



Exploring the Link between Trauma, Physical illness, and Psychotherapy.

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ABSTRACT

Trauma is prevalent, potentially to a higher extent than we realise. Chronic illness and medically unexplained symptoms are also very common. Healthcare systems in many countries are bursting at the seams with chronic and pain patients. This study focuses on the link between physical ill health and a history of trauma and childhood adversity. Previously, many studies have examined the relationship between past adverse experiences and chronic illnesses, with the consensus of a clear correlation between. However, few studies have considered the benefit of using this information to positively influence health management. Knowing the link between trauma and chronic illness could be utilised in the management of chronic illness in current health systems. After all, the efficacy of such systems is regularly questioned. The current study set out to find research on this, with the outcome showing a lack of any concrete data. The paper suggests the potential benefits of integrating trauma therapy into clinical settings. Trauma therapy can be complicated for psychotherapists, so such challenges are highlighted in this study. This paper concludes the need to address the difficulties in providing trauma therapy before aiming to use it in another complicated setting such as a healthcare system.

“While I was convinced the woman was afflicted not by a bodily disease, but rather that some emotional trouble grieved her, it happened at that very moment I was examining her, this was confirmed. Someone coming from the theatre mentioned he had seen Pylades dancing. Indeed, at that instant. Her expression and colour of her face, was greatly altered. Attentive, my hand laid on the woman’s wrist and I observed her pulse was irregular, suddenly, violently agitated, which points to a troubled mind”

Galen, c. AD 150

Exerpt from the book “It’s All in Your Head” by Suzanne O’Sullivan

INTRODUCTION

This paper is a theoretically based research study which explores the role of psychotherapy, specifically the efficacy of trauma therapy, in the treatment and management of chronic illnesses and medically unexplained symptoms (MUS). It will highlight the clear link between childhood trauma, post-traumatic stress disorder (PTSD) and incidences of chronic illnesses in an individual's life. This study first outlines the link between chronic illnesses and trauma, with references to the ACE study (adverse childhood experiences), and PTSD. The physiology of trauma in the brain and nervous system will be examined with the aim of demonstrating the biological reason for this link. This research will highlight the presence of research linking chronic illness and a trauma history, but it will show a lack of data on using this knowledge in a medical setting and separately in the therapeutic room. Approaches to trauma therapy will be identified from a therapist's perspective, including challenges to providing this type of psychotherapy. A specific analysis of the place for trauma therapy, or lack of, in healthcare settings will be discussed. Challenges to potentially using trauma therapy in healthcare settings will be outlined also.

This topic was chosen due to a personal connection of the author, who works as a nurse in the area of endoscopy. Here many patients undergo invasive and stressful procedures because of symptoms they report. Examples include dysphagia (difficulty swallowing), reflux, gastric pain, irritable bowel syndrome (IBS), or inflammatory bowel disease (IBD). Some patients complete all medical tests and procedures, without any concrete reason for their symptom or flare up. Some may not respond to strong medication aimed to lower the inflammatory response in the body. Others may have existing chronic illnesses and new symptoms arising, leading to an even lower quality of life. Some patients appear to be very anxious, stressed and potentially be

suffering from a trauma as they show certain indications relating to a trauma history such as hyperarousal. Being unable to find a specific reason for these symptoms or having unsatisfactory response to medical interventions, can lead to frustration for both patient's and medics. It causes for consideration of other possible causes for physical symptoms and debilitating chronic diseases.

In this paper the term "patient" will be used to refer to a person seeking treatment in a healthcare setting and "client" will be used to refer to a person seeking therapy.

Trauma

Trauma is "unbearable and intolerable" (Van der Kolk, 2014). Traumatic events are usually viewed as a threat to life, with an inability to escape from it (Taylor, 2014). It causes profound effects on a person's life and always hovers in the background of their experiences, causing a change in their view of the world in a negative and debilitating way. The inner experience of a person is then reflected by the outside world (Taylor, 2014). Trauma can cause devastating consequences and can result from minor mishaps to major life events (Levine, 2005) If unresolved the effects can cause mass amounts of human suffering (Levine, 2005 p. 7).

Chronic Illness and MUS

Over one million people in Ireland today suffer from chronic illnesses such as diabetes, cardiovascular diseases, respiratory illnesses and more. Over 64.8% of those over 65 years of age in Ireland suffer from two or more chronic conditions. This has a massive impact on the Irish

economy and would give the impression of a society suffering. Management of chronic illnesses in Ireland is currently ineffective with most patients requiring hospital admissions on a regular basis (HSE, 2018). The HSE is currently reviewing ways to address this seemingly ineffective approach but appear to be only at the beginning of considering changes to the current system (HSE, 2018). Medically unexplained symptoms are prevalent and a burden for both patients and healthcare services (Wortman, Van der Wouden, Grutters, Visser, Assendelft, Vander Horst, & Hartman, 2019). Medically unexplained symptoms (MUS) are diverse and include irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, and chronic pain. They are described as medically unexplained when investigations do not show any pathological reason for the physical complaint (Cooper, Abbass & Town, 2017). Medically unexplained symptoms account for one in five GP consultations (Wortman *et al*, 2019). Nearly a third of these patients are found to be in line with a psychiatric disorder (Hills, Lee, Freshwater & Cahill, 2018) and many have a psychosocial problem (Hartman *et al* 2013). MUS are complicated and can be ineffectively managed in primary care settings (Cooper *et al* 2017). Often, patients are unwilling to discuss psychosocial issues which may be directly or indirectly related to symptoms. GPs can be too focused on the disease, leading to a lack of person-centred care (Hartman *et al*, 2013). Maybe a psychosocial or psychotherapeutic approach may have a positive impact on the treatment of physical illnesses. For this study trauma therapy will be explored as a potential additional treatment and/or management for chronic illnesses.

CHAPTER ONE: TRAUMA, PTSD, AND THE ACE STUDY

Peter Levine describes it as “the most avoided, ignored, denied, misunderstood, and untreated cause of human suffering” (Levine, 2005, p. 7). The effects of trauma are not always obvious at first. They can happen slowly, over time and can affect a person’s mind, body and in turn behaviours and reactions to life (Levine, 2005). The ACE study (Adverse Childhood Experiences), created and conducted by Vincent J. Felitti, shows a strong link between various types of childhood adversities and traumas with adult physical disease and mental disorders (Felitti, Jakstis, Pepper & Ray, 2010). Felitti discovered this correlation at his obesity clinic. Here many patients successfully losing weight began dropping out of the program. When he investigated the history of these patient’s further, 55% were found to have a history of sexual abuse. The ACE study and questionnaire was born out of these findings. (Felitti *et al*, 2010).

Adversity in childhood can make a person six times more likely to develop chronic fatigue syndrome (Nakazawa, 2015, p. 16). Children of divorced parents are twice as likely to have a stroke later in life, and if they lose a parent, they are three times more likely to suffer depression as adults (Fuller-Thomson, Dalton, & Mehta, 2010). The ACE study is compiled of only ten questions. If a person has an ACE score of four or more, they are 50% more likely to develop depression (Nakazawa, 2015, p. 48), and 20% more likely to complete suicide (Nakazawa, 2015, p. 48). An ACE of seven or more can have a 360% likelihood of developing heart disease (Nakazawa, 2015, p. 32). Studies show childhood trauma including emotional abuse, and those with a mentally ill family member is reported in more than half of woman suffering from irritable bowel syndrome (Nakazawa, 2015, p. 32), (Parks, S. H, Videlock, E. J., Presson, A. P., Mayer, E. A., & Chang, L., 2016). (Halland, M., Almazar, A., Lee, R., Atkinson, E., Larson, J., Talley, N. J., & Saito, Y. A., 2014).

The structure and workings of the brain of a child exposed to various types of adverse backgrounds alter its ability to function optimally (Nakazawa, 2015). The individual carries the scars of their upbringing which are aggravated by certain life events. Being constantly surrounded by stressful environments causes a constant dysregulation of hormones which flood the brain. An ongoing release of the stress hormones cause chronic stress which in turn leads to inflammation in the brain and body. This translates into fibromyalgia, tumours, chronic fatigue, IBS, and many other autoimmune diseases (Nakazawa, 2015). The Hypothalamus Pituitary and adrenal glands (HPA) stress axis is forming during childhood. A lack of safety can strongly affect its maturation (Nakawaza, 2015), and can influence the ability to shut off the stress response according to Margaret McCarthy, PHD (Professor of Neuroscience and university of Maryland School of Medicine), as cited by (Nakazawa, 2015, p. 34). The resulting effect is an individual caught in a stress response cycle, which may bring about traumatic responses to seemingly innocuous life events.

It is not just childhood trauma that impacts the human subject physiologically, mentally, and emotionally. Post-traumatic stress disorder can have similar negative influences on health. In fact, trauma symptoms shown by post Vietnamese war veterans brought trauma to the attention of Bessel Van der Kolk. From investigating the origins of the veteran's symptoms, a new diagnosis was born and added to the DSM. It was called Post-Traumatic Stress Disorder (PTSD) (Van der Kolk, 2014). Some characteristics include persistent negative feelings after a traumatic event, avoidance of any stimulus associated with the event, hypervigilance, angry outburst and dissociative features (DSM-V 2013, p. 274-275). There appear to be limitations to the DSM description as no physiological symptoms are listed. The author, whilst on nursing duty, witnessed a patient describe their symptoms after having a bicycle accident. They were

physically stuck in a freeze response. They could not eat for a full week, their “digestive system felt frozen”. They eventually had treatment for PTSD which resolved their “frozen” state. In chapter two the fight, flight and freeze response of the autonomic nervous system, the physiology of PTSD and some physical manifestations will be examined in more detail. PTSD and childhood trauma bring about premature aging of immune system cells (Morath, J., Moreno-Villanueva, M., Hamuni, G., Kolassa, S., Ruf-Leuschner, M., Schauer, M., & Kolassa, I. T., 2014). The impact of childhood trauma and PTSD can negatively influence our roots, in that it can change the structure of our DNA (Morath *et al*, 2014). These changes affect humans at an epigenetic level (Nakazawa, 2015). Epigenetic changes are modifications to our DNA which can affect their activity or expression. These changes can determine which genes are switched on or off and can affect which crucial proteins are produced. These can also be inherited, can be influenced by diet, environmental factors and exposure to toxins (US National Library of Medicine, 2020). However, for children from dysfunctional or traumatic families of origin, epigenetic changes in specific sites were noted by studies. These were permanently altered, thereby deciphering how they respond to stress later in life.

Many factors can bring on chronic illnesses in later life. Infection, genetics, and unhealthy life-style choices can influence health (Nakazawa, 2015, p. XVII). Adults who were exposed to many adversities can engage in health risk behaviours such as smoking, alcohol abuse, and sedentary lifestyles. This can also increase the likelihood of heart disease, cancers, liver and lung diseases (Hovey, Stalker, Teram, & Lasuik, 2011). There is an argument to say that this might be the main reason for the correlation between ACEs and chronic diseases. To investigate these assumptions further, we will now look at how trauma and post-traumatic stress affects the body.

CHAPTER TWO: TRAUMA IN THE BODY

The Brain and Autonomic Nervous System.

The autonomic nervous system is made up of two branches, the sympathetic and parasympathetic branches. The sympathetic nervous system (SNS) activates during stress including traumatic situations (Rothchild, 1997). This is shown by increased respiration, heart rate, blood flow moving away from skin and digestive organs to muscles, preparing to defend. The parasympathetic nervous system (PNS) activates during states of rest and relaxation.

The brain is made of three parts: the reptilian brain located in the brainstem, the paleomammalian brain (limbic brain) and the neocortex which includes the prefrontal cortex (Ogden, 2006). Different aspects of knowledge originate from each of these brains. The reptilian brain develops first, both from a evolutionary and a human growth perspective (Ogden, 2006). It controls homeostasis of the body, reproductive drive, including working of heart lungs, endocrine and immune system, as well as eating, sleeping pain response (Van der Kolk, 2014) and is connected to the sensorimotor part of the body (Ogden, 2006). Knowledge from the reptilian brain is innate and instinctual. The second part of the brain, the paleomammalian (limbic system) is wrapped anatomically around the reptilian brain. It manages emotion, memory, some aspects of social interaction and learning (Ogden, 2006) and is mostly developed by the age of six years old (Van der Kolk, 2014). It processes surroundings, danger, other living beings and therefore holds knowledge that is subjective, experiential, and emotion based (Panksepp, 1998, cited by Ogden, 2006). The neocortex develops last. This is where cognitive processes happen, information is organised as well as conscious thinking, and linking the right and left hemispheres of the brains (Ogden, 2006). Its knowledge is feedback from information it extracts and interprets from the external world (Ogden, 2006). The brain functions by integrating all three of these areas. The basic,

lower parts must be working well for the higher functioning cognitive processes to happen affectively (Ogden, 2006). These lower areas must develop before the more sophisticated higher parts mature. After an individual suffers from trauma, which may affect the cognitive, emotional and sensorimotor functions, there may be maladaptive synchronisation between the systems. For example, an individual having a fear of a placid, friendly dog after being attacked by a dog as a child. This harmless dog may trigger a sensorimotor response such as increases heart rate, and blood flow to her legs, which alerts her that it is dangerous. Her emotions are that of fear, when she is safe. Her cognition is distorted by the other two aspects of her brain (Ogden, 2006).

The amygdala in the limbic system is the early warning signal for trauma. It begins the cascade of body reactions in response to trauma, before the cortex is even aware there is a real or perceived danger (Rothchild, 2003). It alerts the endocrine system, specifically the hypothalamus-pituitary-adrenal axis, to release hormones (adrenaline and cortisol) that to prepare the body to defend itself. This activates the fight or flight response in sympathetic nervous system. If this threat continues for a long time, the parasympathetic nervous system also kicks in and causes a freeze response leading to immobility/paralysis (Rothchild, 1997). The amygdala may continue to alert the HPA to release hormones, thereby flooding another part of the limbic system, the hippocampus, with these stress hormones. The hippocampus's function is rational thought, spatial context and information processing (Rothchild, 2003). With the influx of hormones, it loses these abilities, making it hard to know when the trauma is over (Rothchild, 2003). The knock-on effect is a continuous release of stress hormones creating an imbalance, dropping vital functioning and causing potentially catastrophic effect to physical health. A person can become frozen in a traumatic state. The basic parts of a human's brain are the same as an animal's brain. The rational brain in a human is where the difference lies (Levine, 2005). Animals who experience trauma in

the wild can shake it off. Take the example of a bear being chased by a helicopter with people on a mission to tag the bear. The animal is running (fight or flight), it is then shot with a tranquiliser dart, thus sedating the bear and stopping its trauma response. When he wakes up the bear trembles lightly, has convulsions, flails his limbs, followed by taking very deep breaths which moves his diaphragm. This is the animal blowing off stress. The limbs moving is the animal completing his escape. He shakes off “frozen energy” and is now not carrying any trauma in the body (Levine, 2005). Humans require the same type of response to shake off the trauma. However, if a person experiences a frightening event where they cannot escape, for example medical procedure where they are pinned down, fight or flight cannot be completed. The body’s response is the final resort of collapse and disengagement. This is created by the dorsal vagal complex (Van der Kolk, 2014). Once this system kicks in, an individual’s awareness of his/her body and wellbeing, and other people cease to matter. This causes major negative impacts including behavioural, emotional and physical. Dissociative features are common, and from a physiological perspective, digestive symptoms can appear, such as diarrhoea, and nausea (like irritable bowel symptoms) (Van der Kolk, 2014). These are just some of the results that can lead to poor quality of life. From an evolutionary perspective, our brain has not caught up with modern life which means a traumatic experience can have significant physiological effect on a person.

If a child growing up experiences this response on a continuous basis, when parts of their brain is maturing, deficits in maturation can occur. Even an adult experiencing PTSD can bring forth an altering in their behaviour and the way they view the world. They are, after all, now locked in a trauma response, and not functioning optimally. As demonstrated, chronic illnesses are one group of symptoms derived from traumatic experiences (Ogden, 2006). These may unfold after behavioural and mental health issues arise such as hypervigilance and hyperarousal. Other initial

trauma symptoms include dissociation, freezing, exaggerated responses, decreased ability to deal with stress, and flashbacks (Levine, 2005). Phobias, panic attacks, avoidant behaviour or inability to love may eventually surface (Levine 2005). A traumatised person may also be attracted to scenarios where they can re-enact their trauma (Levine, 2005, p. 22). Symptoms from trauma are trying to alert an individual to heal what happened. They tell the story of the adverse filled past (Ogden 2006). Until healing has occurred these messages from the body will continue (Levine, 2005).

If a person's origins had a dysfunctional dynamic, it does not mean they are destined to become ill. There is always an opportunity to heal from the negative effects this dynamic caused and reframe their future story. The brain is malleable. Science has shown various approaches that rewire and reconnect some areas of the brain by making new synaptic connections between neurons, which creates new ways of thinking and reacting, with a result of reducing inflammation and therefore illnesses (Nakazawa, 2015). One approach which has been found to be profoundly beneficial is psychotherapy.

CHAPTER 3: TRAUMA THERAPY

Effective trauma treatment ensures an individual, their body and brain are brought back to a working state (Van der Kolk, 2014). Felitti believes the point at which healing begins is acknowledging the presence of trauma (Felitti *et al*, 2010). (Morath *et al*, 2014) conducted a study focusing on changes in the DNA of trauma exposed individuals after psychotherapy. They found that successful psychotherapy reversed DNA strand breakage. This breakage has a strong link to carcinogenesis and genomic instability, which is an increased likelihood of a defect in DNA repair leading to malignant formation (Morath *et al*, 2014). DNA develops this construct after prolonged exposure to trauma or PTSD. While this shows a strong benefit of psychotherapy demonstrated at a molecular level, there are limitations to the study as many other biological factors and mediators may be involved in this DNA strand change (Morath *et al*, 2014). The type of psychotherapy used in this study is narrative exposure therapy. This is a top down treatment where a client constructs traumatic memories into a clear narrative.

The two main methods for the treatment of trauma are divided into top-down and bottom-up therapies. Many therapies focus on the top down approach. Sigmund Freud advocated the “talking cure”. The premise of psychoanalysis, developed by Freud, was accessing the unconscious and healing traumas, by free associating which is talking without inhibitions (Freud, 1916-17/1963). Cognitive behavioural therapy and psychodynamic treatments focus on distortions in thoughts and emotions. By changing perspective and identifying individual triggers, a person will develop adaptive coping mechanisms and strategies to optimally manage these thoughts. Suffering is relieved, improvement in emotions and wellbeing occurs which in turn, has a positive influence on the mental and physical experience (Ogden, 2006), (Solomon & Heide, 2005). However, this may not be enough in eradicating trauma symptoms or transform

them into something manageable. The talking therapies are working on the neocortex part of the brain, the area managing concepts, language and descriptions. These make up our conscious, explicit memories. The deep ocean of trauma lurking in the reptilian and mammalian part of the brain where our implicit memories are stored, is not accessed through verbal communication. “Somatic memory”, emotions, and senses makes up our implicit memory and are unconscious (Rothchild, 2003). To address trauma, the implicit memory needs to be accessed so changes can happen on an autonomic, physical and hormonal level (Van Der Kolk, 2014), to help resolve hyperarousal, diminish the trauma response (Solomon & Heide, 2005), and potentially manage and prevent chronic illnesses. Therapy needs to focus on the body also.

Peter Levine, Babette Rothchild, Ogden and Bessel Van der Kolk have all advocated the use of the body as a vehicle for accessing trauma to aid recovery from it. With this collective concept, each therapist created their own trauma therapy. Levine created somatic experiencing which guides a person to complete a stuck trauma response (Levine, 2005). Levine believes a client becoming aware of their body sensations, they instantly shift into something more bearable (Levine, 2005). Rothchild founded somatic trauma therapy, a form of body psychotherapy which uses the idea of “putting on the brakes” as a way of tentatively accessing trauma in a manner which is safe and manageable. The approach enforces commitment to the therapy and prevents re-traumatisation (2003). Ogden (2006) developed sensorimotor psychotherapy. This integrates traditional psychodynamic psychotherapy with the body awareness as the focal point (Ogden, 2006). This practice is found to be very effective as a treatment for PTSD (Rothchild,1997 & 2003), (Levine, 2005), (Ogden, 2006). Van der Kolk (2014), creates the escape route in the therapy room, the tool PTSD clients require to complete their trauma response. A study conducted a study on survivors of the Tsunami in 2004 which killed over 300,000 people found

that 90% improved significantly after somatic therapy and many were completely free of symptoms of hyperarousal or avoidance (Parker *et al* 2008). Overall, 80% of the participants said yes to the experience of one or more core PTSD symptoms of arousal or intrusion and 50% said yes to avoidance reactions. However, at the 8-month follow-up, more than 90% improved significantly or were completely free of symptoms of intrusion, arousal, or avoidance. This study showed somatic experiencing therapy to be an effective approach for treating trauma-related reactions and PTSD. (Parker *et al*, 2008). Overall somatic therapy appears to be more beneficial at relieving trauma symptoms than talking therapy alone. It requires skill and experience to carry out due to the uniqueness of the approach and degree of sensitivity required.

Trauma therapy with Chronic Illness and Medically Unexplained Symptoms.

As demonstrated, if trauma is not addressed, evidence suggests it may lead to chronic illnesses and medically unexplained symptoms. Current research indicates an increased awareness in the benefits of psychotherapy as part of a treatment of MUS. However, it appears most psychotherapy studies have focused on CBT or other narrative therapies as a side treatment for chronic illnesses and MUS, with mixed results. A study focusing on chronic fatigue syndrome showed a range from miniscule to moderate improvement in patient symptoms, with some patients reporting no improvement (Sumathipala *et al*, 2008), (Deary *et al*, 2010), cited by Geraghty and Scott (2020). Other studies on IBS and IBD patients showed an improvement in their quality of life following CBT. They demonstrated an interest in learning about the psychological link. CBT also helped to reduce a person's reliance on negative coping strategies, common for people who have an ACE history (Parks *et al*, 2016) and manage the anxiety and depression known to be associated with IBS and IBD (Knowles, Monshat & Castle, 2013).

However, studies show that it is inconsistent regarding improvements in IBD symptoms (Knowles *et al*, 2013). A meta-analysis of CBT on psychosomatic clients showed 71% of the studies showed a positive impact on physical symptoms (Kroenke & Swindle, 2000). This would appear to be vague. Individuals may define improvements subjectively. One may physically improve more than another but interpret the result very differently. This could be a limitation to many of these studies. The inconsistency may be a reason why study outcomes on CBT with physical illness vary. Positive outcomes could be CBT positively influencing a person's ability to cope with previous trauma, whilst not healing it completely. Or it may be unrelated.

The author is currently working in a gastroenterology department in a university hospital in Dublin. Research began in the last couple of years on acceptance and commitment therapy for IBD patients, with some positive outcomes, which were similar to previous cognitive behavioural therapy research (Wynne, McHugh, Gao, Keegan, Byrne, Rowan, Hartery, Kirschbaum, Doherty, Cullen, Dooley, & Mulcahy 2019). When a professor of gastroenterology in this department was asked if he knew there was a link between adversity and illness, he stated a vague awareness. A second doctor had a similar response. New patients entering the gastroenterology system with Inflammatory bowel disease could be assessed with an ACE study as part of a medical assessment. If their score was high, they could then be referred for psychotherapy and trauma therapy. Some studies highlight the mind body connection trauma therapy emphasises. The research is suggesting some awareness and acknowledgment of trauma and chronic illness links (Payne, 2009), but a lack of research and links between the medical and psychological. Maybe there is avoidance of the pink elephant in the room. The author showed the ACE questionnaire to the professor and asked what his thoughts were on using it for patients with IBD. He was interested but had reservations about the intensity of some of the content,

particularly the question on sexual encounters in childhood. He thought it would be too much for patients. This may be true for some patients but as Felitti noted, many patients were relieved to finally discuss something that was plaguing them for years. Maybe we are many years and a lot of research away from bringing past psychological history into the chronic illness clinics in the health service. Perhaps the therapy room will be the place to solely address trauma for now.

The Therapist's Perspective

Considering addressing trauma histories in the healthcare setting may be running before we can walk, especially when it appears trauma may be overlooked in the typical therapy room. An effective approach to trauma from a traditional therapeutic room might have to be solidified before bringing the approach to the healthcare setting, a place where professionals are not trained in any therapy. It is the efforts of the therapist in spotting trauma during sessions which may bring about awareness and potentially a positive knock-on effect on the burden of chronic illnesses in the healthcare service. From the research showing the link between trauma and low quality of life, as well as the delicate nature of the subject, being trauma informed as a therapist is paramount. Without a trauma informed approach to all therapy, a therapist may be blindsided when trauma appears in the room. A person may enter treatment without complete conscious awareness that their depression, anxiety or phobia they are experiencing, is masking a more profound traumatised state. Or a client may be aware it is trauma therapy they need but they may not disclose this for a while (Courtois, 2018). Hence the therapist's need for trauma awareness. A therapist also needs to know their limitations on the subject, so they know when to transfer a client to another with more trauma related experience (Courtois, 2018). If not, the therapist may unconsciously guide the client away from addressing their trauma. Most of the time, only

through the exploration of the past and the bottom-up therapy approach, can a breakthrough in a client's wellbeing occur. Clients have reported many years going from therapist to therapist without any relief or resolution (Courtois 2018). Narrating their issues as well as a therapist sidestepping their present trauma and their need for a bottom-up therapy is shown to be one of the reasons (Courtois, 2018). Being able to spot trauma could be a way of avoiding this. Chronic illnesses and medical history in the therapy room could be a flag to trauma. But therapists must first be informed and educated on this.

Courtois (2018) suggests the importance of training on at least one primary evidence-based trauma treatment, which may also cover other challenges that arise in therapy. Strong emotions of fear, shame, disconnection can be brought to the relationship in a transference (Taylor, 2014). A therapist must be able to tolerate these emotions and the uncertainty trauma brings to the room (Taylor, 2014). Attuning to the client's arousal is important to keep the client within a level they can tolerate (Taylor, 2014). Other challenges include countertransference and vicarious traumatization. Countertransference can be quite intense and difficult for a therapist to manage. It may evoke feelings such as anger, rage, hopelessness, and disempowerment (Courtois, 2019, p. 55). "Vicarious traumatization (VT) refers to negative personal transformation of the therapist that results from close engagement with traumatized clients and their stories, and that is believed to be cumulative (McCann & Pearlman, 1990; Saakvitne & Pearlman, 1996)", as cited by Courtois, 2018). It is inevitable but requires preparedness, education and effective supervision to avoid compassion fatigue or emotional exhaustion (Courtois, 2018).

Solidifying the incorporation of trauma informed care in the therapeutic room may be required before bringing this into a healthcare setting. As can be seen, trauma informed care is quite challenging. Sufficient education and resources would be required by the healthcare team, or perhaps more psychotherapist placements on a clinical level incorporated into a multidisciplinary approach. A trauma therapist's influence could help support and raise awareness of the usage of the ACE study and the need to address trauma which may eventually have a positive effect in lessening the burden of chronic illness and MUS management in clinical settings. Further challenges of bringing psychotherapeutic trauma therapy into a healthcare setting may be the stigma still present in some parts of society. Suggesting therapy to a person who doesn't readily volunteer for it could offend them. The biggest step to therapy is making the call and booking the appointment. There is a fear of being considered "mad", with physical ill health being more acceptable than mental health issues (Payne, 2009).

LIMITATIONS

The study showed cognitive behavioural therapy to be the treatment of choice for trauma therapy. Biology would indicate a need for a therapy which focuses on the nervous system, over the cognitive functioning of a person. It is easier to quantify cognitive behavioural therapy and it is cheaper as it usually limits sessions to around six. Perhaps the reason for copious studies focusing on this therapy.

The research was conducted during a world pandemic. The libraries were closed throughout the country so complete access to information was limited. Supervisor meetings were held online, which may have hindered some communication and guidance, as well as support from classmates.

This subject is so large, with many subcategories that could be explored and analysed. This research is an overall view of trauma as well as its potential place in a healthcare setting. The word count prohibits further exploration of the subject of trauma therapy and education, and investigation if other countries have tried trauma therapy before.

CONCLUSION

This research dissertation examined how trauma and PTSD in a person's life can have a major impact on the incidences of developing chronic illness and medically unexplained symptoms and highlighted a clear link between these. The ACE study, PTSD and physiology of the brain and nervous system were first explored which solidified this hypothesis. On the basis there is a correlation, the study then explored the efficacy of psychotherapy, with an emphasis on trauma therapy as a way of managing and treating chronic illnesses and MUS. A gap in research

was highlighted showing a significant emphasis on cognitive behavioural therapy as a psychological solution to physical illness. CBT is cost effective and easy to quantify which may be a reason for the copious research on this psychological source. In comparison, trauma therapy takes various lengths of time, usually longer than CBT, thereby costing more, and usually requiring a more individualised approach to clients. This may be why there was a lack of research on trauma therapy as a means of addressing physical ill health. In this study trauma therapeutic approaches, including difficulties therapists face when conducting therapy, were discussed. Some of the challenges and complications associated with trauma therapy may need to be addressed before integrating it into a system not familiar with the underpinnings of this therapy. Support and adequate education for trauma therapists was suggested as a means of creating a more effective and safe way of conducting this therapy, and perhaps creating stronger scaffolding for trauma therapy.

Trauma therapy is not the only approach for a treatment or co-treatment for MUS and chronic illnesses. However, this study has shown the benefits of linking the two together. There is a whole plethora of research required, both in the healthcare setting but maybe first and foremost in the form of trauma informed care in the therapy room. Further studies on the relationship between trauma, physical illness and the use of therapy in a healthcare setting may bring about changes to health systems and therapy as we know them.

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