Treatment of fears and phobias with EMDR

Prof. dr. Ad de Jongh
University of Amsterdam

EMDR in The Netherlands

- Currently, 32 research projects are being conducted (EMDR with: psychosis, panic disorder, OCD, addiction, individuals with intellectual disabilities etc.)
- Every year about 600 clinicians are trained in EMDR
- Current membership rate: about 2850
- If a guideline treatment (CBT/EMDR) is applied in our country, then EMDR is applied most frequently:
  A recent survey among 3277 Dutch clinical psychologists showed that 93.6% offers EMDR, and 6.4% exposure in case of PTSD

Overview of the day

- Understanding fear and phobias
- Case conceptualization: selecting appropriate targets for treatment
- Use of the fear and phobia protocol
- The use of ‘Flashforwards’
- Making treatments more effective: adding gradual exposure in vivo and behavioral experiments to EMDR
What is fear?

ANXIETY DISORDERS IN DSM-5

- Panic disorder
- Generalized anxiety disorder
- Obsessive-compulsive disorder
- Post traumatic stress disorder (PTSD)
- Phobias
  - Agoraphobia
  - Social anxiety disorder (social phobia)
  - Specific phobia

PHOBIAS

A marked and disproportionate unreasonable and excessive fear of a specific object or a particular situation, i.e.:
- one where you could be negatively judged: social phobia/ social anxiety disorder
- one where you may not escape from when getting a panic attack: agoraphobia
- Other situations (e.g., height, flying, driving, dental treatment): specific phobia
SPECIFIC PHOBIAS subtypes

- Animal
- Natural Environment (e.g., height or thunder phobia)
- Blood-Injection-Injury (e.g., dental phobia)
- Situational Type (e.g., flight phobia or phobia of enclosed spaces)
- Other Type (e.g., choking, vomiting)

**TABLE 3.** Factor structure of severity of fears determined by Promax rotation

<table>
<thead>
<tr>
<th>Fear related</th>
<th>Situational</th>
<th>Animal</th>
<th>Blood-injection</th>
<th>Injury</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiders</td>
<td>0.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Darkness</td>
<td>0.59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snakes</td>
<td>0.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosed spaces</td>
<td>0.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thunder</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injections</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental treatment</td>
<td>0.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical injuries</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flying</td>
<td></td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heights</td>
<td></td>
<td></td>
<td></td>
<td>0.61</td>
<td></td>
</tr>
</tbody>
</table>

Specific phobia: criteria

1. Marked and disproportionate fear that is consistently triggered by specific objects or situations
2. Exposure to the phobic stimulus almost invariably provokes an immediate fear response
3. The person recognizes that the fear is excessive and unreasonable
4. The phobic situation is avoided or endured with intense anxiety or distress
Diagnostic criteria of specific phobia

5. The avoidance, anxious anticipation, or distress in the feared situations *interferes significantly* with the person's normal routine, occupational functioning, social activities or relationships, or there is a marked distress about having the phobia.

6. The symptoms must persist for at least six months.

---

Prevalence of phobia subtypes

<table>
<thead>
<tr>
<th>Fear of</th>
<th>N</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snakes</td>
<td>52</td>
<td>13.6</td>
</tr>
<tr>
<td>Heights</td>
<td>46</td>
<td>11.9</td>
</tr>
<tr>
<td>Insects</td>
<td>44</td>
<td>11.3</td>
</tr>
<tr>
<td>Enclosed places</td>
<td>34</td>
<td>8.9</td>
</tr>
<tr>
<td>Flying</td>
<td>33</td>
<td>8.5</td>
</tr>
<tr>
<td>Sharks</td>
<td>28</td>
<td>7.4</td>
</tr>
<tr>
<td>Blood</td>
<td>22</td>
<td>5.7</td>
</tr>
<tr>
<td>Medical treatment</td>
<td>19</td>
<td>5.1</td>
</tr>
<tr>
<td>Lightning</td>
<td>12</td>
<td>3.1</td>
</tr>
<tr>
<td>Public speaking</td>
<td>10</td>
<td>2.5</td>
</tr>
</tbody>
</table>

---

Prevalence and severity of fears

Fear of snakes is the most prevalent fear (35%), followed by heights (31%), physical injuries (27%), and dental treatment (24%).
The dynamic of fears and phobias

STIMULI
(fear provoking aspects)

EXPERIENCES

BIOLOGY
A phobia of gagging

- Some individuals worry that they will gag or vomit when eating certain foods. They may stop brushing their teeth and constantly have sweets in their mouth as it helps them to prevent gagging. Many limit their diet to soft foods or foods they have prepared. Some people with this type of fear refuse to eat in public or even when other people are present. This fear can sometimes lead to the inability to swallow.

Two types of fear
How does fear begin?

An example of a television series makes it conceivable how a disturbing event can lead to horrific images, and possibly an avoidance response.

Extremely Scary Corpse in Elevator Prank in Brazil
Neurobiological model

HPA-axis also involved in the storage of memories of emotional events

Mechanisms of emotional arousal and lasting declarative memory

Larry Cahill and James L. McGaugh

Neuroscience is witnessing growing interest in understanding brain mechanisms of memory formation for emotionally salient events, a development closely related to renewed interest in the concept of memory consolidation. Extensive research in animals implicates stress hormones and the amygdala in crucial roles in the process of memory consolidation for emotional events. Considerable evidence suggests that the amygdala is not a site of long-term explicit or declarative memory storage, but rather serves as a temporary storage mechanism for other brain regions, such as the hippocampus, striatum, and cingulate. Human subject studies confirm the predictions of animal work that the amygdala is involved in the formation of enhanced declarative memory for emotionally meaningful events.

Amygdala involved in the storage of memories of emotional events

The higher the level of arousal, the more the emotional intensity of the memory
Conditioning theory

CLASSICAL CONDITIONING

TOWER
DENTAL DRILL
TRAFFIC
PANIC ATTACK
PAIN
ACCIDENT

CS (light) → No response or irrelevant response
US (food) → UR (salivation)
CS (light) → US (food) → UR (salivation)
CS (light) → CR (salivation)

ANXIETY

CS
US
CR

RESPONSES
emotional
cognitive
physical
behavioral

CONSEQUENCES
psycho-social (QoL)
The three pathways to fear acquisition

- Traumatic (conditioning) experiences and fantasy (e.g., based upon near-accident)
- Transmission of (threatening) information
- Genetic factors

Observational learning

Observational learning involves the acquisition of observable behaviors and other cognitive patterns by modeling the behaviors of others who share such behavior.
Different fears have different dynamics

Blood-injury-injection phobia

- Reported prevalence rates 3.5% - 4.9% (F > M)
- According to the text of the DSM-IV-TR (p. 446), B-I-I phobia is characterized by a strong vasovagal response (‘biphasic response pattern’)
- This response is supposed to consist of an initial acceleration in heart rate and blood pressure, followed by a heart rate deceleration and blood pressure drop leading to an increased likelihood of vasovagal fainting
- It is assumed that about 75% of patients afflicted with B-I-I phobia have a history of fainting in phobia-relevant situations
Normal response to an anxiety provoking object or situation

Physiological response to exposure to a B-I-I-related object or situation

The typical B-I-I phobic response consists of an initial acceleration in heart rate and blood pressure, followed by a heart rate deceleration and blood pressure drop leading to an increased likelihood of vasovagal fainting.

Who has ever seen a client who had as his major complaint that he would faint when exposed to injuries, blood or injections?

For example, a man who is afraid of fainting when he is confronted with his wife's delivery of their child.
If you see a patient with a faint response or feelings of dizziness or nauseousness with (potential) injuries.....

..who of you teaches him/her relaxation techniques to help overcome his/her fear of fainting?

**Applied tension**

Instruct the patient to tense all of his/her muscles in his body, including those in the arms, torso, legs and face, to induce an increase of blood pressure.
Applied tension

- Ask the patient to take a seat in a comfortable chair
- Instruct the patient to tense all of his/her muscles in his body, including those in the arms, torso, legs, and face
- The tension should be held for 10-15 seconds until there is a “rush” or a “warm feeling” in the head

Applied tension (2)

- Ask the patient to release the tension and let his body return to its normal state for 20-30 seconds
- Repeat this tension-relaxation cycle 5 times for a given practice session
- Demonstrate for the patient the effect of the tension exercises on blood pressure using the proper equipment

Applied tension (3)

- Encourage the patient to practice the exercise 5 different times throughout the day (with each practice including 5 tension-relaxation cycles)
- Combine the tension exercises with in vivo exposure during exposure to blood-or injection-related objects or situations
Young woman who, since her childhood, often faints. This happens when seeing wounds, or is confronted with injections, blood, or even upon awakening from a dream about an accident. Recently she fainted while thinking about the Ebola disease. She then became very nauseous and she had to throw up. Her most severe faint response is when she imagines that her bladder will explode when she needs to pee.

Six months later

“Your treatment has helped me so much. I am still amazed how simple it really is. I didn’t pass out yet, despite that I had to undergo several blood draws, injections and stuff. I am still so immensely grateful for what you did!!!”

Thus

• The propensity to faint needs to be treated with applied tension

• Fear of fainting can best be treated with in vivo exposure or EMDR

• But only while all muscles are tensed!
Height phobia

Height phobia may be an excellent example of gene x environment interaction.

One in three has an inborn susceptibility of an apprehension of losing control of balance.

Down on heights? One in three has visual height intolerance

Down Report - Eva Goll - Thomas Brandt

Abstract: The disturbing phenomenon of visual height intolerance (VHI) occurs when a visual stimulus causes apprehensions of losing control of balance and falling from some height. Epidemiological data of this condition in the general population are lacking. A cross-sectional epidemiological study of 3,317 individuals representing the German population. Lifetime prevalence of 38.1% (male: 39.2%; female: 37.1%). A higher prevalence is associated independently with a family history of VHI, anxiety disorders, migraine, or motion sickness. Excepted values with time in more than 50% of affected individuals. The most frequent reaction to VHI is to avoid the triggering stimulus (85%). 13% of susceptible individuals consult a doctor. Most often a general practitioner, ophthalmologist, ENT doctor, or psychiatrist. In brief, visual height intolerance affects one third of the general population, considerably restricting the majority of these individuals in their daily activities. The data show that the two terms do not indicate a categorical distinction but rather a continuum from slight forms of visual height intolerance to the specific phobia of fear of heights.
Many people experience an inborn susceptibility for exposure to a height-related stimulus.

Fig. 2 Symptoms of visual height intolerance (%) in 1,003 susceptible individuals

Height phobia gets conditioned quiet easily!

Fig. 3 Visual height stimuli (%) eliciting the first attack in 1,003 susceptible individuals

The traumatic background of phobias
### Phobias and their traumatic origin (I)

<table>
<thead>
<tr>
<th>PHOBIA TYPE</th>
<th>STUDY</th>
<th>DIRECT CONDITIONING RATE (PERCENT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snakes</td>
<td>Obradovic &amp; Krisch, 1984</td>
<td>0%</td>
</tr>
<tr>
<td>Water phobia</td>
<td>Mendes &amp; Costa, 1993</td>
<td>92%</td>
</tr>
<tr>
<td>Spider</td>
<td>Graham &amp; Coidina, 1981</td>
<td>0.8%</td>
</tr>
<tr>
<td>Flying</td>
<td>Khanna et al., 1989</td>
<td>8%</td>
</tr>
<tr>
<td>Thunderstorms</td>
<td>O'Sullivan &amp; McConnon, 1982</td>
<td>10%</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>Lipsky &amp; Young, 1979</td>
<td>7-13%</td>
</tr>
<tr>
<td>Heights</td>
<td>Mendes &amp; Costa, 1993 &amp; 1995</td>
<td>11-18%</td>
</tr>
</tbody>
</table>

### Phobias and their traumatic origin (II)

<table>
<thead>
<tr>
<th>PHOBIA TYPE</th>
<th>STUDY</th>
<th>DIRECT CONDITIONING RATE (PERCENT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dogs</td>
<td>Di Nardo et al., 1961</td>
<td>13-30%</td>
</tr>
<tr>
<td>Social phobia</td>
<td>Kelly et al., 1961</td>
<td>5%</td>
</tr>
<tr>
<td>Road - injury phobia</td>
<td>Steenbergen et al., 1989</td>
<td>2-3%</td>
</tr>
<tr>
<td>Driving</td>
<td>Thyen et al., 1999</td>
<td>30%</td>
</tr>
<tr>
<td>Public speaking</td>
<td>Hurst &amp; Cross, 1984</td>
<td>89%</td>
</tr>
<tr>
<td>Dental</td>
<td>Dr. Aron et al., 2003</td>
<td>55-60%</td>
</tr>
</tbody>
</table>

---

**Essential diagnostic elements**
A client has a fear of injections. What is the first question you should ask?

“What about injections do you fear (specifically)?”

The stimulus

CS

A client has a fear of injections. What is the second question you should ask?

What do you fear (what do you think might happen) when you are confronted with/exposed to .......... [an injection/certain aspect of injection]?
The catastrophe

US

“That I’ll faint”
or:
“That it will hurt terribly”
or:
“That the needle will break”
or:
“That I’ll become ill”

Believability

If........then........

80%

Stimulus/CS
Catastrophe/US

Assessing the relation between CS and US: the likelihood of the feared consequence
‘Validity of Catastrophe’ (VOC)

“If you... [are on top of a bridge/receive an injection], on a scale from 1 (completely untrue) to 7 (completely true), how true does it feel that you will.....[fall and die/will faint]?”

Treatment of fears and phobias

Specific phobias can be treated in various ways

- In vivo exposure
- Behavioral experiments
- Virtual reality exposure therapy (VRET)
- Cognitive therapy (cognitive restructuring)
- A trauma-focussed approach (EMDR)
That EMDR is ‘treatment of first choice’ does not hold true for specific phobia…….

In vivo exposure: treatment of first choice

Psychological approaches in the treatment of specific phobias: A meta-analysis
Kim B. Wolzisky-Taylor, Jonathan D. Hnisz, Mark B. Pavao, Michael J. Taka

“The findings provide the first quantitative summary evidence supporting the superiority of exposure-based treatments over alternative treatment approaches for those presenting with specific phobia.”

In vivo exposure

Extinction is the reduction in conditioned fear generated by the repeated presentation of the CS without any paired US.
Exposure *in vivo*: worm phobia

1. The client is introduced to a worm at what the client considers a safe distance
2. When much of the anxiety had subsided, the client is asked to approach it
3. Next, the client touches the worm with:
   - a pencil
   - a finger
   - etc.
4. Finally, the client has the worm creeping on the bare fingers and hands
5. The client is encouraged in between the sessions to practice with approaching situations she would normally avoid

The natural course of the fear response when confronted with the phobic stimuli

A = What many clients expect: anxiety response becomes worse
B = Others believe that the anxiety response has a ‘ceiling’ (‘can’t become worse than panic’)
C = Anxiety response after flight from situation
D = Anxiety response during exposure

For specific phobias exposure therapy is ‘treatment of first choice’.

However.......
In adults 14 randomized controlled studies investigated the effectiveness of CBT for phobia subtypes. Exposure in vivo was compared with another active treatment in only 8 studies:
- Animal phobias (Bandura et al., 1969; Gilroy et al., 2000; Gødestam & Hokstad, 2002)
- Water phobia (Egan, 1981)
- Height phobia (Williams, Doomse, & Kleinfield, 1984)
- Flight phobia (Walder et al., 1987)
- Claustrophobia (Booth & Rachman, 1992; Öst et al., 2001)
- Long term follow-up (1 year): until 50% relapse

Thus

Empirical support for behavioral treatment of phobias is based on a limited range of monosymptomatic phobias. Support for the behavioral treatment of a wide range of other (trauma-related) phobic conditions is completely lacking. For example:
- Accident/driving phobia
- Dog phobia
- Choking phobia

There are certain types of phobias, for which in vivo exposure is quite difficult, for instance:
- Wasp phobia
- Flight phobia
- Jellyfish phobia
- Certain medical phobias
.. there are certain types of phobias for which exposure to the CS does not lead to extinction, but instead activates the fear network to such an extent that the client can't endure and/or exposure leads to a reactivation of a disturbing memory, thereby further strengthening the aversive memory trace.

EMDR as a treatment for fears and phobias

Treatment is quite easy when there is a clear beginning.

Even in cases for which treatment has been found to be difficult.
Case of choking phobia

- Client underwent jaw correction operation
- Jaws had to be wired together for 6 weeks
- During stay in intensive care unit, a tube which was used to drain fluids from her lungs was improperly inserted
- Client had to vomit and almost choked to dead
- Next night the person in next bed was suffocating and client witnessed how the resuscitation failed

Case of choking phobia

- Client developed a choking phobia and could not eat anymore (only fluids)
- Client suffered from a great weight loss
- Extremely scared of dental treatment
- Orthodontic treatment which required impressions to be made was impossible

Empirical support
Five controlled studies on specific phobia


Efficacy of a trauma-focused treatment approach for dental phobia: a randomized clinical trial


It has been hypothesized that treatment specifically focused on reprocessing of negative dental events might be effective for the alleviation of anxiety in patients with dental phobia. Thirty-six medication-free patients who met the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) criteria for dental phobia were randomly assigned to either Eye Movement Desensitization and Reprocessing (EMDR) or a waitlist control condition. Dental anxiety was assessed using the Dental Anxiety Schedule (DAS) and the Self-Reported Anxiety Scale for dental phobia (ARSP). A repeated-measures analysis of variance was used to compare the primary outcome measures (DAS and ARSP) between the two groups. The mean DAS and ARSP scores for the primary outcome measures were $\bar{D} = 2.25$ and $\bar{D} = 1.17$, respectively. These effects were significant within 1 month ($d = 3.30$ and $d = 2.29$, respectively) and 12 months ($d = 3.75$ and $d = 1.79$, respectively) after treatment. More than 85% of the patients were in regular dental treatment ($d = 3.26$). The findings suggest that therapy aimed at processing memories of past dental events can be helpful for patients with dental phobia.

Usefulness of a Trauma-Focused Treatment Approach for Travel Phobia

Ad de Jongh, Marth Hofmans, Willem Cornelius and Herman Tan.

People in general and patients with travel phobia experience fear of flying. In the light of the findings of the past few years, it has been suggested that a trauma-focused treatment approach is effective in reducing travel phobia. However, the present study investigated the usefulness of a trauma-focused treatment approach in a randomized controlled trial (RCT) with patients with travel phobia. The patients were randomized to either a trauma-focused CBT group or an EMDR group. The results showed that both treatments were effective in reducing travel phobia. The trauma-focused CBT group showed a more rapid reduction of anxiety and psychometric symptoms compared to the EMDR group. The improvements were obtained within an average course of 7.3 sessions of 1 hour each.
Conclusions

Case conceptualisation

Basic assumptions
(based upon AIP model)

- There are (always) different symptoms/complaints
- All symptoms have their own dynamic and developmental history
- The symptoms can be linked to specific memories on a time line
- The processing of these memories leads to symptom reduction
**Make an inventory of the symptoms or complaints**

Collect information about the symptoms the patient is suffering from (e.g., anxiety disorders, depression, sleeping problems, etc.)

---

**Decide which symptom(cluster) should be treated first**

Choose which symptom (cluster) is to be treated first on the basis of the degree to which the complaints influence the patient’s life in a negative manner

“Looking over this list, which of these complaints would need to disappear from your life first before you could feel better again?”

---

**From symptoms to memories: using a time line**

Events?

But these events do not have to be ‘crucial’. That may make a feedback technique not always specific or efficient

Diagnosis/Syndrom?  Symptoms?
- Panic disorder  - Fear of getting a panic attack

---
1. Formulate the therapeutic purpose of the EMDR procedure for your patient

It is important to share your vision with your patient on his/her complaints and the treatment you think is needed. Formulate a clear goal of what at the end of the treatment should be attained.

1. Formulate the therapeutic purpose of the EMDR procedure for your patients

What we have to figure out now is what memories are crucial to understand your fear. I assume that you are not born with this fear? So your fear started due to a certain event or series of events. Through these experiences you have learned to fear... [e.g., ‘a dog’]. These experiences are, as memories, still active. One could say that every time you are exposed to a difficult situation [for example: a walk in a park or being exposed to a dog], memories of a former ‘damaging’ event [for example: being bitten by a dog] are - consciously or unconsciously - triggered and reactivated. With EMDR I will help you to resolve these memories so that they lose their emotional charge. Once these memories become neutral they do not longer stand in the way for you to enter certain situations that might be related to your fear [such as ‘making a walk in a park’], and thereby increase your confidence in doing so. To find the right memories I’ll ask you to search in your mind through time, like a time machine, to determine which event on your timeline has started, or has aggravated, your fear.

2. Identify the event that started the fear, and subsequent events that contributed to the fear, and place these on a timeline

- Draw a timeline (therapist draws a line). This will be the x-axis of a graph that displays the evolution of the fear in time.

  "We’re going to create a timeline which indicates the course of your fear in time. How old are you now?"

- Specify the current age of the patient on the right end side of the line, and write a 0 (of 0 years) on the left end of the line.
Identify the event by which, or after which, the fear has begun, and the events after which the fear clearly worsened.

Place these events on the timeline.

“You aren’t born with this problem, right?....So, in the beginning there was nothing, but somewhere on the line your fear started.......In your memory, when did this fear start?.........Please place, by marking, this event (i.e., after which the fear started) on the timeline.”

Check: “Are you sure you did not suffer from this fear prior to this event? If so, please include this event by placing it on the timeline.”

‘After what event/s did the fear get worse”?/Which situations gave rise to how fearful you are now?”

Mark these events also on the timeline.

3. Indicate the severity of the fear on the y-axis and create a line that graphically displays the course of the complaints in time

“We now have collected the events that are related to your fear on a timeline. Let’s take a look how your fear was affected by these events over time. Please draw a line and create a graphic display (draw an y-axis) showing how the severity of your fear has changed over time.

A ‘Bend’ in the chart means that a certain event made a significant contribution to your fear so that it increased in severity. Do you understand this?”

If being so, support further if needed: “How severe was your fear in this period… and in this period?”
1. Draw a time line (x-axis) and place the events that you assessed on that line.

2. Indicate the severity of the complaints (y-axis).

3. Ask the patient to draw a graphic display of the course of the complaints in time.

**Summery: outlining the course of the complaints in time**

- **Being bitten by a dog**
- **Dog attacked another person**

**Explanation:** “You have not been born with these complaints, have you?”

- **Horizontal axis:** put a sign on the time line and mark the ages
- **Vertical axis:** severity of the fear
- **If possible, ask the patient to draw the graph**

**Important points**

- You do not draw how *disturbing* it was *then* (emotions, e.g., state anxiety)
- You are not drawing how *disturbing* it is to think of it *now* (SUD)
- But you draw: *(the course of) the intensity of the symptoms across time*
Example

Your client has an extreme fear of dental treatment.

Assignment:

- In pairs of two. Determine who is The Therapist and who is The Client.
- Therapist: Asks the client (B) a few questions in order to identify the crucial target memories.
- Client: Responds to what the questions do to you by answering the questions based upon his/her memory (but only if the question is adequately posed and thus is potentially capable of ‘unlocking’ the memory).

Example

You are afraid of the dental treatment. Particularly of losing control and to experience a panic attack. This fear started after a treatment at the dentist when you were young and you felt locked in, and couldn’t go anywhere. Two years ago this fear has aggravated when a burglar broke into your house. You discovered the intruder and then he tried to strangle you. Since that moment you’re very sensitive while experiencing a fear of fingers around your throat and mouth. This fear manifests itself in a variety of situations, including those of undergoing dental treatment.

Only for Groep B (clients),
A’s (therapists) close their eyes now

You are afraid of the dental treatment. Particularly of losing control and to experience a panic attack. This fear started after a treatment at the dentist when you were young and you felt locked in, and couldn’t go anywhere. Two years ago this fear has aggravated when a burglar broke into your house. You discovered the intruder and then he tried to strangle you. Since that moment you’re very sensitive while experiencing a fear of fingers around your throat and mouth. This fear manifests itself in a variety of situations, including those of undergoing dental treatment.

Exercise

The Client visits you because he/she has a number of complaints.

Assignment:

- Therapists: Makes an inventory of the complaints. Draws a graphic display showing the crucial events of which the memories need to be resolved.
Carry out the assignment

Symptom clusters

Fear of dental treatment

Beginning of the dental fear

Strangulation during the burglary

But now the client visits you for treatment. What is the first question that you would ask him/her?

“Which complaint bothers you most?”

If the client for instance says: “Sleeping problems”, what do you say then?

“When did these complaints begin?”

Draw this time line
(This is thus another time line than the one which was drawn in the previous exercise!)
4. Decide what memories, in which order, should be processed

- Process all relevant memories as indicated on the timeline.
- Please do this in chronological order, from left to right, starting with the memory of the event after which the complaints began.
- There may be reasons to depart from this rule of thumb. For example, if there is reason to believe that a certain, more recent, event contributed to a strong worsening of the fear (a significant ‘bend’ in the line indicating a strong increase in complaints).

Which memories are most relevant?

- In case of doubt, the following questions can be asked to identify relevant memories:
  - “Reviewing all of this, which of these memories should, to your idea, be the first to disappear from your life so that it goes better with you?”
  - “What memory influences your fear most, now?”
  - “When you bring these memories up in mind, which memory causes most tension?”

Determine, based upon the answers with the patient, with which memory to start with

General rule

- Process the relevant memories in chronological order
- Select other memories only in case there are important arguments. For instance, when there is a strong ‘fueling’ relationship with another memory (a strong ‘knee’ in the graphic that shows a strong increase of severity of the complaints after that incident)
Apply the Standard Protocol

Apply to the memories identified above. Repeat this step for all relevant memories that underlie the fear.

But there are other potentially relevant memories!

Phobic stimulus and feared consequence

If .......... then........

Stimulus/CS

Catastrophe/UCS

...I get injected....

...I'll suffocate

...the needle will break

...I'll faint

...I'll die

refers to a critical memory/mental representation
You are afraid of the dental treatment. Particularly of losing control and to experience a panic attack. This fear started after a treatment at the dentist when you were young and you felt locked in, and couldn’t go anywhere. Two years ago this fear has aggravated when a burglar broke into your house. You discovered the intruder and then he tried to strangle you. Since that moment you’re very sensitive while experiencing a fear of fingers around your throat and mouth. This fear manifests itself in a variety of situations, including those of undergoing dental treatment.

If ............ then..........

When did your fear of suffocating begin?

When did your fear of breaking needles begin?

When did your fear of fainting begin?

When did your fear of dying begin?

a. On the basis of the frightening stimulus (‘if’):

“When did your fear of ........ [stimulus; e.g., injection needle, dog] begin, and when did it worsen?”

b. On the basis of the catastrophe this person fears (‘then’):

“What do you think will happen if you are confronted with [stimulus]? ........

“When did your fear of ........ [catastrophe; e.g., fainting, being bitten] begin, and when did it worsen?”

If necessary, modify the time line if new memories need to be added to it (only if there is a ‘bend’ in the graph)
Quizz
- Peter has a flight phobia. He has experienced a number of flights during which he got panic-like attacks. Particularly looking outside and into the depth appears to be anxiety provoking. Peter does not dare to take the airplane anymore.
- What is the CS?
- What kind of information is still missing and should be assessed?
- Th: What do you fear that will happen if you look into the depth?
- Cl: It sounds stupid, but I think I will fall

Write down 3 different questions by which it is possible to assess appropriate targets for Peter's flight phobia

- When did your fear of...... begin?
- ..bridges begin?”
- ..looking outside an airplane window begin?”
- ..falling down begin?”
Peter’s flight phobia

- In response to the last question he indicates that prior to his fear of flying he already suffered from fear of heights.
- The memory that came up was that when he was young he once visited a lighthouse with his parents.
- On the top, his father took him on his back and performed all kinds of dangerous and anxiety eliciting acts. Mother was panicking.
- This picture is still disturbing (NC= ‘I am in danger’)

What is meant by a flashforward?

- The mental representation of an unlikely (irrational) future feared catastrophe
This type of imagery ('flashforwards') may be a core aspect of most anxiety disorders.

Two studies examined whether EMDR affects recurrent, intrusive images about potential future catastrophes ('flashforwards').

- Two samples of students who suffered from recurrent distressing intrusive images about impending danger (n=28 + n=37)
- Two negative visual images about events they feared might happen to them in the future (e.g., the funeral of a loved one, being hit by a car)
- These flashforwards were randomly distributed to either 'recall with eye movements' or 'recall only' condition
- Four sets of 24-s each with 10-s breaks in between
Note that these effects were found after just 96 seconds of recall + eye movements
How to do a flashforward?

- Use patient's flashforward as a target for processing with the **Standard EMDR Protocol**
  - The NC is **standard** and in the domain of control ("I am powerless" against my flashforward)
  - Use as standard PC: "I can handle this (image)"

Back to target: what to say?

- "Go back to the picture as it is stored in your brain right now"
- "How disturbing is it right now (SUD)?"
- "What in the picture makes it a ....[7]?"

- Do not allow the chains to be longer than 7 minutes
Case #1

A young woman has a flight phobia......

Two months later now:

She still can't find back the picture of the crashing. It seems that she lost the ability to make one.... She has not yet made a flight as it was not necessary as yet.

Ad, We arrived safely (of course you would say;) the flight went ok! Stopover too....

Bye bye!
Essential elements of a flashforward for using EMDR

- A detailed and still picture ('at the second'): falling down
- Catastrophic
- Intrusive and disturbing

Flashforwards: where do they come from?

Fear and avoidance

- Past events: previous confrontations with a traumatic stressor
- Modeling experiences: having seen something happening
- Other sources of negative information: stories of others, books, movies etc.

Gruwelverhalen over tropische Valse Weduwe in Groot-Brittannië

“In Bromley, a suburb in South-East London, the 66 year old John Catlin was making a stake when he suddenly felt a tingling in his toe. A few hours later he was hospitalized and trembling of fever and heart palpitations. His leg was still swelling and on his bright red skin there were blisters with the size of eggs. Kidneys and other organs started to collapse. The doctors almost failed to save Catlin’s life.

In recent weeks in the English newspapers similar stories appeared. In Essex, doctors had to cut open the leg of a 39-year-old paper-hanger along the full length, to take out the poison.”
What is your response when this happens to you?

*The false widow is the cousin of the black widow and Britain's most venomous spider*

---

FLASHFORWARD

How to do a flashforward?

• It is important to create a framework that enables the patient thinking about the impending doom of the worst case scenario. For example:

• "What we need to figure out is what kind of image is in your mind that makes you fearful about a future confrontation with the thing/the one you fear. What do you fear that will happen, and will go wrong when you are confronted with the situation you are avoiding now? In the worst case. So basically we should look for your ultimate doom scenario, the worst thing that could happen to you. Please make a still picture of that disaster image"
When to use a flashforward in clinical practice?

- If all relevant memories of past events have been fully processed, and it is not possible to find any other memory that is at the root of client’s current symptoms
- When the patient still experiences anticipatory fear of confrontations with certain objects or situations

MENTAL REPRESENTATION OF UNCONDITIONED STIMULUS

[Diagram of conditioning process]

<table>
<thead>
<tr>
<th>CS (light)</th>
<th>No response or irrelevant response</th>
</tr>
</thead>
<tbody>
<tr>
<td>US (food)</td>
<td>UR (salivation)</td>
</tr>
<tr>
<td>CS (light)</td>
<td>UR (salivation)</td>
</tr>
<tr>
<td>US (food)</td>
<td>CR (salivation)</td>
</tr>
</tbody>
</table>
A flashforward is not a picture of the person experiencing his symptoms.

Clinical approach:
What is in the brain of the client, that needs to be removed to diminish the current symptomatology?
What do many people (women) fear when they are confronted with a spider?

“It (he) will crawl into my private parts...”
Bird phobia

Targeting the sudden attack

Bird (Hitchcock, 1963)

What to do when there is nothing there?

- Targeting any mental representation that seems ‘key’

Questions, highlights, and take home messages
Highlights en questions (1)

• The memories of etiological events first?
• What are the potential mental representations to target?
• Always look for ‘the disaster beyond the disaster’

Look for the catastrophe beyond the catastrophe (driving phobia)

What could be a potential target?

Keep asking: “What is so terrible about it? “

Highlights en questions (2)

• No problem when the associations go to the past. Just continue.
• Don’t forget the future template!
• Indications for the use of flashforwards?
Potential use of flashforwards in clinical practice

- Dog phobia (being attacked by a dog)
- Dental and medical phobias (extreme pain, being powerless, bleeding to death)
- Social phobia (being rejected or other embarrassing situation)
- Obsessive compulsive disorder (being contaminated; house in flame)
- Body dysmorphic disorder (a negative remark about appearance)
- Hypochondriasis (the end phase of a terminal illness)
- Psychosis (delusion)

Other examples

- Fear of childbirth (death of the child)
- Loss of desire in having sex (painful experience, failure)

Case #2

A woman with a fear of childbirth...
Highlights en questions (3)

• What to do when there are still complaints, or avoidance behavior, after the flashforward has been applied succesfully?

Case #3

A young woman with a cat phobia...

Three weeks later:

Yesterday, I was walking in the street and suddenly a cat passed beside me! at the beginning I stopped walking for seconds and then I walk normally and continue my way without any old signs I had before!
I am so happy and proud of myself because my situation is getting better. Thank you very much for your help.
Flashforwards with children
Example

Case #3

A 7-years old boy has a dog phobia......

Overview
Treatment strategy

Fear and avoidance

Event that caused the fear

Events that worsened the fear

Directly on the disaster fantasy (flashforward)

Future template

Reprocessing of targets

EMDR treatment

Memories (des. + install.)
Flashforward (des. + install.)
Future template (install.)
Video check (install.)
Behavioral experiment

How effective Flashforwards can be
in clinical practice
Example
Amazing flashforward

Response four months after the intervention

“The visit to the dentist went really well! Especially the week before the dental visit. Actually, I was not thinking about it at all. I also did not have dreams about it, with shattered tooth etc. Even the night before I slept wonderfully. Quite strange ... It was just as if it did not really matter or so. It was just not there and I felt very calm. Normally, I was crying of fear in the dental chair, but now it was very quiet. It is still not a pleasure to go to the dentist, but somehow the experience of it is very different. Less big, or less present ... Really great!”

“Where is the disaster scenario now?”

“I have the picture (I think). But it is very vague and flattened, and I can’t really form the details in my mind. I sometimes try to search "in my thoughts" looking for that image, but I never come close. It feels like: I find nothing but, yes, I don’t even know what I’m looking for, so let it be and that is okay”.

If you see this....and that in no longer than half an hour time.... how easy is it to get inspired of what we can do with EMDR to contribute helping people stop suffering?

EMDR and beyond: in vivo exposure and behavioral experiments

Joy Ann suffers from a worm phobia. Since his childhood, she has difficulties with for instance gardening and swimming in water. EMDR was performed on a memory of a situation in the garden where her mother threw a worm to her and which fell on her lap. She was terrified (SUD=0; VOC=7). Also EMDR was done focused on a flashforward of a worm going through her skin (SUD=0; VOC=7). The future template was quite difficult because of the disgust that had not been processed. The next step is an exposure in vivo
Create a framework in which thinking about the catastrophe becomes possible

Worm phobia

*Exposure in vivo*

Discuss in a small group of 2-3 persons how a hierarchy could be made of stimuli situations in case of a worm phobia. Use the following three main variables:

**distance, intensity and time**

Create an effective anxiety-reduction protocol, based upon the principles of graded exposure and focused on the extinction of fear of worms.
Behavioral experiment

Exposure to the stimulus and the person experiences the absence of any feared consequence (i.e. aversive outcome)

Disconfirmation of the irrational belief: patient learns that the fear is unfounded and negative predictions are adjusted

Systematic confrontations with the phobic stimulus

80% NOTHING HAPPENS??!

0%

Anxiety reduction
Behavioral experiment

1. **Identify stimulus situation [CS]**
   "What exactly (object or situation) triggers your fear most?" [e.g., driving into a tunnel]

2. **Identify expected catastrophe [US]**
   "What are you afraid of that could happen when you are exposed to......[going into a tunnel?] ("Then I will lose control and die")

3. **Formulation of prediction in terms of an ‘if.....then.....’-statement**
   Is it true that you are saying that IF you would go into a tunnel, THEN you would lose control and die?

4. **Exposure**
   Testing the hypothesis as if it is a scientific experiment. Gradually confronting the person with the CS, thereby preventing the UCS to occur

5. **Evaluate**
   Evaluate ‘the experiment’ in the light of the prediction and the outcome of the testing of the hypothesis. Inquire whether the client would be prepared to adjust his believability rating (e.g., by scoring the VOC again)

6. **Repeat the procedure** from step 4

---

A CASE

**Choking phobia**
Woman with a choking phobia of warm drinks that exists 28 years
Could not get children and was treated for a period of 16 months, 5 times per month, by a gynecologist
Assaulted by her gynecologist
Almost choked to death in the waiting room ("was spitting everybody")
Takes SSRIs (Paxil, 10 mg) since then
EMDR in first session on initial event (SUD = 0)
No improvement

In the next session the focus is on the mental representation of the catastrophe she fears that will happen when drinking a warm drink

The next step is a behavioral experiment
Behavioral experiment

Systematic confrontations with anxiety-provoking stimulus

If........then........

NOTHING HAPPENS?!

10%

0%

Anxiety reduction!

Thank you very much for your attention!

Prof.dr. Ad de Jongh
E-mail: info@psycho-trauma.nl
www.psycho-trauma.nl