EMDR in the Treatment of Depression – the EMDR DeprEnd protocol

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changing lives

EMDRIA Conference 4.10.2020

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Content

- Some updates on the current view on depression
- The use of EMDR in depression – an overview of experiences & studies
- The EMDR-DeprEnd protocol in clinical practice

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Depressive Disorders

The most common mental disorder -
worldwide 264 million suffer from depression

17,3 Mio in the US (7,1%) are depressed,
in the age group 18-25 the percentage is 13,3%

47.000 anual suicides in the US (2017)

Many good treatments but
~ 15-20% of patients become chronic
~ 50% relapse after 2 years

Many risk factors for depression and
a conection with genes and life events

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The Genetic Track

Caspi-Study (2003)

Dunedin-Kohortenstudy

Serotonin-Polymorphism („s“ + „L“)

„L“ – long Allel, „s“ – short (N=435, 146)

In „L“ Depression was 10-15%

In „s“ with 3 or 4 Events → 25-30%

Caspi et al. (2003), Science, 301:386-389

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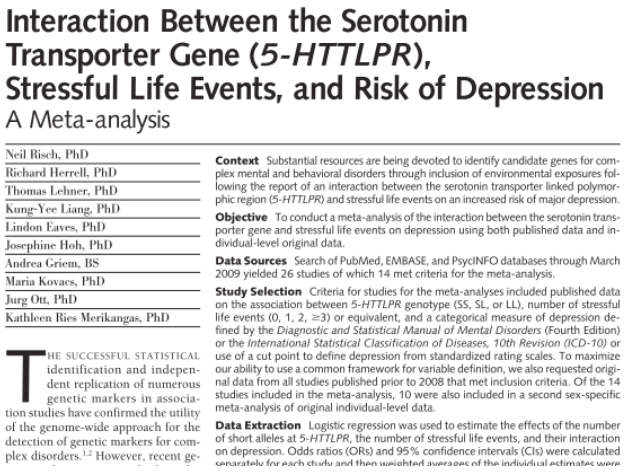
The genetic Track



Interaction Between the Serotonin Transporter Gene (*5-HTTLPR*), Stressful Life Events, and Risk of Depression
A Meta-analysis

Neil Risch, PhD
Richard Herrell, PhD
Thomas Lehner, PhD
Kung-Yee Liang, PhD
Lindon Eaves, PhD
Josephine Hoh, PhD
Andrea Griem, BS
Maria Kovacs, PhD
Jurg Ott, PhD
Kathleen Ries Merikangas, PhD

Context Substantial resources are being devoted to identify candidate genes for complex mental and behavioral disorders through inclusion of environmental exposures following the report of an interaction between the serotonin transporter linked polymorphic region (*5-HTTLPR*) and stressful life events on an increased risk of major depression.

Objective To conduct a meta-analysis of the interaction between the serotonin transporter gene and stressful life events on depression using both published data and individual-level original data.

Data Sources Search of PubMed, EMBASE, and PsycINFO databases through March 2009 yielded 26 studies of which 14 met criteria for the meta-analysis.

Study Selection Criteria for studies for the meta-analyses included published data on the association between *5-HTTLPR* genotype (SS, SL, or LL), number of stressful life events (0, 1, 2, ≥3) or equivalent, and a categorical measure of depression defined by the *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition) or the *International Statistical Classification of Diseases, 10th Revision (ICD-10)* or use of a cut point to define depression from standardized rating scales. To maximize our ability to use a common framework for variable definition, we also requested original data from all studies published prior to 2008 that met inclusion criteria. Of the 14 studies included in the meta-analysis, 10 were also included in a second sex-specific meta-analysis of original individual-level data.

Data Extraction Logistic regression was used to estimate the effects of the number of short alleles at *5-HTTLPR*, the number of stressful life events, and their interaction on depression. Odds ratios (ORs) and 95% confidence intervals (CIs) were calculated separately for each study and then weighted averages of the individual estimates were

THE SUCCESSFUL STATISTICAL identification and independent replication of numerous genetic markers in association studies have confirmed the utility of the genome-wide approach for the detection of genetic markers for complex disorders.[1,2] However, recent ge-

JAMA 2009

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The genetic Track

Metaanalysis of 26 studies on

- Serotonin transporter gene variants
- Negative life events
- Risk for depression

14 250 participants (1 769 depressed)

No risk for depression related to gene or interaction life event/gene

Risk increases with number of **events**

Risch et al. (2009), JAMA, 2462-2471

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The End of the Candidate Genes 2019

No Support for Historical Candidate Gene or Candidate Gene-by-Interaction Hypotheses for Major Depression Across Multiple Large Samples

Richard Border, M.A., Emma C. Johnson, Ph.D., Luke M. Evans, Ph.D., Andrew Smolen, Ph.D., Noah Berley, Patrick F. Sullivan, M.D., Matthew C. Keller, Ph.D.

Objective: Interest in candidate gene and candidate gene-by-environment interaction hypotheses regarding major depressive disorder remains strong despite controversy surrounding the validity of previous findings. In response to this controversy, the present investigation empirically identified 18 candidate genes for depression that have been studied 10 or more times and examined evidence for their relevance to depression phenotypes.

Methods: Utilizing data from large population-based and case-control samples (Ns ranging from 62,138 to 443,264 across subsamples), the authors conducted a series of preregistered analyses examining candidate gene polymorphism main effects, polymorphism-by-environment interactions, and gene-level effects across a number of operational definitions of depression (e.g., lifetime diagnosis, current severity, episode recurrence) and environmental moderators (e.g., sexual or physical abuse during childhood, socioeconomic adversity).

Results: No clear evidence was found for any candidate gene polymorphism associations with depression phenotypes or any polymorphism-by-environment moderator effects. As a set, depression candidate genes were no more associated with depression phenotypes than noncandidate genes. The authors demonstrate that phenotypic measurement error is unlikely to account for these null findings.

Conclusions: The study results do not support previous depression candidate gene findings, in which large genetic effects are frequently reported in samples orders of magnitude smaller than those examined here. Instead, the results suggest that early hypotheses about depression candidate genes were incorrect and that the large number of associations reported in the depression candidate gene literature are likely to be false positives.

Am J Psychiatry 2019; 176:376–387; doi: 10.1176/appi.ajp.2018.18070881

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Life events and Trauma

Exposure to trauma and household dysfunction accout for about **50% major depressions and suicides** (Fellitti, 2001, 2004)

Depression is the most common documented outcome of childhood sexual abuse in adults (Putnam 2003)

Teicher (2009), J Clinical Psychiatry; 70(5): 684-91

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Martin Teicher

Harvard Medical School

Department of Psychiatry

McLean Hospital

Developmental Biopsychiatry Program

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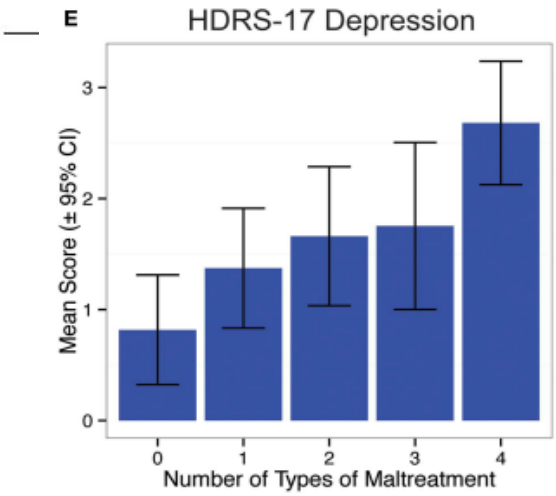
Memories acummulate !



Teicher (2009), J Clinical Psychiatry

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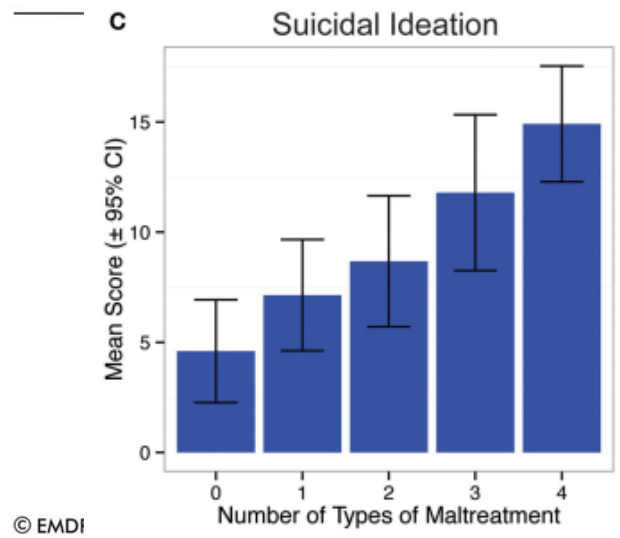
Cummulative Risik in ACE-Study



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There is a Dosis relationship between stressful events and depression

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Which life events?

Life Event Dimensions of Loss, Humiliation, Entrapment, and Danger in the Prediction of Onsets of Major Depression and Generalized Anxiety

Kenneth S. Kendler, MD; John M. Hettema, MD, PhD; Frank Butera, MA; Charles O. Gardner, PhD; Carol A. Prescott, PhD

Background: Although substantial evidence suggests that stressful life events predispose to the onset of episodes of depression and anxiety, the essential features of these events that are depressogenic and anxiogenic remain uncertain.

Methods: High contextual threat stressful life events, assessed in 98 592 person-months from 7322 male and female adult twins ascertained from a population-based registry, were blindly rated on the dimensions of humiliation, entrapment, loss, and danger and their categories. Onsets of pure major depression (MD), pure generalized anxiety syndrome (GAS) (defined as generalized anxiety disorder with a 2-week minimum duration), and mixed MD-GAS episodes were examined using logistic regression.

Results: Onsets of pure MD and mixed MD-GAS were predicted by higher ratings of loss and humiliation. Onsets of pure GAS were predicted by higher ratings of loss and danger. High ratings of entrapment predicted only onsets of mixed episodes. The loss categories of death and respondent-initiated separation predicted pure MD but not pure GAS episodes. Events with a combination of humiliation (especially other-initiated separation) and loss were more depressogenic than pure loss events, including death. No sex differences were seen in the prediction of episodes of illness by event categories.

Conclusions: In addition to loss, humiliating events that directly devalue an individual in a core role were strongly linked to risk for depressive episodes. Event dimensions and categories that predispose to pure MD vs pure GAS episodes can be distinguished with moderate specificity. The event dimensions that preceded mixed MD-GAS episodes were largely the sum of those that preceded pure MD and pure GAS episodes.

Arch Gen Psychiatry. 2003;60:789-796

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Life events and depression

Close relationship between depressive episodes and

Losses, Separations und

Humiliations (p<.001)

Events with **danger for life** were only related to anxiety disorders (GAD)

Depression is a stress related disease

Kendler et al. (2003), Arch Gen Psychiatry, 60; 789-796

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Summary

Depression is
to a large extend based on

Pathogenic Memories
(traumatic and non-traumatic)

Centonze et al. 2005 Mol. Neurobiology,
Hase et al. 2017 Frontiers of Psychology

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Summary

Depression is
to a large extend
a Stress-
and Traumabased Disorder

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EMDR for Depressive Patients

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EMDR in the Treatment of Depression

First published cases:

- F. Shapiro (1997), Patient „Mia" lost 12 year old child, MDD and suicide attempt
- Philip Manfield, Jim Knipe, Greg Smith, Robin Shapiro and others

Case series:

- 2 cases of adolescents (Bae et al. 2009)

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EMDR in Adolescent Depression

- Patient 14 year old girl
- Two years ago: father new business, infidelity + divorce. Had to leave school
- Lost 10kg in 3 months, suicidale ideas.
  DSM-IV: MDD
- 6 sessions EMDR. Focus on lost friends, fathers affair, axiieties and future
- Follow up 3 moths later

Bae, Kim & Park (2008), Psychiatric Invest, 60-65

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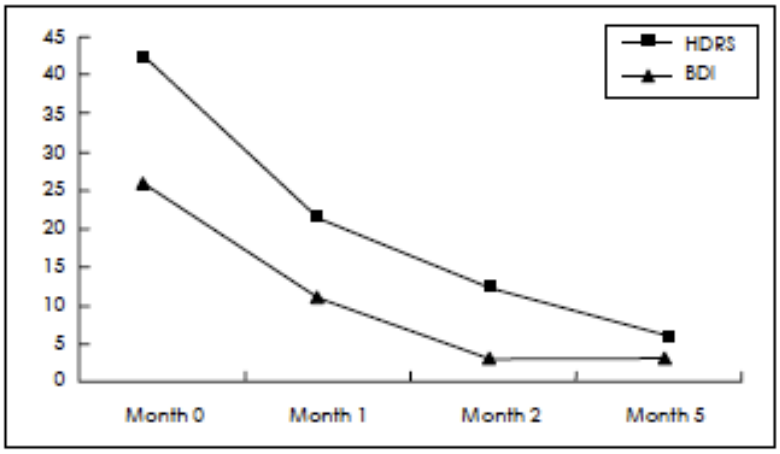
EMDR in Adolescent Depression



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EMDR in Recurrent Depressive Disorder (F 33)

Retrospektive Study (N=10 Patients)

Age 52, 9 women, 1 man

Five 33.2, two double depressions (MD+34.1)

3 chronic depressions (>2 years)

Previous relapses ~ 6,4 (3-13)

Outpatient treatment CBT or PD

Treatment 60 sessions including 7,4 EMDR

Follow up 3,7 Jahren (1-6)

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EMDR in Recurrent Depressive Disorder (F 33)

At follow up:

9 had a complete remission (7 at end of therapy)

7 patients had no more medication

4-5 relapses had to be expected

Only 1 patient relapsed

Trigger: partner got cancer

3 others had significant stressors but no relapse (death husband, myocardial infarct u.a.)

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EDEN Pilot 1 - Krefeld

Prospektive controlled study with outpatients of a CBT Training Institute

Two groups compared (N=42)

- CBT (47 sessions) + medication = TAU
- vs. TAU (45) incl. ca. 6,9 sessions EMDR

Results:

- BDI better in EMDR group (p=.029)
- Complete Remissions EMDR group >80% (vs. Tau 38%, p<.001)

Hofmann et al. 2014, JEMDR

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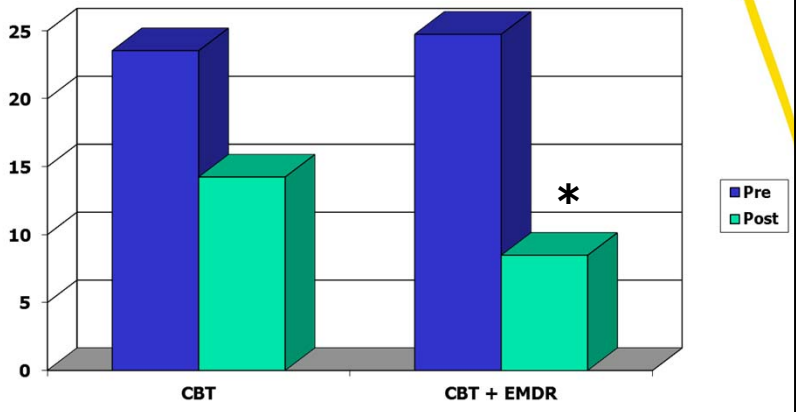
Krefeld Study Results BDI II (N=42)



* = .029

Hofmann et al. 2014, JEMDR

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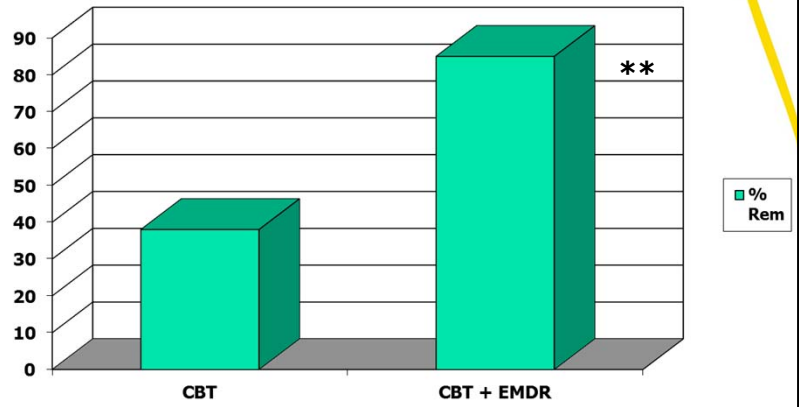
Krefeld Study: Complete Remissions (N=42)



** = .001

Hofmann et al. 2014, JEMDR

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EDEN RCT Study

EMDR vs CBT

82 patients with recurrent depressive disorder

16 sessions of EMDR vs. CBT

Baseline, + 2 weeks, after every 4 EMDR sessions, post treatment, follow-up after 6 months

EMDR and CBT at least equally effective

Better reduction of BDI for the EMDR group at post treatment p>.05

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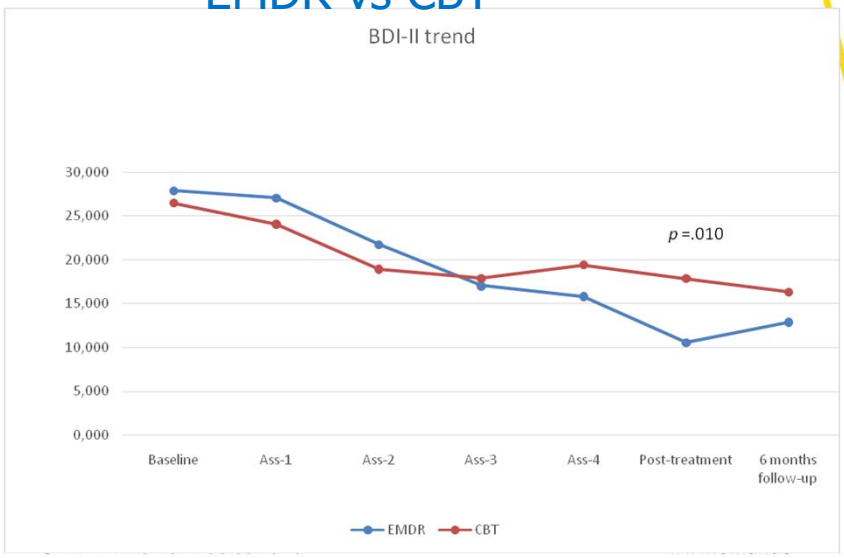
EDEN RCT Study

EMDR vs CBT



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Treatment Resistant Depression

(RCT Minelli et al. 2019)

- RCT with 22 patients with TRD (12 EMDR, 10 TF-CBT)
- Earlier treatments: at least two cycles medication, not-traumaspecific psychotherapy
- At least 3 stressfull memories
- Therapy: 8 weeks with 3 sessions CBT or EMDR each week (24 sessions)
- Follow up after 4 and 12 weeks
- Results stable only in EMDR group

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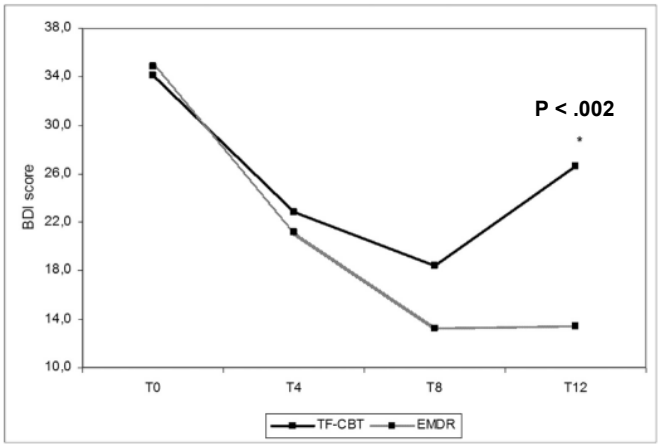
TR - Depression

Depressive Symptoms (BDI)



Minelli et al. 2019,
Psychiatry Research 273: 567-574

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8 RCTs of EMDR and Depression – similar results

TABLE 1. Characteristics of Seven Randomized Controlled Clinical Trials

Author (Year)	N	Treatments/WL	Number of Sessions	Findings
Hogan (2001)	30	EMDR versus CBT	4	EMDR = CBT
Lei and Zhen-Ying (2007)	64	Sertraline + EMDR versus Sertraline	6	Sertraline + EMDR = Sertraline
Behnam Moghadam (2015)	60	EMDR versus TAU (no intervention)	3 (45–90 minutes)	EMDR > TAU
Mauna Gaubar (2016)	26	EMDR versus WL	6 to 8 (1 hour)	EMDR > WL
Ostacoli et al. (2018)	82	EMDR versus CBT	15 ± 3	Posttreatment: EMDR > CBT; Follow-up: EMDR = CBT
Hase et al. (2018)	30	EMDR + TAU versus TAU	1 or 2 EMDR sessions/week. Minimum 4 sessions, maximum 12.	EMDR + TAU > TAU
Minelli et al. (2019)	22	EMDR versus TF-CBT	24 (three 1-hour sessions/week, for 8 weeks)	Posttreatment: EMDR = TF-CBT; Follow-up: EMDR > TF-CBT

Note. CBT = cognitive behavioral therapy; TF-CBT = trauma-focused cognitive behavioral therapy; WL = waiting list; TAU = treatment as usual.
> indicates significantly better than.

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How to do EMDR DeprEnd practically?

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EMDR DeprEnd Protocol
Step 1-5

1. Get an overview (AIP-glasses)
2. Check need for stabilisation
3. Focus and process:
   Episode triggers
4. Belief systems
5. Depression related states
   (mostly in this sequence!)

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EMDR DeprEnd©
Step 1

Get an overview

The AIP-Glasses:
which memory networks
are involved?

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EMDR DeprEnd
Step 1

Get an overview:

- „Symptom-Event Map“
- List all depressive episodes
- Look for trigger events of episodes
- Full or partial remissions ?
- Comorbid complex PTSD or dissociative disorder ?

Hofmann, Hase et al. (2009)

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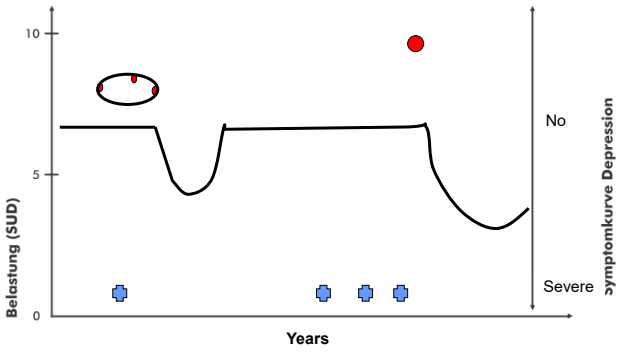
EMDR DeprEnd Symptom-Event Map



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Step 3: Processing Episoder Triggers

- Episode triggers can be singular or multiple
- Can also be connected to former experiences and episodes (important: overview Phase 1!)
- Often apparent in history taking - Phase 1 (time connection, high SUDs, intrusive)
- Work first with trigger of last episode (or with the strongest)
- After working with an episode trigger you often get an obvious improvement of depression (BDI)
- Episode trigger work needs the majority of all EMDR processing sessions

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Step 3: Episode Triggers Case Example

- CEO, 59 J alt, female
- Comes to therapy because her doctor can‘t find any somatic cause for her strong back pain
- Suffers from depressive mood, poor energy, poor sleep
- „That‘s not me!“
- No trauma in her history
- What happened before she got depressive?

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Step 3: Episode Triggers Case Example

- She was CEO of a Health Company
- They fusioned with another Company
- The way of treating staff changed
- She herself was to be replaced by a young, dynamic CEO
- She was not invited to an important meeting concerning the future of the business
- Episode trigger are the events before her dismissal

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Step 3: Episode Triggers Case Example

- First focus was a phone call where she realised that she was not invited for the meeting
- Next two other experiences in the company takeover
- Trigger: the Administration building of the company
- Future protection: the topping out ceremony of the new building that she had initiated
- NK: I am a loser, feelings of guilt, SUD = 7 – 8
- PK: I am successful
- The stress dissolves completely during EMDR

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Step 3: Episode Triggers Case Example

- Result: the patient finds back to her strengths and quality of life
- She can go back to work
- The patient decides to leave management and start something completely new
- She is full of energy and can sleep again
- Back pain is completely gone
- Full remission of depressive symptoms

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EMDR DeprEnd©
Step 2

Find out about need for stabilization (or not)

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EMDR DeprEnd©
Step 2

- Find out about need for stabilisiation
- If patient is stable
- Standardprotocol
  (without long stabilisation)
- With negative tests: (usually cPTSD or DD)
  Inverteted standardprotocol (UStP)
- Stabilizing interventions (like RDI)

Hofmann, Hase et al. (2009)

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EMDR DeprEnd
Step 3

Processing
Episode Triggers

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EMDR DeprEnd
Step 3

- **Reprocessing episode triggers**
- Stressful life event preceding a depressive episode (1-2 months)
- Can usually be named by the patient
- Mostly not criterium A (loss, shaming, humiliation, material loss)
- Typically high SUDs, may be intrusive
- Can be connected to old material

Hofmann, Hase et al. (2009)

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EMDR DeprEnd Step 4

Processing Negative Belief Systems

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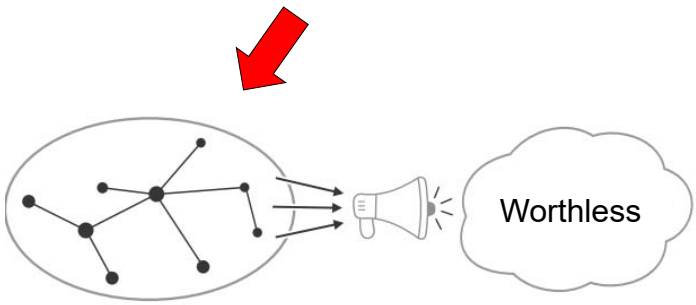
Belief Systems in AIP View



Memory Networks Cognitive Intrusions

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EMDR DeprEnd©
Step 4

Working with belief systems

- How to recognise belief systems:
- Intrusive cognitions like: „I am worthless“
  „I will never be successful“. (with high SUDs)
- Appear as negative cognitions in EMDR phase 3

Look for memory network behind the belief !

- **Cognitive** search: Proof memories
- **Affective** search: Touchstone memories

Hofmann, Hase et al. (2009)

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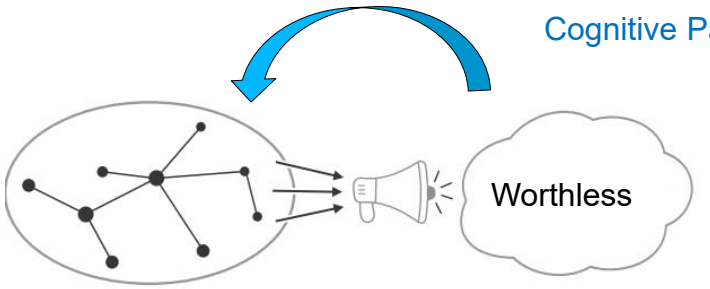
Treating Belief Systems



Memory Networks Cognitive Intrusions

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EMDR DeprEnd©
Step 4

- If a negative belief system is diagnosed:
- Look for **proof memories** first
  „ what in your life proves that you are worthless e.g.?"
- Make a list (de Jongh, 2010)
- Prioritize
- Do not yet process it !

Hofmann, Hase et al. (2009)

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EMDR DeprEnd©
Step 4

- Use a **present trigger** for the negative belief system for a float back to find the **Touchstone memory** (Shapiro, 2001)
- Sequence of processing:
- Go for the higher SUDs (usually touchstone m.)
- Then process **Proof memories**
- Then triggers and future projection
- Important role in relapse prevention
- Often longer installation phases !

Hofmann, Hase et al. (2009)

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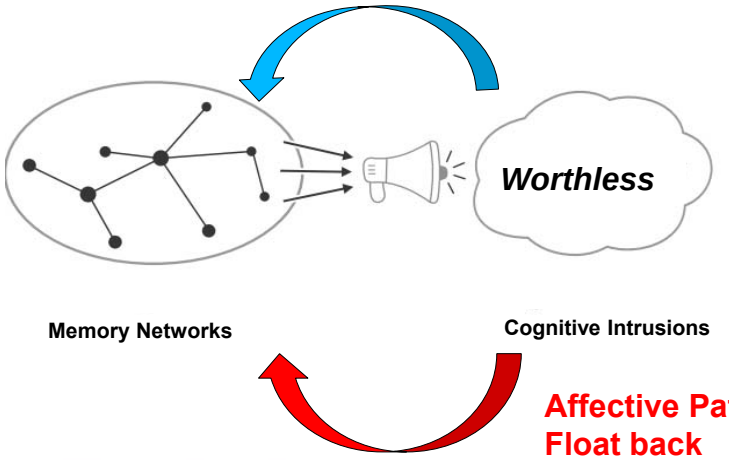
Treating Belief Systems



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Step 4: Belief System Case example

- Patient, 45 years old clerk, married, one child (13)
- Depressive episode after death of her mother
- Disease-related anxieties and somatisation
- First step: Working with deaths of mother (episode trigger). That goes very well
- Residual symptoms of sensitivity, irritability had the feeling: „I'm stupid", „I'm not okay", „I am unimportant"

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Step 4: Belief System Case example

- **Proof memories**:
  events of shaming in school
- NK: I'm stupid,
- Feeling: shame; SUD = 10 !
- The memory is processed with impressive intensity
- At the end of the process: SUD is 0
- PK is: „I am okay as I am", the body scan is free

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Step 4: Belief System Case example

- The belief „ I am unimportant" is still charged
- Looking for a **Touchstone memory** with float back
- Present trigger is a situation with the husband
- Touchstone memory behind this situation where she run away from home age 5 and felt alone and unimportant (parents had a business and little time)
- NK: I'm unimportant PK: I'm important,
  VoC = 3, SUD = 10
- At the end of the session SUD = 0, VoC = 7

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Step 4: Belief System Case example

- Treatment result:
- Full remission of depression
- The patient feels being back in life again
- No somatic problems
- The patient experiences herself as more confident

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EMDR DeprEnd© Step 5

Processing Depressive and Suicidal States

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What is a State?

- A memory network that remembers the „state" of being depressed or suicidal
- Often has no images or spontane cognitions
- Felt mainly in the **body**, behavior related
- Symbolisation often helps (visualisation, verbalisation)
- Fits with concepts of Horowitz (1979) and AIP-model
- Different from spontaneous „Ego-State" with more consciousness involved (Federn 1952)

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Step 5: Depressive States Case example

53 j. man with second depressive episode

Current episode started with humiliating talk with his boss

This episode trigger is processed well with EMDR

Residual symptom: He suffers from morning low, especially on mondays

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Step 5: Depressive States
Case example

Asking for the background of the morning low the patient remembers that the talk with the boss happened on monday morning

Focusing on the memory ‚morning low'

Image: my depressive face in the mirror

NK: I have no control

SUD 8, anger and fear –> SUD 0

After EMDR: the morning low disappears

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EMDR DeprEnd©
Step 5

Suicidal States

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Step 5: Suicidal State
Case example

- 55 year old patient with severe depression
- First episode with 13 years, since then 13 other episodes, mostly in spring
- Episodes and after birth of first child
- Depressive episodes reappear after menopause
- Strong suicidal impulses, several „visits" on the railway track (without suicide attempt)
- Medication and psychotherapy since many years
- 10 sessions psychotherapy (4 EMDR processing)

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Step 5: Suicidal State
Case example

10 sessions psychotherapy

5 sessions history taking preparation and RDI

1. EMDR session: stressful image of last depressive episode (SUD 6,5 -> 0)

2. and 3. session: two other stressful memories, connected to episodes, processed (relief)

EMDR work with suicidal impulse
Image: railway track „urge to kill myself" (SUD 8)
„An atmosphere of desparation and hopelessnesst"

During EMDR a memory apears (5/6 Lj): Grandmother tells her about the war – (lost husband, the son – father of patient – came severely wounded home)

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Step 5: Suicidal State
Case example

The SUD comes down to 0 in session that ends with am image of safety

Last session for closure

Patient in full remission at therapy end

Follow up **five years later**:
Two shorter depressive episodes triggered by the cancer diagnosis of her husband (citalopram 10mg for 4 months)

Present full remission, BDI II: 2

In situations of former suicidality
–> image of safety appears

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Case example
of a complex case of depression with trauma history (without PTSD)

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A Severe Case of recurrent Depression

52 year old woman living from welfare

Panic attacks - many anxieties

Major depression, more than 10 prior episodes (F33.2)

Relationship problems and present borderline disorder (F60.31)

Past alcohol abuse and eating disorder

3 suicide attempts, 5 hospital stays

Intrusions of abuse age 3-10, but no PTSD

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A Severe Case of recurrent Depression

80 sessions of CBT plus (in midtherapy)

Better, but no change in intrusions and shame

5 sessions of RDI (inverted Protocol)

8 sessions of (standard) EMDR

Broken relationship that triggered last episode (SUD: 6 down to 1) NC: „I am a failure"

Separation of her husband (SUD: 8 down to 0 in 2 sessions) PC: „it is over" VoC: 7

„Representative memory" of abuse by father (SUD 10) went down to 0 in two sessions

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A Severe Case of recurrent Depression

8 sessions of (standard) EMDR

- PC after processing the abuse memory „I am worthy of being treated lovingly" VoC: 7
- Focussing on representative „memory" of childhood neglect
- SUD of 9 came down to 0 in two sessions
- PC: „I am loved" (linked to warm body feeling)
- Since then no more intrusions and shame

At therapy end: depression significantly improved and no more borderline diagnosis

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A Severe Case of recurrent Depression

Follow up **six years later**:

No depression relapse, full remission

No more medication

Far better in relationships

Founded own buisness (with employees)

Recent stressor: appartment burnt down – she managed it without decompensation

BDI: 2

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Take Home Message

- Depression is to a large extend
  a stress- and traumabased disorder
- Current treatment is stuck with
  many relapsing and chronic depressive patients
- EMDR therapy for depression is at least as effective as CBT treatment (equivalence)
- Some results show that EMDR can lead to more complete remissions and fewer relapses

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