

UNDERSTANDING AND TREATING CHRONIC PAIN AS TRAUMA, WITH EMDR

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INTRODUCTION

It is generally accepted that pain, particularly chronic pain, involves psychological factors, whether as a reaction to pain (Fordyce 1975; Turk & Meichenbaum, 1989) or as a predisposing factor for pain (Engel, 1959, Goodwin & Attias, 1999). Different theoretical approaches emphasize the role of psychological factors differently. For example, Cognitive-behavioral approaches emphasize people's reactions [to injury and pain] as a factor in causing and maintaining pain. One of the main theoretical constructs of CBT is secondary gain which is based on operant conditioning and posits that pain can be maintained by 'rewards' such as too much attention or sympathy. Psychodynamic approaches place more emphasis on pre-existing trauma and emotional states as a causal factor for chronic pain (Engel, 1959, Goodwin & Attias, 1999). One of the main psychodynamic theories of pain is .. which posits that pain is .. There is evidence to suggest that there is some truth to both approaches. However, the research regarding behavioral theories of chronic pain has often produced mixed results (..) and been found to have many problems (King..). However, there is reliable data to suggest that trauma and emotional processes associated with trauma are often associated with chronic pain.

If chronic pain is somehow a product of trauma, then this would have implications for the understanding and treatment of pain. In contrast to behavioral operant conditioning models, Trauma is not a superficial 'after the event' response but an on-going psycho-biological condition which involves severe anxiety, increased physiological arousal, and dissociation between thoughts and feelings. The psychological treatment of trauma and psychiatric conditions with traumatic origins presents unique therapeutic challenges including greater need for client safety (emotional and physical); methods of facilitating emotional regulation; techniques for reducing dissociation between thoughts and feelings and resolution of past trauma.

In this workshop we will seek to understand pain as both a manifestation of psychological trauma and a cause of trauma. A theoretical model of pain based on current theories of Posttraumatic Stress and dissociative processes will be presented. A treatment model for pain as a trauma-

related condition will be presented, based on Eye Movement Desensitization and Reprocessing (EMDR). EMDR is a new treatment for trauma which has been found to be effective with physical distress associated with trauma (McCann, 1994).

Part one: Similarities between Pain & Trauma

It is recognized in principle that trauma can cause pain. This is reflected in the use of psychiatric diagnoses such as conversion disorder, Briquets syndrome/somatization disorder. The idea that pain can be a manifestation of trauma is not new. As long ago as 1959 Engel (an internist trained in psychoanalysis) suggested trauma and pain are related in a mutually influential way. Engel suggested that trauma could act as a predisposing factor for pain and that pain could act as a trigger for unresolved trauma.

- 1) Trauma as a predisposing factor for pain: Engel believed that early traumatic memories, including pain, are permanently registered in the body as “pain memories” and become part of the body-pain image.
- 2) Pain as a trigger for trauma: He also suggested that illness can trigger previously unresolved trauma, that a current illness can “loosen the moorings” of past traumatic events in the unconscious.

In recent years there has been extensive research regarding trauma and pain with a finding that trauma and pain may occur together in anywhere between 14 and 64% of cases of chronic pain (Toomey et al, 1993; Millard & Kinsler, 1992; Mendelson 1982). This research supports Engel’s contention that trauma and pain are related. It is also possible to make specific statements about the nature of that relationship:

1. Early childhood Trauma can predispose a person to pain later in life; Patients with pelvic pain have been found to have rates of childhood sexual abuse and physical abuse from 14 to 64%. (Walker et al, 1998; Fry et al 1993, Toomey et al, 1993)
In patients with pain in other areas of their body, rates of childhood abuse were found to range from 28 – 48% (Wurtele et al; 1990, Goldberg, 1994; Toomey et al, 1995).
2. Trauma can be a direct cause of chronic pain.
Between 45% and 80% of Vietnam veterans with PTSD also have a diagnosis of chronic pain (White & Faustman, 1989, Beckham et al, 1997, O’Toole, 1998)
3. When associated with physical injury, trauma can also maintain or exacerbate pain
Patients with PTSD and chronic pain were found to have higher levels of pain and disability when compared with patients with pain and no PTSD (Geisser et al, 1996; Sherman, 1998)

4. Pain can also cause trauma.

Women with PTSD following obstetric or gynecological procedures attributed their trauma in part to excessive pain (Menage, 1993).

Schreiber & Galai-gat, (1993) reported the case of a patient who lost his eye in an accident developed PTSD. The core trauma was found to be uncontrolled pain while waiting 7 hours for surgery.

So what are the symptoms of trauma and how might they lead to physical pain?

Part two: Symptoms of trauma as a cause of chronic pain.

The three main symptoms of PTSD are;

- increased physiological arousal, (panic attacks, hypervigilance)
- re-experiencing the trauma (intrusive thoughts, behavioral repetition)
- avoidance symptoms, (emotional numbing, dissociation)

Each of these symptoms can lead to pain in different ways:

1. Increased physiological arousal can lead to pain through “lost buffering capacity” as a result of biochemical changes associated with excessive arousal. Prolonged stress associated with trauma is thought to lead to depletion of natural opioids and reduced tolerance to pain. As Putnam (1977) has observed:

“Trauma victims have lost some “buffering” capacity because their stress responses have been driven further from normal homeostatic ranges by posttraumatic compensatory feedback process. We can anticipate that apparently small changes in stress, may lead to disproportionately large responses.”

So increased physiological arousal is associated with depletion of natural chemical buffers for pain.

The second group of trauma symptoms that can lead to pain are re-experiencing symptoms.

2. Re-experiencing symptoms. Re-experiencing the trauma refers to symptoms such as intrusive thoughts and memories and behavioral re-enactment. Behavioral re-enactment which can manifest as risk-taking behavior, a lack of self-care including working too hard, failure to attend to minor injuries which become cumulative and even self-mutilation in severe cases. Van der Kolk has talked about the importance of early trauma in memory functioning and in the compulsion to repeat trauma and to re-enact and create traumatic or victimized roles. Various authorities have documented the tendency for people with a history of abuse or trauma to leave themselves vulnerable to self-harm. For example, Hallett (1996) found that police officers with a history of child abuse were more likely to work in unit with high exposure to trauma (eg; homicide, child sexual abuse) than officers with no such history. Blumer & Heilbronn (1989) reportedly found the histories of chronic pain sufferers filled with neglect, abuse and

abandonment and that they often started work from an early age and worked long hours.

So re-experiencing symptoms of trauma can both predispose a person to pain and cause pain through lack of self-care and risk-taking behavior.

The third group of trauma symptoms that can lead to pain are avoidance symptoms.

3. Avoidance. Avoidance symptoms in PTSD include denial, alexithymia and/or dissociation. Alexithymia is not a diagnosis but refers to an inability to recognize and express emotions. Alexithymia is a common response to trauma but it can also result from emotional neglect. Dissociation refers to a more profound disconnection between the person and their feelings. Dissociation is by definition “when memories of what has happened cannot be integrated into one’s general experiential scheme and are split off from the rest of experience.” Both dissociation and alexithymia interfere with normal somatic perception, which is one of the leading causes of somatization. Krystal (1978) first noted that in people with PTSD emotions seem to lose much of their alerting function and that a dissociation was often set up between emotional arousal and behavior. Dissociation may produce so-called ‘negative symptoms’ such as anesthesia and loss of movement or coordination or ‘positive symptoms’ such as physical pain. Pain caused by trauma is known as somatoform dissociation or conversion disorder, (Nijenhuis & van der Hart, 1999).

Studies of patients with pathological dissociation such as Dissociative Identity Disorder (or Multiple Personality Disorder) have confirmed the connection between trauma and pain with the finding of high rates somatization (Armstrong & Loewensten 1990, Saxe et al, 1994). In the DSM IV field trials Pribor et al (1993) found more than 90% of women who met the criteria for somatization disorder reported a history of sexual abuse before the age of 17.

So avoidance symptoms can lead to chronic pain through failure to discharge emotional tension as a result of misinterpretation or failure to attend to emotional signals.

Of course, not all chronic pain is caused by trauma. As noted, a large percentage of sufferers may also be alexithymic as a result of neglect. Many sufferers have a background of chronic stress that is not necessarily traumatic but does result in physiological strain and self-injurious behavior. In addition anywhere between 10 and 15% of pain sufferers may have undiagnosed physical pathology (Moene, 2000). Therefore it

is important to begin the treatment of pain with a comprehensive assessment including screening for trauma and dissociative emotional processes.

As we can see, trauma and traumatic emotional responses are often involved in chronic pain. What are the implications of this for the treatment of pain?

Part three: Principles of Treatment for Pain and Trauma

Current guidelines for the treatment of trauma incorporate three basic principles:

1. Safety and support,
2. Mastery of feelings
and
3. Resolution of past trauma

Briefly what these principles embody is a therapeutic process wherein it is understood that the patient's presenting problems may be based on previous emotional trauma that they find too distressing to bear or face and that therapy must involve assisting the patient to confront repressed emotional material in a curative way. The first aspect of this is the provision of support, which builds a sense of safety which is a precondition for the patient being able to confront and resolve traumatic emotions and memories. The therapeutic relationship is an important source of support. Safety can also come from techniques for emotional regulation and self-soothing.. in a controlled way, ie; where upsetting feelings and sensations are regulated. The experience of confronting their problems without feeling overwhelmed by physical or emotional pain creates a sense of self-mastery which is unique and which allows for the development of new more adaptive attitudes and behaviors.

Many psychological treatments incorporate these elements to some degree. However, Behavioral approaches particularly emphasize a giving the patient a sustained exposure to the distressing situation until eventually extinction occurs. However, if a person is exposed to their pain or trauma without first ensuring they do not experience excessive or overwhelming pain or anxiety, exposure can actually have the effect of reinforcing their problem (van der Kolk, 1997). When a patient is exposed to their pain or trauma without adequate moderation of distressing affect, then re-traumatization or strengthening of the painful feelings can occur.

An approach is thus needed which enables patients to be exposed to their pain in a controlled and safe way so that they can 'unlearn' physical and psychological responses underlying pain and adopt new more adaptive attitudes and beliefs. Eye Movement Desensitization and Reprocessing (EMDR) offers a comprehensive treatment approach wherein the patient can be exposed to their distressing feelings in a controlled way, thus ensuring that the exposure leads to extinction. EMDR also provides procedures for cognitive integration and consolidation of positive changes that the client experiences.

Part four: EMDR as a treatment for pain as trauma

EMDR treatment of trauma and/or pain is based on a specific protocol consisting of the following 8 stages: History, Assessment, Preparation, Desensitization, Installation, Body-scan, Closure, Re-evaluation. The therapeutic elements of EMDR that I will be focusing on include safety, controlled desensitization, methods for reducing dissociation and increasing integration between thoughts and feelings and installation of antidote-imagery/pain-coping resources.

Safety.

The EMDR approach places great emphasis on client safety. In the treatment of pain this involves the therapist ensuring the client has adequate control over their physical pain, ie; that their pain is not excessive to the point that they feel overwhelmed by it and cannot concentrate. This can be done through direct questioning, which should include asking about sleeping patterns, feelings, and any suicidal thoughts as well as behavioral observation, (for example, persistent sweating, loss of colour, grimacing). Pain control can be achieved by proper medication, adequate support and behavioral strategies (eg; pacing, relaxation, controlled breathing etc). Once it is established that the client has access to adequate means of maintaining safety in the fact of their trauma or pain, the next stage of therapy can be commenced.

Evoking the problem.

The next step is to get the client to focus on the core emotional aspects of their problem. In the treatment of pain it needs to be established if the pain is trauma based or as a result of multiple physical injuries associated with neglect, or genuine physical pathology. If the pain is trauma-based, it is vital to get the client to describe the original trauma or trauma's that caused the pain or are associated with it. If the trauma has been repressed or denied, which the presence of a somatic problems usually indicates, then this may require intensive probing and questioning. For example, a woman who developed chronic pain after some heavy equipment fell on her at work began to have flashbacks of child sexual abuse and feelings of helplessness and loss of control. In treating her present pain and trauma, it was also necessary to address the past unresolved sexual abuse trauma.

If the pain is more associated with neglect and repetitive minor injuries the therapist may target the present pain. This involves asking the client to describe their pain not only in terms of how it feels but also including any relevant thoughts, feeling and associations. The aim is to develop

an emotionally meaningful description of the pain which can be used as a 'target' in the desensitization phase of EMDR. This involves getting the client to describe their pain in terms of how it feels, for example, hard or soft, hot or cold etc. Clients are also asked how their pain makes them feel about themselves. This question usually taps into traumatic history where it exists, including feelings of helplessness or powerlessness. The clients description of their pain is used as a basis for EMDR desensitization.

Many clients are not used to talking about their pain because of repression or denial and they may need help to find the right words to describe it. EMDR incorporates a variety of methods designed to help clients make contact with deeper feelings and put words to them.

Methods for accessing repressed emotional material/reducing dissociation

1. Detached Observer stance:

The detached observer stance is a central therapeutic element of EMDR which involves the use of specific questions way to help the client to think about their problem(s) in a less emotional way. For example, rather than asking the client how their pain feels, the therapist asks the client what they feel when they think of their pain [or trauma]. The aim is to access the clients problem without them losing their sense of themselves.

2. Projective techniques (drawing):

Because pain is often associated with trauma and/or may be maintained by repressed or dissociated thoughts and feelings, the therapist needs some way of bringing this material to the surface. Drawing is thought to access repressed emotional material that is not accessible through direct questioning. The client is instructed to draw a picture of themselves with their pain. Client's drawing often reveal how they feel about themselves in relation to their pain. For example, a man who lost a finger in an industrial accident drew a picture of himself on his knees and then when he looked at the picture he'd drawn he exclaimed in surprise, "I feel maimed.." This provided a very meaningful self-referential statement from which to commence desensitization. As this illustrates, you are treating the person, not the pain. This information is important in constructing a meaningful and effective 'target' for EMDR processing.

3. Use of metaphors:

Metaphors are another way of accessing non-critical parts of the brain and meaningful associations. The client is asked to describe their pain in terms of what the feelings of the pain remind them of. For example, “when you think of your pain, what does it remind you of?” or “what does the feeling of the pain remind you of?”. The client with chronic pain might describe their pain in metaphorical terms, for example as being like a “hot poker” or a “stabbing sensation”.

Once a meaningful description of the pain has been obtained, ie; once which incorporates core beliefs and/or repressed or dissociated feelings and thoughts, the reprocessing stage may begin. At the heart of EMDR is a controlled desensitization procedure which incorporates bilateral stimulation to moderate physiological arousal during the exposure stage.

Desensitization stage:

Change is induced by instructing the client to observe their pain and any related thoughts and emotions whilst simultaneously attending to bilateral stimulation, usually in the form of eye movements induced by horizontal hand movements. They are given no other instruction other than to observe the stimulation and “let whatever happens happen.”

After each round of eye-movements, the client is assisted to re-orient their attention back to their body and comment on how they feel. Quite often, they report feeling more relaxed, less distressed and a feeling of detachment from the physical or emotional pain.

The therapist continues with this until the client reports no pain or it stops changing.

If the therapist has failed to ensure adequate safety or to obtain a sufficiently relevant description of the pain, desensitization may not occur. If the therapist has not targeted the right core material.. Likewise if the pain is ‘ecological’ the client may report no-change.

Installation:

Following successful desensitization of physical or emotional pain, positive thoughts and feelings are ‘installed’. The installation phase involves helping the client to cognitively integrate the changes that have occurred in their feelings. It also involves helping the client notice and accept

changes that have occurred in how they feel about themselves in relation to their pain. If the desensitization has been targeted at a trauma, then this may involve a positive cognition and realization that “its over” and with that the realization that they don’t need to hurt anymore (physically or emotionally). If the desensitization target has been present pain, then this involves asking the client to link the feelings of relief with images or situations that they can remember which involved similar feelings to the feelings of relief that they are having now. There is no limit to what clients can come up with at this stage, anything from a comforting cloak to a healing light. This should be coupled with a cognitive interpretation regarding how they feel about themselves. Eg; ‘I can control my pain’. These ‘creations’ give the client a resource with which to manage future pain.

Case-example

A Vietnam veteran sought help complaining of severe stomach pains whenever he faced stress or had to make decisions. He stated that the pains were so bad that sometimes they caused him to vomit and lose control of his bowels at the same time and that he had to go to hospital and get morphine to stop the pain. He said that he'd had this problem ever since returning from the Vietnam war some 30 years ago and that he'd seen numerous doctors and psychiatrists but that no one had been able to help him. He lived in fear of the next attack, and at least once a week he would find himself doubled up with pain.

After some review of his history it emerged that he was severely traumatized by two things from Vietnam, 1) various war-time experiences such as seeing wounded comrades and 2) the responsibility of having to make decisions that affected men's lives. In his present life he would feel anxious whenever he had to make any significant decision that affected the life of himself and his wife. This would often escalate into crippling pain.

This man's pain was clearly trauma-related and it was decided to desensitize his war-time traumatic memories including his fear about making a wrong decision. We did EMDR on all the past and present 'triggers' for his pain including war-time memories such as seeing helicopters coming in with wounded men, driving through enemy territory etc and present-day triggers such as having to make decisions about their life and his fear of making the wrong decision. Although the patient was aware of the traumatic effect of some of these situations, the EMDR treatment was the first time he'd ever been exposed to them in a controlled way. Following EMDR desensitization he reported feeling less distressed by memories of his war-time experience. He also resolved the fear of making a wrong decision which reduced his physical anxiety when faced with important decisions in the present. He continued to be vulnerable to physical tension when under stress, but no-where near as severe as previously and when they did come he was able to relax himself using bilateral stimulation a-la EMDR. He was greatly pleased at finally finding something which gave him some feeling of control over his pain problem. Overall his quality of life improved after this, he felt much more relaxed and suffered much less pain.

Although the patient wasn't completely 'cured' in the manner often reported in EMDR treatment of single trauma, this case illustrates the use of EMDR to treat an underlying trauma that was maintaining a pain disorder, and also the use of EMDR to help control future pain.

It is suggested that EMDR can be an effective treatment for a range of pain disorders, particularly those involving trauma or dissociative processes. Where chronic pain is associated with significant physical pathology, including 'wear and tear" EMDR can still be effective, particularly when married with emotional skills training approaches (eg; Affect-Management Skills Training). But physiological damage associated with long-term injury processes means pain-relief may be limited.

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