Addressing Chronic Pain and Health Conditions

for Improved Outcomes with Trauma, Depression, and Anxiety

By Gary Brothers, LCSW

If you remember anything after reading this article, I hope it's this: *If you treat adults, you are treating chronic pain and chronic health conditions.* You might be saying to yourself, "No, I don't. My clients present with trauma/PTSD, anxiety, and depression." Okay, so here's the thing. Many therapists already know clients have these struggles but focus on the other issues they believe are more in their wheelhouse to address. Often therapists help clients cope with the symptoms of these conditions as an adjunctive component to treatment while focusing on the more *primary* issues. Many believe chronic pain and health conditions are best left to medical providers to treat while focusing on *mental health* or *psychological issues*. I also imagine there are quite a few therapists who are unaware their clients even have these conditions because clients often believe these issues are not relevant for psychotherapy and thus do not disclose their struggles with these issues.

Again, if you're treating adults, you are already treating chronic pain and health conditions, even if you don't know it. I am going to explain why this is the case. But I do want to ask, do you ever feel as though some of your clients' treatment progress has plateaued and you can't figure out why? Consider looking at treatment through a new lens. Working with clients who have trauma/PTSD, depression, and anxiety can be enhanced by a simple shifting of perspective and a willingness to learn more. And perhaps learning some new skills and interventions can bring a deeper dimension of healing. I suggest it can. The fact of the matter is, *social and physical pain are almost the same to your brain* where the brain demonstrates very similar patterns of activation and processing of physical and social causes of pain.[1]

As Louis Cozolino states, "there are no single human brains–brains only exist within a network of other brains."[2] We are a social species; our brains and nervous systems are wired to perceive and experience life through relationships. What if this is also true of how one develops and experiences chronic pain and health conditions, through and within social networks and experiences? And what if it is in the brain and not the body where we experience pain? Well, this is, indeed, how things work.

Chronic pain and health conditions are syndrome states in the body. They do not have singular causes, such as an accident or injury, or a genetic predisposition. While these may be and quite often are contributing factors to the etiology of the conditions, they are not the only factor or even the root cause. By a syndrome state in the body, I mean there are multifactorial causes, present and historically, creating the *disease* or *disorder*. And there are multifaceted manifestations of the syndrome internally within the body's systems and externally across functional domains. Unfortunately, it is the tendency in our culture to treat the symptom manifestation of these conditions rather than the underlying causes or the maladaptive building blocks of these syndrome states. And we most often do this in an inconsistent and incomplete piecemeal way. While this may reduce the symptoms and suffering, it often does not promote healing and recovery, which many times can occur. When this does occur, we call it remission. To reach this goal, there is the need for a multidimensional, and often multidisciplinary, treatment approach. But first we must see the forest through the trees.

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and for understandable reasons. Chronic pain affects one's health status, and many chronic health conditions result in pain, quite often chronic pain. I use two separate care models, one for chronic pain and another for chronic health conditions. The model of care I use and teach to treat chronic pain is also instrumental in treating chronic health conditions. But the model of care I use and teach to treat chronic health conditions differs from the one for chronic pain. There are important neurobiological reasons for these differences. Yet, both models of care are founded in the Adaptive Information Processing Model and neurobiology. After all, I am an EMDR therapist. Both also involve an integrative approach that draws upon many other theories and paradigms, including but not limited to attachment theory and interpersonal neurobiology, Polyvagal Theory, psychophysiology, somatic psychotherapy, and psychoneuroimmunology.

However, it is in the conceptualization of care where the importance of distinguishing between what is chronic pain and what is a chronic health condition becomes vital. By this, I mean it is the lens from which the therapist sees and understands the causes of the problems and how to intervene most effectively. I refer to this as how the pieces of the puzzle fit together

Chronic Pain Model of Care

- Neuroplasticity skills to transform the brain from a chronic pain functioning brain back to an acute pain functioning brain.
- Learn what opens and closes the pain gates in the spinal cord and practice skills and strategies to close the pain gates.
- Re-habituate the nervous system from being constantly activated to states of calm and psychophysiological coherent.
- Activate biochemicals and neurotransmitters that reduce pain and inflammation, and create states of well-being, peace, and calm.
- Turn off nerves (called long-term depression) through the use of EMDR and other nervous system driven techniques and strategies based in the Adaptive Information Processing Model.
- Address co-existing conditions that are underlying, co-occurring with, and/or resulting from the difficulties of the chronic pain syndrome.

Chronic Health Condition Model of Care

- Develop a foundational understanding of how chronic health conditions develop in context of attachment disruption from a psychoneuroimmunological paradigm.
- Identify clients' maladaptive internal subjective neural templates based on their history of patterned attachment disruption and trauma (hopelessness and helplessness or anxiety and fear).
- Based on clients' internal subjective neural templates and associated interoceptive responses, identify coding errors related to predictive inference as it pertains to both past and present distressing life situations.
- Integrate attachment theory, Polyvagal Theory, Right Brain Psychotherapy, and the Adaptive Information Processing Model to help clients develop an adaptive internal subjective neural template of connection and protection.

  Specifically:
- Use a modified EMDR Standard Protocol that incorporates both attachment-based resourcing and an attachment-based processing model.

  Use new EMDR resourcing and scripted protocols to further assist clients to reduce and resolve coding errors and faulty neuroception, develop an internal subjective neural template of connection and protection, and shift clients' bodies into states of healing and health.

for each client. Models of care are guides that organize treatment plans and interventions but do not replace a well-developed clinical formulation.

Furthermore, *chronic health conditions* are a vast category of potential conditions. Generally speaking, my focus of care in this specialized area is primarily related to treating conditions such as autoimmune disorders, chronic headaches and migraines and other syndrome states such as chronic fatigue syndrome and fibromyalgia. Given the prevalence of these and chronic pain, I stay quite busy. However, chronic health conditions also include many other health conditions (which many clients I also treat often have), such as cancer, diabetes, Parkinson's Disease and Parkinson's like diseases, heart disease, hypertension, asthma, COPD, other upper respiratory disorders, and chronic infection states in the body and neurological conditions for unknown or idiopathic reasons. This is not a complete list as many referrals come when medical providers have exhausted their interventions, seek adjunctive assistance, or believe the conditions are *psychosomatic*, which is rarely the case. Psychophysiological, yes, but psychosomatic, not so much.

While many do not differentiate between these two, I do because psychosomatic refers to a *psychological condition* that leads to physical symptoms, often without any medical explanation. Typically, the root cause is some internal conflict of a psychological or psychosocial stressor, and when this is resolved psychologically, the physical symptoms also resolve. However, psychophysiology is an entire field of study that examines the bidirectional relationship between psychological states and health states and how psychological states are impacted and often determined through a complex interaction of different brain substructures and regions (cortical, limbic, brain stem) and autonomic, neuroendocrine, and immune system activation which, in turn, modulate cellular and molecular processes.[3] As you can see, not the same.

Most clients with pain and chronic health issues fall into the latter, those with psychophysiological issues. Again, figuring out how the puzzle pieces fit together is critical for an accurate and effective case conceptualization, and a foundational understanding of how things work is important to do this.

FACTS OF THE MATTER

Depending on the source and study, the statistics vary dramatically, but one thing is certain. Chronic pain and health conditions are prevalent and impact vast percentages of the population. In 2011, the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), and the Institute for Medicine (IOM) came together. They developed a Committee on Advancing Pain Research, Care, and Education. One of the primary purposes of this committee was to review and quantify the public health significance of chronic pain. The committee reported over 116 million Americans (34 percent) suffer from chronic pain. This is more people than those impacted by heart disease, cancer, and diabetes combined.[4]

However, in a 2018 report by Dahlhamer et al., through the use of a household health study by the National Center for Health Statistics (NCHS), the findings were a bit less daunting as the data indicated only (yes, *only*) 20.4 percent of adult Americans (50 million) suffer from chronic pain.[5] While it is not uncommon for statistics to vary among studies, I cannot explain the large disparity between these studies and outcomes. What I can attest to is the fact that there haven't been huge breakthroughs in the prevention or treatment of chronic pain, and it isn't a matter of significantly fewer people developing and suffering from chronic pain.

The opioid crisis is also as big of a problem as ever. There has indeed been a significant decrease in the rate of prescribing opioids (44.4 percent) by doctors and other health care providers over the past 10 years, and they have also increased the use of various prescription drug monitoring programs (PDMPs) over the past five years.[6] However, despite these practices, drug-related deaths continue to increase at alarming rates. More than 932,000 people in the U.S. have died from drug overdose since 1999, with an ever-increasing rate each year since then.[7] There were 91,799 deaths in 2020 alone.[8] This was a 31 percent increase from 2019.[9] Opioids were involved in 74.8 percent of all overdose deaths in 2020 and 82.3 percent of these involved synthetic opioids such as fentanyl.[10]

Instead of calling it the Opioid Epidemic, we are now calling it the Overdose Epidemic. The positive side of this is the fact there is less prescribing of opioids and recognition by prescribing providers of what is validated in the research; opioids offer minimal benefit in the treatment of chronic pain and an abundance of risk of harm that far outweighs any benefit.[11] Thus, some of the recommendations the American Medical Association (AMA) made in its *2021 Overdose Epidemic Report* were to rescind laws and policies that restrict multidisciplinary access to pain care, require insurance companies and other payers to make non-opioid pain care more accessible and affordable, and to focus on social factors related to health.[12] This is a step in the right direction for sure, but that puts therapists on deck to be able to treat and intervene effectively.

Regarding chronic health conditions, the research is even more disconcerting. In a 2017 study by the RAND Corporation, 60 percent (147 million) of adults in the U.S. have a chronic health condition, 42 percent (103 million) have more than one, 28 percent (68.5 million) have three or more, and 12 percent (29 million) have five or more.[13] This is a lot. The results of this study indicate only 40 percent (98 million) of the approximately 245 million adults in America *do not* have a chronic health condition.[14]

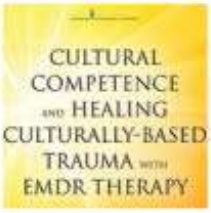
ELEPHANT IN THE ROOM

The other day I was asked to provide a referral for an EMDR therapist from a large cancer treatment center for a patient suffering from phantom bladder pain. As I was reviewing potential therapists to recommend from those I have trained, I noticed how few of these therapists in the vicinity of the center had chronic pain as an area of treatment focus on their website or *Psychology Today* profile. While these therapists may not identify as chronic pain specialists, they have specialized training in treating chronic pain. I might add, their training was rather in-depth, especially if they have been reviewing the information and practicing the skills from the workshop they attended with me, not to mention if they participated in post-training consultation groups, which many did, and/or if they sought out additional training and education elsewhere. Of course, clients need to be able to find therapists who are trained and willing to work with them for their pain and health issues, but it is a much bigger issue than this.

Beyond struggles with pain, over 50 percent of people with chronic pain also suffer from depression.[15] This is anywhere between 25-55.5 million adults. Furthermore, depending on the study, anywhere between 20-80 percent of individuals with a history of post-traumatic stress symptoms (PTSS) and anywhere from 10-50 percent of individuals diagnosed with PTSD suffer from chronic pain.[16] Some studies further suggest the rate of chronic pain in people diagnosed with PTSD is much higher. One of the most comprehensive studies was completed by Afari et al. in 2014. A systematic review and meta-analysis of all the literature found that traumatized people (PTSS) have a two to three times higher risk for functional chronic pain syndromes than those without a history of trauma.[17]

Regarding chronic health conditions, we can talk about more numbers and statistics but instead, let's review a little about something most of us already know, the Adverse Childhood Experiences Study (ACES). Most of us are probably familiar with and perhaps use this in our Phase 2 work using the Adverse Childhood Experiences Questionnaire. To do so is a recommended EMDR practice as it is explicitly recommended in Francine Shapiro's essential book, *Eye Movement Desensitization and Reprocessing (EMDR) Therapy: Basic Principles, Protocols, and Procedures* (3rd edition). What is so important to realize about the ACES and subsequent studies is the connection between the experience of adverse and traumatic life events in childhood and the development of chronic health conditions and depression, behavioral issues, addiction, and even early death. And if we understand psychophysiology, we realize how these are interrelated and entangled with one another.

For those who may not be familiar with the ACES, it was a longitudinal study conducted by Dr. Vincent Felitti, an internist at Kaiser Permanente in San Diego, Calif., and Dr. Robert Anda, an epidemiologist with the CDC in 1998. They assessed 10 types of traumatic experiences in 17,000 people before the age of 18, including physical, sexual and/or emotional abuse; physical and/or emotional neglect; losing a parent such as through divorce; being exposed to domestic violence; having a parent with a mental illness; having a parent who was incarcerated; and, having a member of the household who abuses substances. The more types of traumatic experiences one



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experienced, the higher their ACE score with a total possible score of 10.

Initial and subsequent studies found that ACE scores increase risk for autoimmune disorders, type 2 diabetes, obesity, asthma, heart disease, cancer, chronic headaches and migraines, chronic obstructive lung disease, fibromyalgia, chronic fatigue syndrome, other chronic physical and mental illnesses, and early death by up to 20 years.[18] Furthermore, for every one-point increase in one's ACE score, the risk of developing an autoimmune disorder increases by 20 percent, and having an ACE score of only two increases the chances of being hospitalized for an autoimmune disorder by 70 to 80 percent.[19] Further studies build on ACES findings and show all kinds of adversity affect the risk for disease, including neglect or abuse from someone other than a parent, death of a sibling or grandparent, difficult relationships with your parents, growing up with a parent or other household member who is physically ill, being in a car accident, being bullied, being born prematurely, and many other types of adversity that are frequently dismissed because they are so common.[20]

BEYOND THE ACES

It is not just about adverse childhood events, trauma, and the development of chronic health conditions either. We have known for some time that depression and anxiety are also associated with increased risk for some health issues and even premature death. The results of a new 2022 longitudinal study point to evidence of a direct link between depression, anxiety and shared biological mechanisms of many chronic health conditions and accelerated cellular aging as it relates to chronic inflammation, neuroendocrine dysregulation, oxidative stress, mitochondrial dysfunction, among others.[21]

This study followed more than 40,000 people over 10 years and found women of all ages who struggle with depression as well as co-occurring depression and anxiety have a significantly increased risk of developing chronic health conditions with those in the latter group having a higher rate of developing these issues than those with depression alone.[22] The results further found that younger men in their 20s struggling with co-occurring depression and anxiety also had significantly higher rates of developing chronic health conditions.[23] Outcomes also suggest that women who struggle with anxiety alone and men in older age groupings struggling with depression alone, as well as those with co-occurring depression and anxiety, also develop chronic health conditions at higher rates. Still these results did not meet the full burden of the statistical requirements to indicate they can be generalized to the larger population.[24]

WHAT DOES ALL THIS MEAN FOR THE EMDR THERAPIST?

Trauma/PTSD, depression, and anxiety are the most common areas of treatment focus for EMDR therapists. If you look at the numbers and do the math, and if you also understand the research, it becomes clearer and clearer: You will be treating people with chronic pain and chronic health conditions. And the more severe the trauma, depression, and anxiety, the more the likelihood of co-occurring chronic pain and/or chronic health conditions, and the more severe these conditions will likely be.

IT'S NOT JUST A BODY ISSUE... PSYCHOPHYSIOLOGY

It goes beyond the overall numbers and vastness of a client's many issues. It's about how problems develop, how they coexist and how things work neurobiologically and *psychophysiologically*. You are not treating one issue in isolation of others. Mental health problems do not exist in a vacuum. The idea of "the mind-body connection" is a bit of a misnomer because the mind has never been disconnected or separate from the body to begin with. The mind is a full body experience complete with a simultaneous and integrated dynamic between cognition, emotion, and sensation. Of course, that's how we set up EMDR targets to reprocess maladaptive and pathogenic information and memories. But when we get down to it, the mind involves different substructures of the brain, neural networks throughout the body, and even body systems constantly working together individually and collectively to create the overall experience we conceptualize as our *mind*. Our bodies are integrated into this experience.

There are several questions to consider for our clients or even ourselves. How are our minds operating? Are these substructures and neural networks impacting the body's different systems in such a way that they are directing the body toward states of health or unhealth? Are we operating from neural templates for restoration or breakdown? Again, this is not a psychological situation. We are integrated beings. We are one system made up of many subsystems working together, extending to the larger social networks with which we interact. And it is always a bidirectional dynamic where there are feedback loops at multiple levels, either reinforcing the states of health or unhealth, the restoration and healing, or the pain and breakdown. Psychology is involved, but so are issues related to neuroplasticity, neurochemistry, interpersonal neurobiology and attachment, functioning of the neuroendocrine and immune systems, and so on. The

hypothalamic-pituitary-adrenal (HPA) axis, which governs our primary stress response is part of the neuroendocrine system, after all.

And we experience pain in the brain, not the body. This is essential to understand. Pain involves many aspects and systems of the body, but the experience, or feeling of pain, occurs in the brain. When sensory nerves in the body as part of the peripheral nervous system become stimulated in certain ways, a relay system is turned on that is a complex network of nerve cells communicating between the peripheral and central nervous systems involving neurotransmitters and other biochemicals as well as other biosystemic processes involving multiple systems of the body. While many different processes co-occur in the body simultaneously, the experience of pain occurs at the brain level when the substructures of the conscious brain involved in processing pain are activated.

The experience of pain is a dynamic between the stimulation of the sensory nerves and a wide array of multisensory information perceived as context for the current situation. As EMDR therapists we can accurately surmise this has much to do with the person's past as the brain reconstructs those levels of threat, and the person experiences pain based on information from both their somatosensory system related to the information being communicated from the sensory nerves as well as somatosensory information that is being triggered from previous life events.[25] *In short, previous life experiences serve as a template for how we experience pain in the present.* It's no wonder why people with histories of trauma are more susceptible to developing chronic pain conditions. Trauma hurts...on a somatosensory level. Trauma also primes the body for how we will experience future pain neurobiologically (structurally and chemically).

And chronic pain is not the same as *normal* pain or what is called acute pain. With acute pain, the brain and body work hard to down-regulate pain by suppressing the pain signals to create less pain. Chronic pain results from neuroplastic changes in the brain and systemic changes throughout the body. With chronic pain, the brain and body work together to create more and more pain, and the pain syndrome becomes the primary problem versus the initial cause of the pain whether it was an injury or some other source that initially activated the sensory nerves.[26] So, with chronic pain, the pain progressively becomes worse over time for a multitude of reasons.

IT'S AN AIP ISSUE

Treating chronic pain and health conditions is all about the Adaptive Information Processing Model and using the Adaptive Information Processing System. As Dr. Francine Shapiro stated, *"An information-processing system that is intrinsic and adaptive... is configured to process the information and restore mental health much of the same way the rest of the body is geared physiologically to heal when injured."*[27]

It's about restoring health. I start my trainings by stating, *"the body wants to heal–it just needs to remember how."* Our bodies are innately wired to be in states of health and to heal when our health becomes disrupted. Dr. Francine Shapiro was referring to this and what the Adaptive Information Processing Model is all about. It is equally true for chronic pain and health issues as mental and physical health are not separate. Just as our role as EMDR therapists is to identify and clear the blocks and barriers getting in the way of health with our clients with PTSD, C-PTSD, depression, anxiety, addiction, etc., the same is true with our clients with chronic pain and health conditions. Of course, these clients also most certainly have struggled with trauma, depression, and anxiety, etc., in addition to their pain and/or health issues as these are *syndrome states* with multifactorial causes and multifaceted manifestations. I cannot emphasize enough how integrated everything is and how it is all working together. We still treat these issues with the EMDR protocols we know, but often with some modifications.

We also use techniques, interventions, and protocols based on the AIP Model that are specific to these populations for various targeted clinical reasons. Perhaps it is due to a specific maladaptive neural template perpetuating an autoimmune disorder. Or we target problematic neuroplastic changes in areas of the brain that

process pain or use strategies to shift the neurochemical responses that promote systemic inflammation and pain amplification. Fortunately, interventions dovetail together nicely once we have that foundational understanding and clear case conceptualization.

As EMDR therapists, we are uniquely positioned to look for, see, and target the true underlying causes of our clients' struggles instead of endlessly treating their symptoms. So much of what we are already doing just needs to be done with a contextual shift while learning some of these additional skills, protocols, and interventions. Of course, developing a little bit of knowledge specific to the neurobiology of chronic pain and chronic health conditions is essential to achieve this contextual shift and understand when and why to use the other skills and protocols. But this is all about becoming an integrated EMDR practitioner. With EMDR, we call it *reprocessing*. But what we are trying to achieve is *adaptive integration*. Let's start with us.

Gary Brothers, LCSW is both an EMDRIA-certified EMDR therapist and approved consultant with over 25 years of experience, the last 14 years specializing in treating clients suffering from chronic pain and health conditions. In addition to treating clients in his private practice, he teaches workshops and trains others in his models of care that uses EMDR in conjunction with other strategies based on neuroscience and neurobiology. He can be contacted at www.garybrotherscounseling.com.

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