# EMDR in the treatment of chronic pain/PPS

(Persistent physical symptoms)

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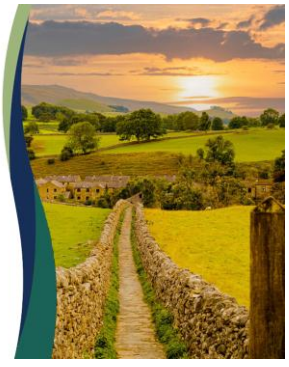



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## Overview

- What kind of a problem is chronic pain/PPS?
- Why EMDR?
- A trauma-informed approach based on EMDR
- 5 key elements of EMDR therapy
- Mobile apps based on EMDR



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## Why pain?

- 45% of primary care appointments attributable to medically unexplained symptoms.

  Nimnuan et al 2021
- 50% of patient presentations in secondary care settings medically unexplained.

  Haller at al, 2015
- Affects 20% people over age 45
- Common symptom of PTSD



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## What kind of a problem is chronic pain/PPS?

'PTSD is overall more prevalent in clinical cohorts of persons with chronic pain and particularly in those with widespread pain'.

Siqveland et al, 2017

'If you have a patient with one of these problems [pain or PTSD], look for the other as it will likely be present.'

Fishbain, 2020


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## What kind of a problem is chronic pain/PPS?

- PTSD is associated with possibly the highest frequency of ill-defined medical symptoms among all psychiatric disorders

Andreski et al., 1998.

- 'the trauma spectrum could also be called the 'neglect spectrum' – neglect and attachment better predicts severity of pathology than trauma.

John O'Neill, 2023


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## What kind of a problem is chronic pain/PPS?

- 'Anxious and avoidant attachment are more strongly associated with health problems and increased pain respectively.'

McWilliams & Bailey, 2010

- 56-62% of sufferers of medically unexplained symptoms have anxious or avoidant attachment.

Schroeter et al., 2015; Mc Williams, 2017


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## What kind of a problem is chronic pain/PPS?

'64% of patients with dissociative disorders met criteria for somatization disorder.' Saxe et al, 1994

"Dissociative Disorder and PTSD patients scored higher on somatoform and psychoform symptom scales and alexithymia and reported more childhood adversities and higher trauma load." Kienle et al, 2017


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## Dissociative phenomena in chronic pain/PPS

'flashbacks'

'The physiological model of kindling represents a compelling rationale for the symptoms of complex PTSD. Stored autonomic energy from a truncated freeze response might well provide the impetus and fuel for development of kindling in trauma. Involvement of arousal and procedural memory circuitry is clearly implicated in the model of traumatic kindling.' - Robert Scaer, 2001


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## Shame

'Shame drives dissociation and dissociation drives shame – they are both ways of surviving by disconnecting.'

Carolyn Spring, 2019

'Better to be a bad child with good parents than a good child with bad parents.'

Jim Knipe, 2015


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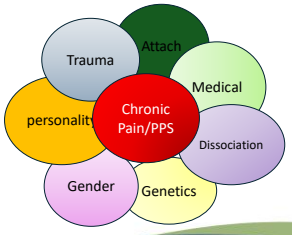
## Trauma is not the only risk factor for chronic pain/PPS!



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It is far more important to know what person the disease has, than what disease the person has.

—Hippocrates



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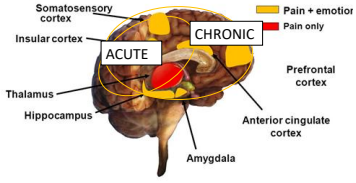
## What kind of a problem is chronic pain/PPS?



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## What kind of a problem is chronic pain?

- '.. maladaptive cognitions contribute to the maintenance of emotional distress and behavioral problems.' Hoffman et al, 2010
- 'PTSD is associated with possibly the highest frequency of ill-defined medical symptoms among all psychiatric disorders.' Andreski et al., 1998.
- 'The major insight that emerged from neuroimaging studies is that chronic pain is a disease of the brain.' Borsook et al, 2010
- "PTSD sufferers have significantly higher rates of dissociation, somatization and affect dysregulation … including those who no longer meet the criteria for PTSD." van der Kolk, 1998



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## Why EMDR?

1. Efficacy with PTSD
2. Efficacy with chronic pain/PPS
3. More consistent with brain functioning
4. Addresses dissociative phenomena



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## Why EMDR?

Efficacy with PTSD

"The understanding that the process of pain chronicity is closely linked to maladaptive emotional processing forms the pathophysiological basis for the application of EMDR therapy in the treatment of chronic pain: an established method for processing emotionally stressful experiences in trauma therapy."

Jonas Tesarz 2019



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## Why EMDR?

- 28 peer reviewed studies (2000 – 2020)
- 8 x RCT's
- N = 523 participants; EMDR/360; TAU/163
- Rx: EMDR + pharmacological inputs, counselling, solution-focused, CBT, tinnitus retraining.
- Reduced severity and frequency MUS & secondary outcomes (PTSD, depression, anxiety)
- Moderate to large effect sizes
- "promising and emerging evidence for the effectiveness of EMDR"

Staton & Wilde, 2022



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## Why EMDR?

Efficacy with chronic pain/PPS

".. The studies show that EMDR led to greater reduction in pain severity compared to waitlist, a neutral interview, TAU, standard medication, guided imagery or eclectic therapy. EMDR therapy was found to be associated with a decrease in comorbid symptoms such as anxiety and depressive symptoms, improved pain-related cognitions and quality of life."

Matthijssen 2020.



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## Why EMDR?

Effects on brain functioning

'EMDR led to decreased activation of brain areas [STS, STG] responsible for hyperactivation associated with pain related traumatic memories.' Amano et al, 2013

'Increased activity in anterior cingulate gyrus and left frontal lobe.' Levin et al, 1999

'reduced fear response through activation of superior colliculus and medio-dorsal thalamus' Baek et al, 2018



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## Why EMDR?

Physiological effects

"Although EMDR may produce cognitive shifts that help patients reprocess their traumatic memories or otherwise relate to them more adaptively, EMDR's physiological profile may also serve as a curative factor." Gunter & Bodner, 2009

"Physiological studies have found that the EMs are associated with a de-arousal response driven by increased parasympathetic relative to sympathetic changes." Landin-Romero, 2018



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## Why EMDR?

"Bottom-up processing, by itself, does not resolve trauma, but if the patient is directed to track and articulate sensorimotor experience while consciously inhibiting emotions, content and interpretive thinking, it can gradually be assimilated.

Bilateral stimulation is likely to act on subcortical processes that have little or nothing to do with insight and understanding."

van der Kolk 2002



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## Why EMDR?

Reduces Dissociative phenomena

'Like Pierre Janet's model of psychopathology, EMDR is based on a structural dissociation in which traumatic affect, cognition, and memory are stored in a dissociated compartment of the psyche. In Van der Hart, Nijenhuis and Steele's (2006) elaboration of Janet's theory, the dissociated compartment is required to contain a part-self or ego state with a subjective sense of its own separate identity. This requirement is not present in EMDR's adaptive information processing model, but can be accommodated within it quite easily.'

Colin Ross, 2012



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## Why EMDR?

Reduces Dissociative phenomena

"somatic symptoms of hysteria represent disguised representations of intensely distressing events which have been banished from memory. Janet described these patients as governed by "fixed ideas." Breuer and Freud wrote that, "hysterics suffer mainly from reminiscence."

Judith Herman 1992, 2022



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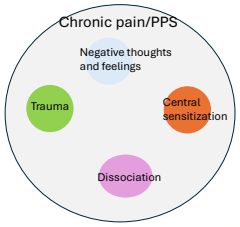
## Why EMDR?




Psychological treatments chronic pain/PPS

Exposure (Fordyce)
CBT (Fordyce, Beck)
ACT (Hayes)
'Explain Pain' (Moseley)
Pain Reprocessing (Schubiner)

EMDR (Shapiro)



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## Why EMDR?

".. the purpose of EMDR is to integrate dissociated elements of trauma so that the cycle of intrusion and withdrawal is resolved. EMDR is a healing-recovery model that aims at resolution and long-term remission. Thus, no matter what the diagnosis, EMDR is focused on healing a dissociated psychological structure. EMDR treatment is always the treatment of dissociation, even when a dissociative disorder has not been diagnosed."

Colin Ross, 2012



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## How does EMDR address dissociative phenomena?

1. Phased approach (the 3-stage model)
2. Problem definition (EMDR 'targets' – 'BASK' model)
3. Titrated exposure (dual attention/bilateral stimulation)
4. Somatic focus (EMDR check-in)
5. Integration ego states/parts

BASK: Behavior, Affect, Sensation, Knowledge



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## Trauma-informed approach based on EMDR

The 3-stage model

1. Safety and stabilization
2. Remembrance and mourning
3. Reconnection

Judith Herman, 2022



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## Trauma-informed approach based on EMDR

| Hermans 3 stage model | Herman's 7 phases | Shapiro's 8 stages EMDR | Trauma-informed treatment pain |
|---|---|---|---|
| Safety and stabilization | Symptom control<br>Affect tolerance | History<br>Preparation<br>Assessment | Trauma-informed history<br>Pain control/affect management skills |
| Remembrance and mourning (Processing) | Authority over Memory<br>Coherent narrative<br>Restore self-esteem<br>Restore relationships | Desensitization<br>Installation<br>Body scan<br>Closure | Address dissociative phenomena<br>Trauma processing |
| Reconnection | Meaning | Re-evaluation | Acceptance (Meaning)<br>Reintegration |



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## Trauma-informed approach based on EMDR

5 key elements

1. Trauma-informed case conceptualization
2. Pain control / affect management skills
3. Recognize and address dissociative phenomena
4. Trauma processing (with EMDR)
5. Reintegration


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## Core skills EMDR

1. Trauma-informed case conceptualization
2. Selecting appropriate EMDR 'targets'
3. Knowledge of AIP model
4. Working experientially
5. Therapeutic alliance
6. Ability to recognize dissociation
   (+ integrate ego states)
7. Resource development
8. Dual attention/bilateral stimulation (BLS)
9. Facilitating new associations
10. Reintegration (posttraumatic growth)


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## Trauma-informed case conceptualization

1. Trauma + Health/medical history
   (What happened that couldn't be expressed/processed?
2. Does patient have PTSD (Acute vs complex)?
3. Assessing and addressing dissociative phenomena
4. Phase-oriented treatment plan


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'The conflict between the will to deny horrible events and the will to proclaim them aloud is the central dialectic of psychological trauma.'

**Judith Herman**

**'Trauma and Recovery'**



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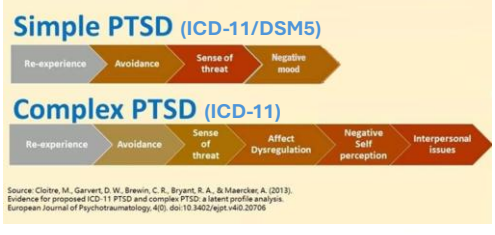




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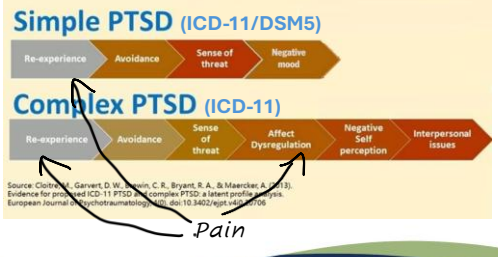




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## Acute PTSD and pain

Trauma → pain

- Phantom Limb pain
- Whiplash pain
- Vaginal pain
- Muscle pain
- Tremors
- TMJ





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## C-PTSD and pain

Trauma
Em neglect
Adversity ++
Illness/disease
} pain

- Fatigue
- Headaches
- Gastro-intestinal problems
- Muscle pain
- Back pain
- Tremors
- Paralysis





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## Its not all about trauma

- Musculoskeletal injury
- Arthritis
- Fibromyalgia
- Gastrointestinal problems
- Endometriosis
- Cancer pain
- Trigeminal neuralgia
- Peripheral neuropathy
- Auto-immune diseases
- COVID-19 + Diabetes, obesity, hypertension

} Chronic pain



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## PTSD +/- disease + time = > distress




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## Assessing and addressing dissociative phenomena

Pain is a dissociative experience; it separates us from what's going on around us"

- Marlene Hunter



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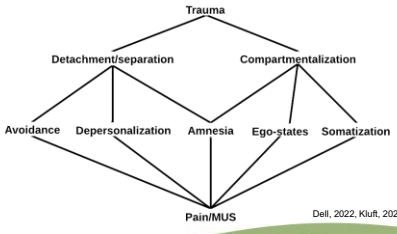
## Assessing and addressing dissociative phenomena




Dell, 2022, Kluft, 2022



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## Assessing and addressing dissociative phenomena

Compartmentalization

ANP/'Manager' EP/'exile'




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## How does EMDR Address dissociative phenomena?

Reintegrating Ego states

Conflicts between different parts of the self can cause physical and emotional symptoms. If the inner state of conflict is strong enough, pathways to healing may be blocked by .. ego states that are at odds with one another. When this is the case it is important to find and work with positive parts of the self that can bring the self together in a cooperative effort to seek physical, emotional and spiritual wholeness. - Phillips, 2000



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## Vertical vs Horizontal models personality


Repression

Dissociation



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## Vertical vs horizontal models personality

- "Rather than a unitary place the unconscious might be better understood as containing parts that have all kinds of longings… "
- "We are moving towards a conception of mind as a non-linear, dialectical process of meaning construction… a view of the mind as a configuration of discontinuous, shifting states with varying degrees of access to perception and cognition."

Bromberg, 1998



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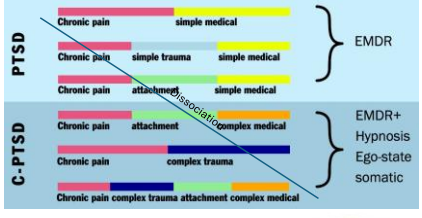
## Assessing and addressing dissociative phenomena



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## Pain/trauma processing (with EMDR)

5 EMDR 'target' options

1. Traumatic memory
2. Present pain
3. Emotional reactions to pain
4. Pain triggers
5. Resourcing



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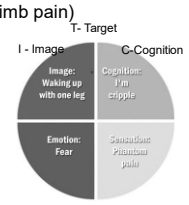
## Pain/trauma processing (with EMDR)

EMDR 'target' (phantom limb pain)

'TICES'

1. T - Target
2. I - Image
3. C – Negative cognition
4. E - Emotion
5. S - sensation



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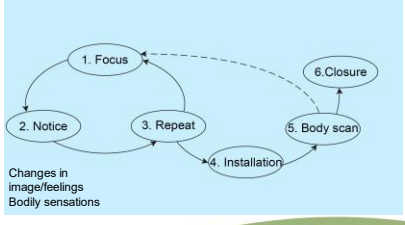
## Trauma processing (with EMDR)



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## Trauma processing (with EMDR)

1. “Focus”

“Think of that memory and those feelings and the negative cognition (optional), notice the BLS and just let whatever happens happen.”



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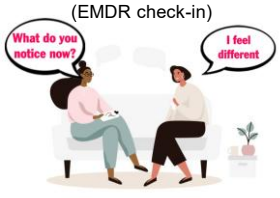
## Trauma processing (with EMDR)

2. “Notice”
(EMDR check-in)



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## Trauma processing (with EMDR)

Effects of dual attention/BLS

1. Decreased arousal
2. Relaxation response
3. Increased attentional flexibility
4. Distancing effects
5. Increased access +’ve memories

Elofsson et al 2008; Amano et al, 2016, Reichel et al, 2021



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## Trauma processing (with EMDR)

3. Installation




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## Trauma processing (with EMDR)

Some modifications to standard PTSD protocol

1. EMD vs EMDR
2. Continuous dual BLS
3. Titrated exposure
4. Tracking and facilitating
5. Resourcing



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## Somatic focus

"If we can help our patients tolerate their own bodily sensations, they'll be able to process the trauma themselves,"

- Bessel van der Kolk

"Somatic awareness within EMDR Therapy gives us a way to work with nervous system states and the dysregulation that is associated with trauma. "

- Dr Arielle Schwartz

"EMDR reprocessing starts and ends with the body."

- Catherine Livov



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## Somatic focus

(Tracking and facilitating changes)

1. Patient self-report;
   - "and what do you notice now?"
   - "what's happened to those feelings?"
2. Observing non-verbal signs in patient;
   - Tuning into changes in posture, facial expression, skin tone, voice tone, eye contact, movement.
3. Observing your own non-verbal reactions;
   - Feeling tired, energized, anxious, sad, lighter, heavier, warmer, more relaxed, more "in-tune" with patient.



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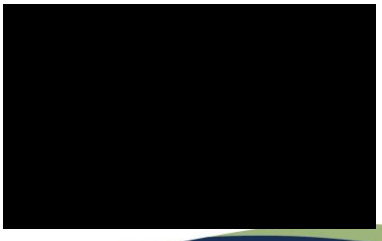
## Case example: EMDR processing of emotional reactions to pain (target)





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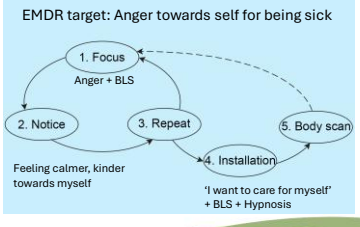
## Case example: EMDR processing of emotional reactions to pain (target)



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## How EMDR neutralizes dissociative phenomena

Reintegrating Ego states

"The internal family system of ego states is recognized for having played purposeful, honorable roles during the earlier times of terror and chaos. With increased internal respect, symptom management skills, and stability, the processing of long-held traumatic memory material becomes possible. As this occurs, the client and ego state system can increasingly implement a more effective blueprint for living."

Forgash & Knipe, 2012



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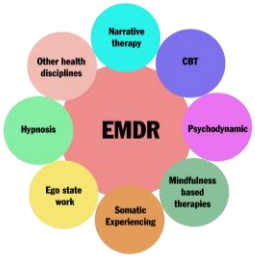
## But you need an integrated approach

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## Mobile apps based on EMDR

Healing trauma app series (HTAS)




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## Mobile apps based on EMDR (pilot RCT)

- 77 subjects PTSD and pain/MUS
- Tests: PCL-C, PHQ
- Average duration PTSD 10.4 years
- Recruited via online advertising/therapist referral
- Control group (n: 39) Treatment group (n: 38)
- Treatment: Use 1 or more apps daily for 3 month
- Control: TAU/nothing
- Testing: Post (T2), and 3-month (T3), and 6-month (t4) f/up
- Questioned about adverse events

Grant et al, 2025



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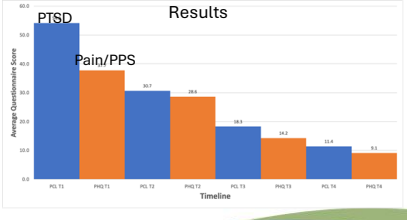
## Mobile apps based on EMDR (pilot RCT)



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## Evidence-base

**TABLE 2. Levels of Evidence Based on Sackett (1989) for the Different Target Areas**

| Level | Target Area |
|---|---|
| I | PTSD in children and adolescents |
| I | EMDR as an early intervention |
| II | Combat-related PTSD |
| II | Unipolar depression |
| II | Chronic pain |

PPS:

Matthijssen et al, 2020



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## Evidence-base


- Gardoki-Souto, I., Martín de la Torre, O., Hogg, B., Redolar-Ripoll, D., Martínez Sadurní, L., Fontana-McNally, M., ... & Moreno-Alcázar, A. (2024). The study protocol of a double-blind randomized controlled trial of EMDR and multifocal transcranial current stimulation (MtCS) as augmentation strategy in patients with fibromyalgia. *Trials*, *25*(1), 856.
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## Evidence-base

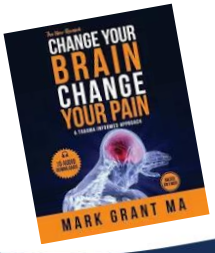
- Chronic low back pain (Gerhardt et al, 2016, Grant 2002)
- Phantom Limb pain (Schneider et al 2007)
- CRPS (Chronic Regional Pain Syndrome) (Hughes 2014)
- Endometriosis (Pruyn, 2024)
- IBS (Irritable Bowel Syndrome)
- Fibromyalgia (Konuk et al 2018)
- CFS (Royle, 2008)
- Headaches (Marcus 2008)
- Tinnitus
- FND (Cope, 2018)
- MS (Multiple Sclerosis) & PTSD (Carletto et al, 2016)

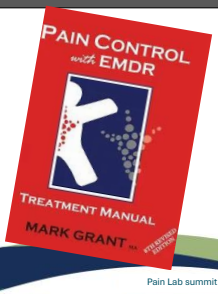


## Summary

1. Growing research base
2. Numerous variations from standard trauma protocol
3. Flexible approach to targeting
4. EMD vs EMDR
5. Integrated approach essential (> complex)
6. Recommend training in hypnosis

## Additional training/resources



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## Additional training/resources

EMDR training:
https://emdrassociation.org.uk/

EMDR treatment of chronic pain (with Hypnosis)
www.overcomingpain.com

ISSTD
https://www.isst-d.org/

American Society of Clinical Hypnosis (ASCH)
https://asch.net/



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