving Yalom (1970) suggested four elements of the human condition, namely isolation, meaningless, death and freedom, can be reacted to in a functional or dysfunctional way. Aaron Beck (1967) is credited with the development of Cognitive Behaviour Therapy (CBT). However, when I attended a lecture by the Dalai Lama in Manchester in 2012, he spoke warmly of his friendship and meetings with Beck. He described him as someone with an open approach to psychotherapy and not an adherent of the rigid manualized approach common to current forms of CBT. To my mind, the brain's cognitive capacity for concrete and abstract thought starts to develop around age twelve. Under the age of two, communication is primarily via body language, muscle movements and gestures. As speech develops from the age of three, language tone or prosody of voice, accounts for approximately 20% of communication. The remaining 10% of communication is via the development of speech and language centres in the cortical brain (Broca's and Wernicke's Areas). Knowledge of this chronology of age-related development of language is essential when reprocessing traumatic childhood memories to resolution

and recovery.

For example, children experience feelings, sensations, and emotions via their bodies. Often when upset due to emotional distress, they will present with Acute Nonspecific Abdominal Pain (ANSAP). They are unable to verbalise the origin for most psychologically mediated conditions in early childhood. When treating adult patients with childhood trauma, these early patterns of communication should be addressed and integrated into the therapeutic session.

Helping Clients to Navigate from a disturbed Window of Tolerance to Calm Waters

SF-EMDR is an integration of aspects of two powerful therapies – sensorimotor psychotherapy (SP) and EMDR – such that the sum of both therapeutic modalities is greater than either treatment used in isolation. It is hypothesised that 10% of traumatic and stressful experiences are stored cognitively, with 90% being stored somatically and unconsciously. This is often referred to as the Iceberg analogy, with unresolved traumatic memories stored below surface level (Levine, 1997). This means that the mind (cerebral cortex) is initially unable to make sense of information held at the level of the cell tissues, where the traumatic and stressful event was initially perceived. Combining these therapies brings the unconscious memories into conscious awareness and allows for insight, learning from experience and the development of meaning. During the pandemic, I trained in Deep Brain Reorienting (DBR), a psychotherapeutic approach developed by Dr Frank Corrigan. This treatment involves an approach to healing trauma and attachment shock, by focusing on the emotions, unconsciously stored at a brain-stem level.

Photo by Adrian Swancar on Unsplash

Evolution of the human nervous system

The human Peripheral and Central Nervous Systems have evolved in homo sapiens over millennia. SF-EMDR integrates these systems to resolve traumatic events, based on their potential to enhance therapeutic efficacy. Over the past decade, new knowledge has emerged in the worlds of medicine and science, which has considerably deepened our understanding of the ways in which mind and body interact. This has included the reclassification of the *mesentery* (a fold in the peritineum that connects the stomach small intestine to the posterior abdominal wall) as a body organ, opening up a new field of mesenteric science; and a description of the brain's *glymphatic system* (a network of vessels created by astrocytes that utilise fluids to remove waste from the brain, especially during sleep) which is implicated in depression, Alzheimer's Disease and other neurodegenerative diseases (O'Malley, 2019). Also, the gut-brain and gut microbiome are believed to be involved in the processing of emotions and cognitions (Cryan, 2019). Bilateral stimulation of the cerebellum applied continuously during the therapeutic session – "little brain, big impact" – is central to my approach to SF-EMDR. The role of the cerebellum in trauma was first discovered by researchers scanning the brains of orphans rescued from Romanian orphanages (Beckett, 2003). It was discovered that the volume of deterioration of the cerebellum related to the exposure and duration of abuse and neglect in early infancy. This has long-term implications in the development of psychiatric disorders in adulthood as the cerebellum normally matures by the second year of life.

Integrative Therapeutic Approach for Trauma Informed Psychotherapy

The approach begins with a comprehensive health history, which can take 90-120 minutes to complete. A chronology of adverse or traumatic life experiences is also noted, including any pregnancy or birth-related issues. The traditional focus in medicine is to ask, "What is wrong with you?", whereas my approach is to focus on "What has happened to you?". Historically, psychotherapy has prioritised the 50-minute hour, with this time limit being practised in health services globally. Over the last ten years, I have used the 90 to 120-minute basic rest-activity cycle (BRAC), espoused by Professor Ernest Rossi (2008). This theory suggests that the client or patient is nearing a peak level of arousal around the 60-minute mark, followed by a period of crisis and opportunity. The following 30 minutes involves illu-

Photo by Alexandre Lion on Unsplash

mination, where creativity and insight are experienced, the so-called "lightbulb moment". The final stage is one of reflection, reintegration, and making meaning from the session. I usually apply bilateral stimulation for up to 90 minutes at the level of the cerebellum. This is achieved by placing headphones at the level of the mastoid processes, which emit bilateral auditory beeps. My hypothesis is that this inhibits brainstem-impulsive-reflex responses, to allow new neural networks to be stimulated from the cerebellum, amygdala and thalamus to the prefrontal cortex. Patients and clients report feeling lighter and that a weight has been lifted from their shoulders.

In my experience, five 90-minute sessions of SF-EMDR have proven to be more effective in resolving trauma, as opposed to eight 1-hour sessions. Residential treatment centres in Amsterdam such as ARQ Centrum 45 and Centrum voor Psychotherapie en Psychotrauma provide a similar approach, in combination with physical activities, which take place over a week's duration. This provides further evidence for an intensive approach to trauma resolution. I advocate that therapists not assume one size fits all. The best outcome is when the treatment plan is tailored to individual need as discussed below.

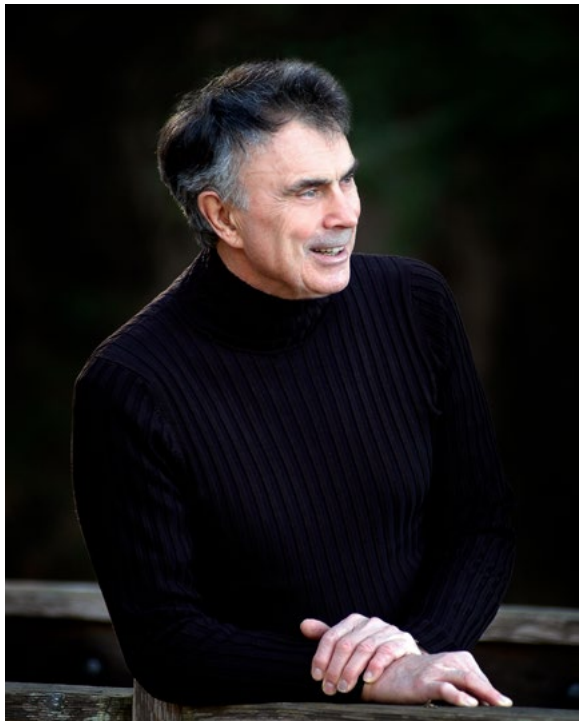
Photo by seventyfourimages

Deep Brain Reorienting (DBR)

Dr Frank Corrigan (2020), an adult psychiatrist based in Scotland, is one of Scotland's leading experts in the field of brain neurophysiology, neurobiology and how this applies to the resolution of traumatic memories. He has integrated the diverse fields of sensorimotor psychotherapy, EMDR and brainspotting. This has led him to realise the importance of the superior colliculus and periaqueductal grey in reacting to the pre-affective shock of a traumatic experience. Corrigan found that by anchoring the feeling of tension in the muscles associated with the onset of the traumatic experience, it is possible for the inner mind's eye to orient to this physical reaction. This moment is processed in ultra-slow motion. Paying attention to the somatic sensations allows the muscular stress and tension to be manipulated both imaginatively and physically. As if lancing a boil or abscess, the toxic negative emotions can be released. It is expected that each patient will have a unique signature of emotional or affective release. Over the course of the session the patient is guided by the therapist to sit with, and deepen the awareness of, each sensation and emotion. This allows the motor end plate and neural networks to be expressed in a way that was not possible when they were entrapped within the deep and superficial brainstem structures. DBR is being evaluated against treatment as usual in a randomized control trial being conducted by Professor Ruth Lanius at her research lab in the University of Western Ontario, Canada.

What I like about this approach is that, once released, the emotion and affect can be reprocessed using my recently developed Sensorimotor-Focused EMDR. My approach has been endorsed by Professor Ernest Rossi (2019), who worked with noted psychotherapist Milton Erickson. In relation to my book, he wrote:

> Wow. This encyclopaedic new volume by Arthur G O'Malley is a profound integration of current and future psychotherapeutic techniques that can inspire students and professionals with everything from the traditional spiritual and humanistic ideals of the past to modern STEM (Science, Technology, Engineering, and Math Education). Arthur O'Malley's New Paradigm for Peak Performance updates our hope and promise of facilitating the best of human nature with a potpourri of compassionate, empathetic and enlightening attitudes that demonstrate how therapists of all schools around the globe can join together in creating a new positive heuristic consciousness for a better world.



Ernest Rossi

In SF-EMDR, the hypnotic or trance state seeks to release the unconscious material that often surfaces when least expected. These unconscious triggers tend to trip up and catch out clients. This causes them to repeat the mistakes of the past, rather than learning from experience.

At the end of the session, patients are asked to reflect on any new perspectives they now have, in relation to the issues discussed. I have observed that patients tend to view their issues differently, compared to how they felt at the start of the session. The information appears to have been reprocessed from a brainstem level via the amygdala and thalamus with eventual registration and processing at a cortical level. The prefrontal cortex, in theory, has by the end of the session, received all relevant sensory, neurological, immune, endocrine, and other physiological information from the periphery. In other words, a bottom-up integration of the traumatic memory has occurred.

Theoretical aspects of reprocessing therapies

As homo sapiens, we have evolved three modes of processing experience: cognitive, emotional and sensorimotor. If we are to satisfactorily resolve life experience, the three modalities must take place sequentially and interconnect with each other.

1. Cognitive processing is one's capacity for cognitive information processing, reasoning, meaning making, thinking and decision making. Cognitive processing necessitates the ability to observe and abstract from experience. This function normally develops by twelve years of age. Effective Therapeutic approaches include Trauma focused (CBT) and Cognitive Processing Therapy (CPT).
2. Emotional processing is one's capacity for a full range of feeling and affect, and the articulation of that feeling and affect. Emotional processing adds emotional motivational colouring to sensorimotor and cognitive processing. Traumatic stress at any age can blunt the progression of emotional development. If this trauma occurs between the ages of eight to ten, the development of the Default Mode Network can be halted with significant implications for therapeutic progress. Any therapeutic process activating disturbed affect impinges at this level of processing.
3. Sensorimotor processing is one's capacity for processing throughout the body. Sensorimotor processing relies on a number of fixed action patterns or procedural behaviour patterns (startle reflex, fight-flight-freeze response, feigned death, and other automatic reflexes) that often take precedence in traumatic and stressful situations. Sensorimotor processing involves activation of these sequential movements with movement impulses, postural changes, orienting responses, physical defensive responses, and arousal symptoms of the autonomic nervous system. During the session the patient or client is made aware of these changes as targets are processed and hypotheses are tested.

HIERARCHY OF NEEDS

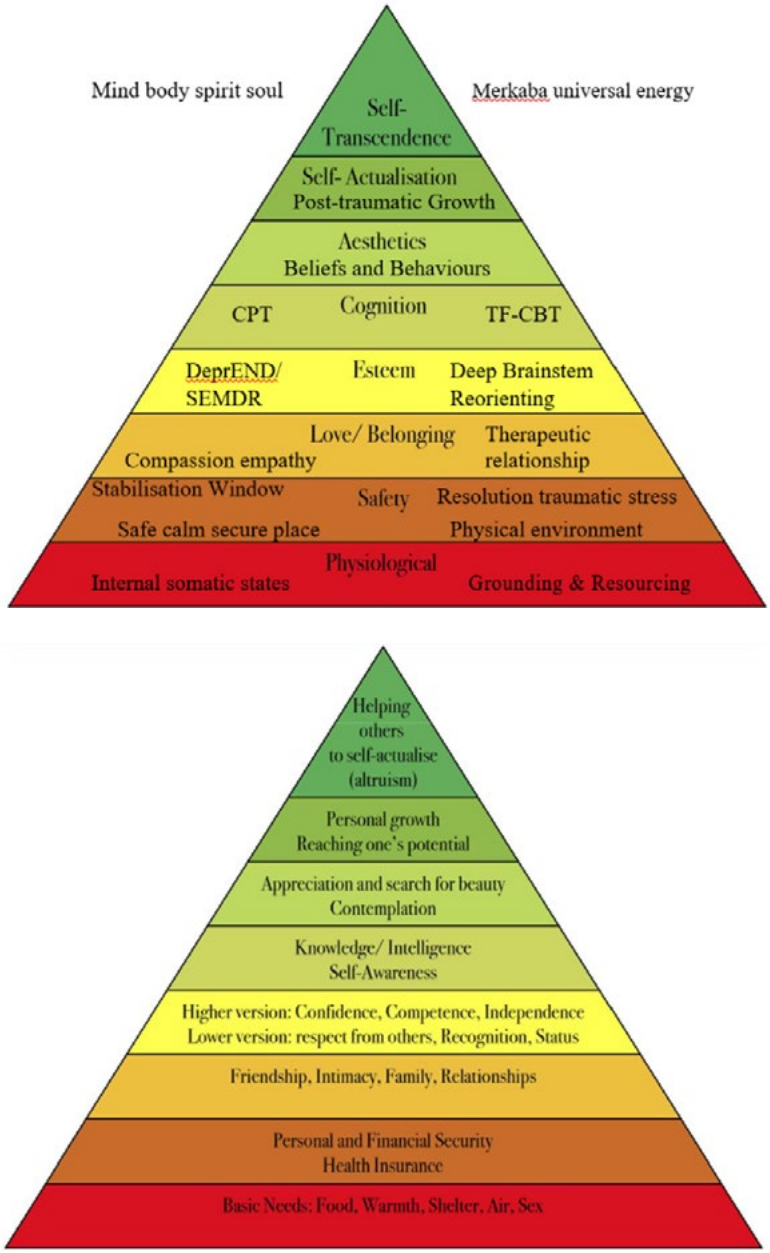


Figure 1. Maslow's hierarchy of needs with therapeutic applications inserted at each individual level of need above Traditional diagram of Maslow's Hierarchy of Needs. These triangles can be superimposed on one another to create a treatment plan consistent with the levels of need in Maslow's hierarchy. As treatment progresses the therapist can map out how many of the 8 levels of need have been met. Unmet needs can then be identified.

These eight-stage models show the traditional hierarchy of needs according to Maslow (1943) and a superimposed hierarchy that maps these needs with their corresponding therapeutic application. The treatment or intervention is designed to address the most significant unmet need first, before progressing up the hierarchy. At the most basic level is the need for food, warmth sleep, shelter, air, and sex. These are often unmet because of poverty, homelessness, drug or alcohol addiction, or criminality and imprisonment. A coordinated approach by governments, NGOs, family support, employment provision, and training may help to give the patient a foot up the ladder where safety needs can be addressed higher up the pyramid.

At this basic level of need, regulation of internal somatic states is required. Stabilisation can be provided via grounding exercises and attuned installation of resources with real or imaginary figures.

A prerequisite for reprocessing of traumatic stress is that the client feels a sense of security. For many immigrants and refugees this place of safety does not yet exist. However, it is possible to establish a safe enough place either in-person or online in the context of the therapist-client relationship. My goal is to alleviate some of the suffering and traumatic burden in our first visit. This offers the patient hope and gives them the motivation to return for subsequent sessions.

The next need is one of love and belonging. Compassion, empathy and unconditional positive regard, within the therapeutic relationship, help to meet these universal human needs.

For the client to develop esteem, many of their traumatic and stressful experiences will need to be reprocessed. Esteem, derived from the Latin *estimate*, means to assess or judge the value of something. When a patient's self-esteem is raised, it is more likely they will have increased self-value and regard. This can be achieved using Sensorimotor-Focused EMDR combined with DBR for major traumas. When there is comorbid depression, the DeprEnd treatment protocols developed by Arne Hoffmann (2021) are extremely effective.

The next level of need is cognition. Aaron Beck developed Cognitive Therapy in the 1960s. This has evolved into Cognitive Behaviour Therapy. Many types of CBT exist but in relation to traumatic cognitions, Cognitive Processing Therapy and Trauma Focused CBT (TF-CBT) have the largest evidence base. However, in my clinical experience, starting with a cognitive approach misses the information stored unconsciously (or somatically) in relation to the traumatic and stressful life experiences. Thus, a bottom-up approach should aim to establish therapeutic foundations in order for a cognitive approach to be effective.

Aesthetics relate to beliefs and behaviours which are inextricably linked to the client's beliefs. Claude Bristol (1948) wrote that all cultures share the idea that, if you believe in something, then it will happen. Positive beliefs are deeply rooted and closely held. A belief can be mental, emotional, spiritual and physical. It is embedded in the head-brain, heart-brain and at a gut instinct level. By tapping into our clients' heartfelt beliefs, they feel supported and uplifted. They can take action and develop purpose in their life. Cognition and aesthetics rely on activation of specific areas of the brain. These are namely the prefrontal cortex and vi-

sual processing areas, associated with the appreciation of art, music, and beauty.

Gandhi believed in a free society for all of India. He is believed to have stated, "Be the change you wish to see in the world". Nelson Mandela suffered and was imprisoned on Robben Island for 27 years in his struggle against the apartheid regime in South Africa. Martin Luther King Jr (Edwards, 1963, p.5) had a dream or belief that one day all people in the United States would not be judged by the colour of their skin.

> *"I have a dream deeply rooted in the American Dream - one day this nation will rise up and live up to its creed. We hold these truths to be self-evident that all men are created equal - I have a dream"*

His actions were dictated by this fight for change which ultimately cost him his life. These iconic figures represent the highest levels of the hierarchy, namely self-actualization and self-transcendence.

When you live your life in the service of others you have reached the highest level of vibration of energy of man. Information is integrated at the level of the mind, body, spirit and soul. The person appears to achieve powers only attributed to God-like figures, such as Jesus, Lord Kuthumi and Buddha. The Jewish believed in the Metatron, associated with the gnostic gospels, and in the Talmud. The Merkabah integrates the light, spirit and body. It is said to provide protection and transport your consciousness into higher dimensions. More of our clients are seeking to connect to a spiritual dimension to add meaning to their lives. This can also feature in the development of post traumatic growth for our clients. The therapeutic session offers patients the opportunity to discuss their spiritual values and beliefs. Quantum field theory of psychotherapy would posit a unitary form of consciousness; a structure whereby each individual self is one part of the greater quantum consciousness. This collaboration of self and whole is infinitely richer than the traditional paradigm of individual consciousness.

Since the recession in 2008, there has been an increase in physical and mental ill health, as well as financial and personal insecurity. Again, mental health services alone are not equipped to meet these safety needs. In my experience, there is little-coordinated thinking within different departments of Health and patients may experience increased levels of unmet needs. Since March 2020, the world has experienced a pandemic secondary to COVID-19.

The resultant waves of infection have caused governments around the world to order lockdowns of the entire population. As most countries are starting to emerge into society, it is becoming apparent that these lockdowns have had a deleterious impact on public health. There is an opportunity, using this model, to design a population-based approach to physical, spiritual and emotional wellbeing.

We all have fundamental human needs for love and a sense of belonging. In the UK there were reported to be 250,281 under 18s who rang Child-Line with suicidal ideation and intent in 2019. Typically, Child and Adolescent Mental Health Services or CAMHS tends in my experience to put a sticking plaster on these cases and seems unable to differentiate non-suicidal self-harm from depression with psychosis, where

the risk of completed suicide is highest. The preoccupation with form-filling documenting risk-assessment has been shown not to prevent suicide attempts, and a different approach is needed. The absence of friendships, intimacy, family affection, healthy relationships, and positive peer groups has, I believe, worsened in the digital age of Facebook, Snapchat, Instagram, and with the pressure to be available to others on a constant basis. Psychotherapy has a key role to play in improving self-esteem. At one level, this involves respect from others, recognition of unmet needs, irrespective of status, reputation, and fame. We live in the world of celebrity, which is promoted by reality television programmes such as Love Island and X factor. Increasingly, teenagers will say that they want to grow up to be famous rather than follow a vocation or other ambition, as would have occurred previously. A more mature form of self-esteem is confidence, competence, and independence. Such values can be achieved in psychotherapy, once the bottom-up processing of the lower needs has been obtained.

Bottom-up and top-down processing in the mind, body and soul

When we decide we want to go somewhere, we voluntarily initiate movement sequences. This is an example of top-down processing. However, once they begin, the sequences are so automatic that they no longer require conscious supervision. Walking, jogging, and even sprinting are controlled by brainstem motor-pattern generators. We 'flip a switch' in our cortex and our lower brain coordinates the motion because that command centre is in the cortex. 'Your decision to walk is one of the many examples of a top-down process' (Hobson, 1994). The activities of very young children and those experiencing trauma are governed primarily by their

sensorimotor and their emotional systems, in other words by bottom-up processes. A child's job is to explore their world through these systems, building the neural networks that are the foundation for later cognitive development (Hannaford, 1995). Wired to be governed by somatic and emotional states, children respond spontaneously to sensorimotor and affective cues. Traumatised people frequently observe how they are controlled by their senses and emotions as they are unable to regulate these functions. For example, someone who has experienced trauma will be dominated by the startle reflex and by defensive or orientating responses. I often explain this to patients by using the analogy of an oncoming ambulance. Our startle reflex is activated by the sound of the ambulance. This triggers an orienting response in the sternocleidomastoid muscles in the neck. We are forced to turn our heads to see the direction from which the flashing blue lights are coming. This shows how sound trumps vision in the hierarchy of senses in information processing.

Bottom-up and top-down reprocessing represent two general directions of information processing. Bottom-up is initiated from the sensorimotor and emotional realms and has an effect on the reprocessing of thoughts. The lower-level reprocessing is more fundamental to the resolution of traumatic experiences and forms a foundation on which higher modes of reprocessing can occur. Top-down reprocessing is initiated by the cerebral cortex and cerebellum and involves cognitions i.e., negative and positive thoughts which are crucial to effective implementation of EMDR therapy. The higher levels of reprocessing monitor, regulate and often direct the lower levels. Peter MacLean (1985) described the Triune Brain, comprising the reptilian, midbrain and mammalian brains. At the lowest level, the brainstem regulates emotional states, and is known as the reptilian brain. Next is the midbrain, which incorporates emotional and sensorimotor integration, while also facilitating socioemotional relationships. Finally, the cerebral cortex or nonmammalian brain mediates abstract thoughts and processes i.e., arts, language, humour and games. This triune brain develops and operates as a unit. The frontal lobes, limbic system and brainstem combine together in a holistic hierarchy. When in brainstem mode, driven by the dorsal vagus nerve and sympathetic overdrive, patients can flip from the rage of fight or flight to being frozen in terror and paralysed with fear. Peter Levine (1997) outlined Somatic Experiencing as a way of reprocessing trauma in his book *Waking the Tiger*.

Photo by Javier Virues-Ortega on Unsplash

INTEGRATION OF SOMATIC STATES. DISSOCIATION MODEL

A. Hyperarousal (Rapids): Racing thoughts; Adrenaline (fight, flight or freeze); Personality fragmented; Impulsive; Disturbed; Swept away by the floods of emotion while in danger of being hit by the rocks

B. Window of Tolerance (Clam Waters): Consious; Aware; Level headed; Mindful; Within window of affect tolerance where emotions are regulated and stabilised.

C. Hypoarousal Associated With Dissociation (Frozen in Fear): Freeze; Frightened; Reaction; Emotionally shut-down; Oblivious; Anxious; Zoned out; Rigid; Emotionally numb.

The interplay between top-down and bottom-up reprocessing holds significant implications for treatment of traumatic memories. The hyperarousal response of white-water RAPIDS can be thought of as: Racing thoughts, Anger outbursts fuelled by adrenaline surges, Personality fragmented, Impulsive, Dissociated and Swept away by the floods of dysregulated emotion while in danger of being hit by the rocks.

Normal arousal or CALM WATERS can be thought of as: Conscious, Aware, Level-headed, Mindful, Window of Affect Tolerance, Emotional Regulation and Stability. When the dorsal vagus nerve becomes activated, the patient experiences a dissociative hypoaroused state – they are FROZEN in FEAR. When the Window of Tolerance is narrow, the patient's state is one of frequent dissociation and SF-EMDR is a useful approach to enable reprocessing by widening the window of tolerance.

Problems in trauma reprocessing stem from an inability to process sensorimotor and emotional responses, as well as suggesting a disconnection between the frontal lobes, necessary for effective cognitive processing. Sequencing of sensorimotor responses are a necessary prerequisite for information reprocessing at emotional and cognitive levels.. When someone experiences a traumatic event, their sensorimotor systems become activated and often become overwhelmed in response to threat. Depending on the burden of trauma experienced by the client, their capacity to process further trauma is limited, leading to a dissociative shutdown. Image C of Figure 2 demonstrates how clients may fall, feign death or experience vasovagal collapse. The consequences are such that the client is unable to speak and thus be unresponsive to standard EMDR protocols. When these functions are overwhelmed, further sensorimotor processing is halted. This means that affective processing at the cortex level is blunted, not only in the moment of the trauma, but also in the future. This lack of interplay between top-down and bottom-up processing can hold these traumatic reactions in place. My approach in SF-EMDR is to integrate emotions, sensations, movements and feelings at a brainstem level. Targeted bilateral stimulation enables additional connections at a brain or cortical level so that patients can find meaning from their trauma.

DISCUSSION

Traumatic events can mimic the sensory effects of an alarm bell ringing, signally threat in the patient's brain. This manifests as a preferential response at a brainstem and limbic system level. In hyperarousal there is a classic fight-flight response at the level of the locus coeruleus, which secretes noradrenaline and adrenaline. This increases the heart rate and occurs classically in older adolescents, especially males. This relates to the precipitation of aggressive instincts when a person's survival is threatened. On the other hand, the dissociative response to threat involves freezing or numbing, which activates the parasympathetic system. This causes the heart rate to decrease and the person to feel shut down or disconnected. This response is common among younger children and adolescent females and is a result of painful, inescapable trauma. This state corresponds to the analogy of RAPIDS and being FROZEN in FEAR, as mentioned above. SF-EMDR, in combination with DBR allows

clients to experience their CALM WATERS. Together, these therapies provide top-down and bottom-up reprocessing. This both widens the Window of Tolerance while also helping the client manage the dissociation associated with the RAPIDS and FROZEN in FEAR states.

SF-EMDR involves an integrated approach to reprocessing of all aspects of trauma and leads to the development of resilience. The essential first step is to identify where the information processing has become stuck at a neuroanatomical/ energetic level. Bilateral rhythmic stimulation, when externally applied, mimics the internally generated patterns of brainstem generated Rapid Eye Movements (REM). I have suggested an integrative model of treatment which is based on Maslow's Hierarchy of Needs. This allows the therapist to focus their case conceptualisation and treatment planning, using the existing hierarchical model which has international validity, as well as a substantial research base.

CONCLUSION

In this paper I have suggested an approach that assesses the different levels of needs for our patients and clients based on Maslow's Hierarchy of Needs. I have transposed an integrated therapeutic approach from a top-down and bottom-up reprocessing perspective. I would suggest that this is relevant for inclusion within an updated version of the World Health Organisation's definition of health.

In this review of therapeutic approaches to psychotherapy, I argue that SF-EMDR, when combined with DBR, is effective as a form of reprocessing psychotherapy. This therapeutic approach also includes theory and practice from the Quantum field of Psychotherapy, pioneered by Professor Ernest and Kathryn Rossi, among others. Thus, the information available at a universal field level is reprocessed from the cortex to the midbrain and from the periphery to the midbrain. Over the last eighteen months there has been an increase in depression and anxiety, associated with prolonged social isolation and lockdown measures among the general population. Tackling this heightened demand for psychotherapeutic services will require new and progressive thinking. The patient's most basic needs must first be addressed before moving up the pyramid. In the words of Professor Ernest Rossi this demonstrates how therapists around the world 'can join together…in creating… a better world'.

REFERENCES

Beck A. T., (1967). *Depression: Causes and Treatment*. University of Pennsylvania Press

Beckett C., & Castle, J. (2003). Health Problems in Children Adopted from Romania: Association with Duration of Deprivation and Behavioural Problems. *Adoption & Fostering* 27(4), 19-29

Born, M., Einstein, A., Born, H., Buchwald, D., Thorne, K. S., & Born, G. (2005). *The Born-Einstein Letters: Friendship, Politics and Physics in Uncertain Time: Correspondence Between Albert Einstein and Max and Hedwig Born from 1916 to 1955*. Macmillan.

Corrigan, F. M., & Chrissie-Sands, J. (2020). An Innate brainstem self-other system involving orienting, affective responding and polyvalent relational seeking. Some clinical implications for a 'Deep Brain reorienting' trauma psychotherapy approach. *Medical hypothesis*, 136, 109502.

Cryan J. F. (2019). The Psychologist. Our Microbial World 1-6

Edwards, W (1963) 200000 Roar Plea for Negro Opportunity in Rights March in Washington.

Chicago Tribune p5

Einstein, A. (1922). *The Meaning of Relativity*. Princeton University Press.

Frankl, V. (1946/2006). *Man's Search for Meaning: An Introduction to Logotherapy*. Beacon Press

Hannaford, C. (1995). *Smart moves: Why learning is not all in your head*. Great Ocean Publishers.

Herman, J. (1992). *Trauma and recovery*. Basic Books.

Hill, R., & Rossi E. L. (2018). *The practitioners guide to mirroring hands: A client responsive therapy that facilitates natural problem-solving and mind-body healing.* Crown House Publishing

Hobson. J. A. (1994). *The chemistry of conscious states.* Back Bay Books.

Hofmann, A., & Lehrung, M., (2021). DeprEnd - EMDR Therapy Protocol for the Treatment of Depressive Disorders. Springer Publishing Company

Jeffrey N Photograph (2021). Dark Energy Survey Collaboration (Irish times .com accessed 2 June 2021).

Levine, P. (1997). *Waking the tiger: Healing trauma*. North Atlantic Books.

Lovett, J. (1999). *Small Wonders*. Simon and Schuster

MacLean, P. D. (1985). Brain evolution relating to family, play, and the separation call.

Archives of General Psychiatry, 42, 405-417.

McFarlane, A. C. (1996). Resilience, vulnerability, and the course of posttraumatic reactions.

In B. Van der Kolk, A. C. McFarlane, & L. Weisaeth (Eds.), *Traumatic stress: The effects of overwhelming experience on mind, body, and society*. Guilford, 155-181.

Nijenhuis, E. R. & Van der Hart, O. (1999). Forgetting and re-experiencing trauma: From anesthesia to pain. In J. Goodwin, J. & Attias, R. *Splintered reflections: Images of the body in trauma. Basic Books*, 39-66.

Nijenhuis, E. R. S., Vanderlinden, J., & Spinhoven, P. (1998). Animal Defensive Reactions as a Model for Trauma-induced Dissociative reactions. *Journal of Traumatic Stress*, 11 (2), 243-260.

O'Malley A. G. (2019). *Sensorimotor-Focused EMDR: A New Paradigm for Psychotherapy and Peak Performance*. Routledge.

O'Malley A. G. (2018). A Description of the Six Stages of the Shutdown Dissociation Continuum Associated with Complex Trauma. Introduction of a Novel Model of Dissociation. *SF Journal Neuroscience*, 2(4), 1-12.

Rogers, C (1951). *Client Centred Therapy. Its current practice, implications and theory*. Constable.

Rossi, E. L. & Rossi, K. L. (2008). *The new neuroscience of psychotherapy, therapeutic hypnosis & rehabilitation: a creative dialogue with our genes*. http://ernestrossi.com/ebook/index.html

Stickgold, R. (2002). A putative neurobiological mechanism of action. *Journal of Clinical Psycology*, *58*(1), 61-75. doi: 10.1002/jclp.1129.

Yalom, I. & Leszcz, M. (2021). *The theory and practice of Group Psychotherapy* (6th ed). Basic Books.

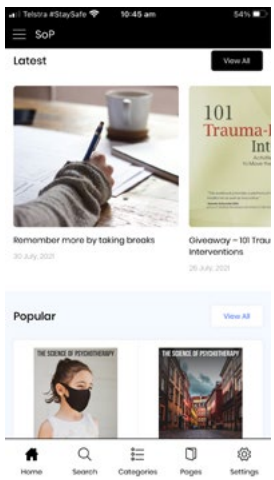
BIOGRAPHY

Dr Art O'Malley graduated in medicine from Trinity College Dublin. After training in General Practice and Psychiatry he took up a post of consultant in Child and Adolescent Psychiatry for the NHS in North West England. After becoming a Europe Accredited EMDR Consultant in January 2008, he spent a year training in Sensorimotor Psychotherapy at the Sensorimotor Psychotherapy Institute in Lincoln, run by Liz Hall, in 2009. One of his trainers there, Dr Janina Fisher, advised him to look for ways to integrate the bottom-up reprocessing of Sensorimotor Psychotherapy ("because words are not enough") with Eye Movement Desensitisation Reprocessing Therapy (EMDR) ("Just go with that"). The result is Sensorimotor-Focused EMDR, which Dr O'Malley believes represents a new therapeutic paradigm.

Dr Art O'Malley

Website www.artomalley.com

GET THE APP



https://apps.apple.com/app/id1561314333

https://play.google.com/store/apps/details?id=com.thescien-ceofpsychotherapy.app43810