



UvA-DARE (Digital Academic Repository)

Imagery Rescripting

an update of the treatment protocol

Arntz, Arnoud

DOI

[10.1016/j.brat.2025.104913](https://doi.org/10.1016/j.brat.2025.104913)

Publication date

2025

Document Version

Final published version

Published in

Behaviour Research and Therapy

License

CC BY

[Link to publication](#)

Citation for published version (APA):

Arntz, A. (2025). Imagery Rescripting: an update of the treatment protocol. *Behaviour Research and Therapy*, 195, Article 104913. <https://doi.org/10.1016/j.brat.2025.104913>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, P.O. Box 19185, 1000 GD Amsterdam, The Netherlands. You will be contacted as soon as possible.



Imagery Rescripting: an update of the treatment protocol

Arnoud Arntz ^{a,b,*} 

^a Department of Clinical Psychology, University of Amsterdam, the Netherlands

^b Academic Center for Trauma and Personality, Amsterdam, the Netherlands

ARTICLE INFO

Keywords:

Imagery Rescripting
Trauma
Post-traumatic stress disorder
Treatment
Psychotherapy
Early memories

ABSTRACT

Imagery Rescripting (ImRs) is a transdiagnostic technique to treat aversive memories of real (traumatic) experiences, or of aversive fantasies, such as nightmares and future projections. ImRs is getting increasingly popular, and can be used either as a standalone treatment or as part of treatment packages consisting of different techniques. It has been more than 25 years ago that a detailed treatment protocol of Imagery Rescripting (ImRs) was published (Arntz, A., & Weertman, A. (1999). Treatment of childhood memories; theory and practice. *Behaviour Research and Therapy*, 37(8), 715–740). New clinical and research insights have led to changes in the protocol, and large scale studies are based on this updated protocol. The most important changes include that it is now strongly recommended that the therapist does the rescripting in the first sessions, while the patient does the rescripting during the later sessions; and that the rescripting should start at the most difficult moment of the memory (the “hotspot”). Moreover, a standard series of questions helps to deepen the emotional processing, while specific ingredients of the rescripting help to increase the impact of the corrective experience offered by the technique. This paper presents and discusses the updated protocol as it has been developed and tested in the treatment of childhood trauma. It also offers solutions for possible problems that can be encountered in clinical practice, and discusses variations of the technique, including how to apply it to adulthood trauma's, to nightmares, and to a range of disorders and clinical problems, including pathological grief, and feared future catastrophes. It is explained that the working mechanism does not rely on installing false memories, and how therapists can prevent that false memories are installed. Finally, the paper provides a set of practical appendices including a treatment rationale and a handout that can be given to patients.

1. Introduction

Imagery Rescripting (ImRs) is a transdiagnostic technique by which aversive memories of real (traumatic) experiences, or of aversive fantasies, such as nightmares and future projections can be processed so that their emotional meaning changes. In short, in ImRs the patient imagines the aversive experience as if it happens in the here and now. At the most difficult moment, called the “hotspot”, the patient imagines that an intervention takes place that changes the course of events in such a way that the patient's needs are met. This imagination of a new scenario leads to emotional and cognitive processing of the emotional (trauma) memory, changing the meaning of the experience from dysfunctional to more functional.

ImRs has a long history, with roots in ancient healing practices and used in various forms of psychodynamic and experiential therapies, as well as hypnotherapy (Edwards, 2007). But it was mainly through Gestalt therapy that ImRs entered CBT (Edwards, 2007). There are many

ways in which ImRs can be done. Moreover, there is no universally accepted definition of which imaging techniques can be considered ImRs, and which cannot. It is beyond the scope of this paper to address this issue. However, some imagination techniques are generally considered to be a form of ImRs, are protocolized, and have been tested in several studies. Some of them are stand-alone treatments, others part of a more extensive treatment. [Box 1](#) explains how the ImRs protocol that is the topic of the present paper differs from the most important other protocols. The present paper focuses on a specific protocol, without claiming that it is the only or the ultimate way to apply ImRs. Another disclaimer is that the present author did not “invent” ImRs, rather he learned the technique from various sources and co-developed a protocol that could be tested in clinical trials. For scientific reasons, it is important for researchers to be transparent about which technique they have investigated. To facilitate this, published protocols are needed, and this article provides such a protocol.

Our current understanding of the mechanism underlying ImRs is that

* Department of Clinical Psychology, University of Amsterdam, the Netherlands.

E-mail address: a.r.arntz@uva.nl.

the technique leads to a transformation of the emotional meaning of the memory representation. Apparently, although the change in the sequence of events is fantasized, the vivid imagery of the change offers a corrective experience. This is probably related to the capacity of most people to imagine so vividly that there is little difference in brain activation compared to a real experience, except for the posterior brain parts, where the primary and secondary visual sensory input is processed, as demonstrated in fMRI studies (e.g., [Ganis et al., 2004](#)). Thus, although the person is aware that the rescripting is a procedure based on fantasy, the impact can be similar to a real corrective experience. Recent

studies into mechanisms of change in ImRs support the hypothesis that changes in emotional meaning underly the effects ([Assmann et al., 2024](#); [Kunze et al., 2019](#); [Rameckers et al., 2024](#)). In conditioning theory this phenomenon can be conceptualized as a form of UCS-revaluation (Arntz, 2012). UCS-revaluation refers to the phenomenon that later experiences with the unconditioned stimulus (UCS) can change the evaluation (meaning) of the UCS, in turn leading to a change in the conditioned response. What is unclear, however, is whether the emotional meaning part of the original memory representation can disappear by being replaced by the new meaning, or whether the new meaning constitutes

BOX 1

Important differences between Imagery Rescripting as presented in the present paper (denoted here as ImRs*) and other protocols. Imagery Rescripting and Reprocessing Therapy (IRRT; [Smucker et al., 1995](#) ab; [Grunert et al., 2007](#)) compared to ImRs*

1. IRRT starts with imaginal exposure to the complete trauma memory. With ImRs* the memory activation part stops when the hotspot is reached (or, if hotspot is late in the memory/is after the trauma, trauma memory activation can start just before the hotspot). Exposure to the complete trauma memory is not part of ImRs*.
2. In IRRT, the rescripting starts when the molestation starts. In a later version for non-interpersonal trauma, the rescripting starts when the subjective distress reaches its peak ([Grunert et al., 2007](#)). In contrast, in ImRs* the rescripting starts at the hotspot.
3. In IRRT, the patient's adult self (current self) performs the rescripting. In ImRs*, therapists rescript in the initial phase of treatment.
4. In IRRT, focus is on mastery by the current self, not so much on the needs of the child (or the past self), as in ImRs*.
5. In IRRT the patient's perspective during rescripting is the adult's (current) self. In ImRs*, patients stay in the child perspective in the early phase of therapy, when therapists rescript. In the later phase of therapy, patients switch back to the child perspective after they completed rescripting by their adult (current) self.
6. In IRRT there is prolonged post-imagery "re-processing", described as "linguistic processing of the just-completed imagery session, while reinforcing the alternative positive representations (visual and verbal) created during the mastery imagery" ([Grunert et al., 2007](#), p. 322). In ImRs*, such a re-processing phase is not prescribed. Although it is allowed to reflect with the patient on the ImRs* just completed, the idea is that the experiential elements of the technique do most of the job.
7. In IRRT, patients are requested to listen to audio-recordings of the sessions as daily homework. This is not done in ImRs*.

Important differences between British applications and ImRs*

1. The British tradition is to identify core dysfunctional interpretations of the traumatic experience or encapsulated beliefs, to challenge these with cognitive therapy techniques, to formulate a more functional interpretation, and to prepare the way rescripting has to be done in detail. A next session, the prepared rescripting is applied (e.g., [Wild & Clark, 2011](#)). In ImRs* there is little preparation, the technique relies on what is developing during the process of applying it.
2. Relatedly, the focus of the imagery rescripting is more to "update the trauma memory" with current and functional insights, than to meet the needs of the child (or, the past self) as in ImRs*.
3. In general, in the British application, the patient rescripts, rather than the therapist.

Important differences between imagery rescripting as used in Schema Therapy (ST) and ImRs*

1. In the ST applications proposed (and modeled) by Young ([Young et al., 2003](#)), there are usually frequent switches between current self and child perspectives. In ImRs* the perspective remains the same during each phase. This deepens the emotional processing and leads to less confusion about the perspective the patient takes.
2. The ST applications as proposed (and modeled) by Young are usually shorter and don't deepen the process by repeatedly posing the standard questions as used in the ImRs protocol.
3. However, an important similarity is that both focus on needs that were insufficiently met.

Important differences between Imagery Rehearsal Therapy (IRT; [Albanese et al., 2022](#)) for nightmares and ImRs*

1. In IRT, the patient writes down how they want to change the nightmare, so that it would become a positive dream. In ImRs* there is usually no writing assignment given to patients to prepare the rescripting.
2. In IRT, the new script does not necessarily involve changing the ending. In ImRs* the rescripting usually implies a new ending.
3. In IRT, patients daily rehearse the new script. In ImRs* there is no repeated mental rehearsing of the new script.
4. In IRT, the new script is mentally rehearsed without activation of the nightmare memory. In contrast, in ImRs* the new script is linked to the emotional memory.

*ImRs as described in the present paper, that is not imagery rescripting in a more general meaning.

an alternative memory trace that inhibits the activation of the original meaning (Arntz, 2012; Brewin, 2006; Dibbets et al., 2012). In contrast, it is clear that the memory of the factual details remains intact, hence the mechanism is not based on inducing a false memory in which the person believes (see section 6. *Preventing false memories* for further discussion). There is evidence that the new meaning is the most effective therapeutically when linked to the core of the original emotional memory representation, i.e. the most distressing and painful part (Dibbets & Arntz, 2015). Therefore, ImRs should start after this part of the emotional memory has been activated. In clinical practice, this means that rescripting starts at the hotspot, i.e. when the most difficult part of the emotional memory has been reached and emotionally experienced. Moreover, the better the person's needs as experienced during the process are met, the better the treatment effects are (Koetsier et al., 2024). This supports the assumption underlying ImRs, that meeting the person's needs (as experienced during the activation of the trauma memory activation) is a corrective experience, leading to a change in the emotional meaning of the original experience. A last insight into working mechanisms is that positive effects of ImRs applied to a specific memory spread to other associated memories (in line with spreading activation theory, Anderson & Pirolli, 1984). People are generally able to indicate the degree to which memories are associated, which predicts the degree to which the emotional meaning of the associated memories are affected by rescripting the target memory (Rijkeboer et al., in preparation).

Because emotional memories underlie many clinical problems, ImRs has a wide range of applications. Moreover, whether or not the memory is based upon a real experience, or upon a fantasy, makes little difference for the technique. There is no a priori reason why emotional memories of past events should be treated differently than emotional memories of fantasies (including nightmares and negative future expectations), and we have to keep in mind that memories are subjective anyway, especially when it comes to their emotional meaning. Indeed, studies showed good effects of ImRs for nightmares and negative future expectations (Kroener et al., 2023; Kunze et al., 2017).

Quite some fundamental, subclinical, and clinical studies have been done so far, nevertheless many questions remain (see Hagenaaers et al., this issue, for a research agenda). But although the research agenda has not been completed, clinical studies have demonstrated the effectiveness and the high acceptability (low treatment dropout) of ImRs for a wide range of clinical problems, ranging from simple phobia to complex disorders such as borderline personality disorder and psychosis. Meta-analyses support the empirical basis of the effectiveness of ImRs (Kip et al., 2023; Kroener et al., 2023). On the other hand, the evidence for disorders other than PTSD is still limited, although Kroener et al. (2023) reported separate meta-analyses of studies on prospective mental imagery and social anxiety disorder in addition to a meta-analysis of PTSD studies. Nevertheless, there is a clear need for more (multicentre) studies on a wider range of disorders, reporting not only the effectiveness, but also the treatment retention, and safety of the technique. It should also be noted that meta-analyses did not show that ImRs is more effective than other evidence-based treatments.

ImRs is getting increasingly popular, and can be used either as a standalone treatment or as part of treatment packages consisting of different techniques, such as in cognitive therapy (Clark et al., 2006; Ehlers et al., 2005) and schema therapy (Arntz & Jacob, 2017; Arntz and van Genderen, 2020; Young et al., 2003). It has been more than 25 years ago that a detailed treatment protocol of ImRs was published (Arntz & Weertman, 1999). In the meantime new clinical and research insights have led to changes in the protocol. Recent large scale studies were based on this updated protocol (e.g., the IREM-study, Boterhoven de Haan et al., 2020; the TOPA-study, Lortye et al., 2025; the IREM-Freq-study, Wibbelink et al., 2021), and it is important to inform clinicians and researchers about the update. Hence, the aim of this paper is to share the updated ImRs protocol, as well as our current view on how to deal with specific situations and challenges that one might encounter

when applying the technique. First, the standard ImRs protocol as developed for the PTSD due to childhood trauma (ch-PTSD) studies (Boterhoven de Haan et al., 2020; Wibbelink et al., 2021; later extended to PTSD in general, Lortye et al., 2021, 2025) is presented and discussed. Then, several problems that can be encountered and how they can be tackled are addressed. Next, applications to other types of aversive emotional memories and other disorders than PTSD are described. How to prevent that false memories are installed is discussed next. Lastly, a short conclusion is offered.

This paper focuses on ImRs as offered to adults. Applications for children and adolescents have been developed, but are not the subject of this paper. Moreover, the focus is on processing memories of adverse experiences. Consequently, applications of ImRs to positive memories/mental representations, that play a role in appetitive problems such as addiction, are not treated.

2. Main changes in the imagery rescripting protocol for childhood memories

Compared to the protocol as previously published (Arntz & Weertman, 1999), some important changes were made. The first study that investigated this updated protocol was the IREM-study (Boterhoven de Haan et al., 2020), followed by the IREM-Freq study (Wibbelink et al., 2021), and the TOPA-study (Lortye et al., 2025). The changes are now listed and explained.

2.1. Standard rationale

In 1999 we felt less certain about the rationale, mechanisms, and empirical support for ImRs as an effective technique than nowadays. We have now developed a standard rationale that can be used to explain the treatment to patients, as well as a handout that can be given to the patient, to explain the technique. This is important because ImRs is initially a strange technique for many people, as it raises the question of how fantasizing about something that should have happened but didn't in reality can be useful. Part of the explanation is based on fundamental brain imaging research, demonstrating that there is little difference in brain activation between imagining something vs. seeing it projected on the screen in the scanner. Thus, although we are aware that we imagine something, the brain activation is for a large part as if we experience it in reality. The major differences in activation patterns are found in the primary sensory areas in the back of the brain, which makes sense as there is no input from sensory organs (here the eyes), although even there activation is found (e.g., Ganis et al., 2004). The rationale and the handout are provided in [appendices A and B](#).

2.2. The therapists starts with rescripting

Whereas the original protocol stated that patients should imagine to enter the image as their current self, we now prescribe that the initial rescripting should be done by the therapist. The first reason for this is that, especially with more severe psychopathological problems, we have found that patients were often unable to intervene and fell back on their feelings as children, as it were, overwhelmed by the threat they faced. In other cases, patients began to blame and punish the child. In both cases, instead of providing a corrective experience, this leads to a reinforcement of the original memory representation, which is obviously not what we want to achieve with ImRs. Thus, we now prescribe that therapists step in the image and lead the rescripting. By this, they offer a corrective experience, for example, that the perpetrator is no longer invincible and has all the power, and that not the child is to blame, but the perpetrator. Secondly, the therapist offers a functional model how to intervene to stop the threat and how to take care of further needs of the child, which patients will use in the later phase of therapy when they step in the image to help their younger self and develop their own ways of rescripting. Thirdly, the experience that somebody else stands up for

you is a corrective experience in itself, especially important for patients who experienced neglect or rejection of their needs. Qualitative studies confirmed that patients value these aspects of therapists rescripting, for example they value that somebody else stood up for them, and took care of their further needs, and that therapists offer a model. But they also value the phase when they have to do the rescripting, as this empowers them and they learn to take care of themselves (Bosch & Arntz, 2023; Menninga et al., in preparation). Thus, in the 12-session ImRs protocol therapists rescript the first 6 sessions, while, patients rescript from their current perspective during the last 6 sessions.

2.3. Start rescripting at the hotspot

Previous descriptions of ImRs emphasized that the imagined intervention should start before the trauma proper happens. However, a lab study yielded convincing evidence that starting the rescripting at the most difficult moment has much better effects (Dibbets & Arntz, 2016). This is understandable from current memory theories, indicating that the core of the emotional memory should be activated before the essence of it is open for change (Faliagkas et al., 2018; Kindt & Soeter, 2023). Hence, therapists should ask before they start with ImRs of a specific memory what the most difficult moment in the memory is, to know when they have to start the intervention, c.q. when they have to instruct the patient to start the intervention (in the second phase of treatment). There might be multiple hotspots, for example with sexual abuse, when one hotspot is located within the actual abuse, whereas another hotspot is when the child tries to share what has happened with a parent, but finds the parent to respond in a punitive and rejecting way (e.g., “Stop saying such dirty things about your uncle, he is such a good man, go and wash your mouth, and never say such terrible things again”). In such cases, both hotspots need to be addressed with ImRs, sometimes in different sessions. If it is not possible to discuss what the hotspot is beforehand, for instance when an affect-bridge technique is used to find an early memory, therapists can ask patients to give a sign (e.g. raise their hands, or tell them “*This is the most difficult moment*”) so that the rescripting can start at the right moment. If it takes too much time to reach the hotspot and/or waiting for the hotspot to come leads to an (unnecessary) lengthy exposure to all horrible details of the abuse, the therapist should instruct the patients to fast forward to the hotspot. ImRs should not end in prolonged exposure, as the (assumed) working mechanism is not based on extinction by prolonged exposure to all frightening details, but change of the (often complex and interpersonal) meaning of what happened.

Table 1
Main questions used in imagery rescripting.

When patient takes the child (former) perspective
What is happening? What do you see, hear, smell, (taste) feel?
What are you emotionally feeling? Where do you feel this in your body?
What are you thinking?/What is going through your mind?
(From the hotspot on): What do you need (now)?
When patient takes the adult (current) perspective and rescripts
What is happening? What do you see, hear, smell, (taste) feel?
What are you emotionally feeling? Where do you feel this in your body?
What are you thinking?/What is going through your mind?
What do you want to do (or say)?
Therapist prompts the patient: okay, do that! (Or: say that!)
When the patient takes the child perspective and imagines the adult self intervening
What is happening? What do you see, hear, smell, (taste) feel?
What are you emotionally feeling? Where do you feel this in your body?
What are you thinking?/What is going through your mind?
(At the end of the new script): What do you need (now)?/Is there something else you need?
Therapist prompts the patient: okay, ask big << patient's name >>!

Note. The first set of questions is repeated until the hotspot is reached. Then, the question about needs is added, after which the rescripting starts. Then the full set is repeated, interspersed with rescripting interventions, until the patient's former self feels okay.

2.4. Use standard questions to deepen the process

The emotional and cognitive processing is enhanced by guiding the patient through the process by a set of standard questions, that help the patient to become aware of different aspects. This is important, because the technique is primarily *experiential*, thus the experience needs to be deepened. Therapists should not be afraid that the process is too lengthy or gets boring, as we know from participants that a lot happens in their subjective experience. Although the original protocol advised “*It can be helpful to ask the type of questions familiar to CBT therapists who use imaginal exposure: ask for sensory experiences (what do you see, smell, hear, feel, etc.), for emotions (what do you feel?), for thoughts (what is going through your mind?), for behaviour, for what is happening, etc.*” (Arntz & Weertman, 1999, p. 720; see also Table 2, p. 721), it didn't prescribe this nor was it clear how to use this while the therapist rescripts. Moreover, although in the case examples questions asking the child what they need are given, questions asking for needs missed in the proposed standard questions. In developing a standard protocol for the RCTs, we underlined that therapists should cycle through a standard set of questions, and that from the hotspot moment on, the question “*What do you need (now)?*” has to be added, also during the rescripting phase. This question helps patients to become aware of their needs, and to verbalize them – a capacity that is often underdeveloped in more severe forms of psychopathology, but is necessary for reaching a higher degree of wellbeing. Moreover, the answer informs therapists what to address in the rescripting. Note that this question is not asked before the hotspot is reached, as it might tempt therapists to start rescripting too early, and doing nothing while an explicit need is expressed is rather painful. Some patients are initially unable to answer the need question. In such cases therapists should reassure the patient and suggest what they might need, then start rescripting, and check what the effects of the first round of rescripting are. By trial and error, the actions needed will be found. Lastly, feedback from therapists informed us that adding a question about how the emotion is experienced in the body helps patients to deepen the emotional experience. Table 1 presents the standard questions of the current protocol, both for the phase where the therapist rescripts, and for the phase where the patient rescripts.

2.5. Actively reattribute shame and guilt

We learned from patient feedback that it is important to actively tell them, when the therapist rescripts, that they are not to blame, but that the perpetrator is responsible and should be ashamed for doing this to a

child (Raabe et al., 2022). Therapists reassure the child that they are a good and nice child (person), and that they don't deserve the abuse or neglect, etc. Especially if a parent is the perpetrator, therapists abstain from making character attributions. Rather they attribute the behaviour to emotional problems and mental health issues of the parent. Nobody wants to be the child of an inherently bad father or mother, and understanding that parents misbehaved because of their own issues, and not because the child was a bad child and deserved or even caused maltreatment, is very helpful for patients. Hence, the protocol now prescribes active reattribution, and further psychoeducation, even when the patient doesn't actively asks for this. This is usually done shortly after the immediate threat has stopped and it is sufficiently safe for the child.

2.6. End with a positive emotional experience

Recent lab research has confirmed the practice to end the rescripting with letting the child (person) imagine doing something nice. In a nonclinical lab study it was found that ending rescripting with imagining engaging in an activity that leads to a positive emotion leads to enhanced effectiveness of ImRs on positive emotions at follow-up (Geschwind et al., 2024).

2.7. Developing a satisfying script is based on trial and error

It cannot be predicted what (fantasized) interventions will work. The basis for deciding whether the imagined interventions were satisfying is in how the patient experiences them, and here there can even be a difference between the short-term and the long-term. For example, the patient might imagine after a parent is asked to comfort the child that the parent does this. However, at the next session the patient might report that this doesn't match with how the parent is and therefore rejects the imagined change in the parent. This means that a new script has to be tried out. Thus, therapists (and patients alike) should liberate themselves from the idea that they should beforehand know how to intervene. They should accept that developing a satisfying script is a matter of trial and error. Therapists are recommended to model this, by responding when the patient says that an intervention doesn't work with "no problem, then I will try out something else". Of course, this requests creativity and a basic trust of therapists that they will be able to find an intervention that does the job. Therapists should build up resilience in dealing with patients rejecting their interventions as ineffective or not impossible. For instance, patients might initially reject interventions that try to control a dangerous perpetrator who is, in their view almighty. It often takes several attempts before the perpetrator is controlled, and it seems that perseverance of the therapist is the most important. It is important for therapists to develop this capacity, e.g. by training and supervision.

3. The updated imagery rescripting protocol

The treatment protocol consists of three major phases: (1) preparation; (2) therapist rescripts; (3) patient rescripts; which are now discussed. The complete treatment protocol as used in the IREM-Freq study can be found in Appendix E. In the IREM and the IREM-Freq studies, the session duration was maximum 90 min, to match the duration to what is desired in EMDR. However, these studies found that for ImRs sessions, usually 60 min suffice.

Before treatment really starts, it should be clear that the patient agrees with trauma-processing, and that the patient commits to a 12 (or other number) session treatment in a restricted period. It might well be the case that a specific period is not suitable for an intensive trauma treatment (e.g., the patient has to undergo a major surgery; a holiday is planned; there are exams taking place, etc.). This should be explicitly checked, and it might be a wise decision to postpone treatment to a later moment. Other issues that need to be checked are the days and time of

the day of the sessions. People need to recuperate from intensive trauma processing, hence their agenda should allow them to do this. Lastly, benzodiazepines and alcohol (and probably other street drugs as well) interfere with memory consolidation during sleep. They should not be used 24 h after a treatment session. In our present PTSD studies, we require stopping benzodiazepines before entering the trial.

3.1. Preparation: rationale and creating a list of memories to be addressed

Usually this preparation takes a single session, but complex cases might need several sessions, though this phase should not result in dysfunctional postponing the trauma processing work. In this phase the rationale of Imagery Rescripting is explained, and questions and doubts of the patient are addressed. Therapists can use the written out rationale (Appendix A) and give the patient a copy of the handout (Appendix B). Reassure the patient that the technique has a good evidence base, with studies showing strong effects, especially in the long-term, and high acceptability (low treatment dropout). Then, a list of (trauma/aversive) memories is created, with at least some indication of the severity of each memory. No details are needed yet, however age, perpetrator(s), repetitions, and some contextual information is helpful. Explain the patient that the list is flexible: memories can be added later, and the order in which memories are addressed is also flexible. Also explain that with successful rescripting often the impact of other memories also reduce, when these memories are associated. This means that it might not be necessary to address all memories on the list. Which memory to address when is decided together by patient and therapist on a session-by-session basis, keeping in mind that rescripting the most severe (index) trauma should not be postponed and should preferably be done in both the therapist and the patient rescripting phases. At the end of the session a pilot ImRs can be done with a memory of a minor negative experience, so that the patient understands the technique.

3.2. Imagery rescripting with the therapist rescripting

After the preparation session(s) the first proper ImRs session starts. The ImRs consists of two steps, with a subdivision of step 2, see Table 2.

The therapists asks what memory from the list the patient wants to address in the session, and asks the patient to shortly describe what happened during the experience. Age, context, and perpetrator(s) should be clear. Ask the patient to indicate what the hotspot is, that is the most difficult moment in the memory is (i.e., what is still the most troublesome). If there are multiple hotspots, decide together with the patient which to focus on in this session. This should take only a few minutes, after which the therapist instructs the patient to sit comfortable, close the eyes, and imagine the situation from the start (i.e., not yet at the hotspot). Patients are instructed to imagine the remembered situation as vividly as possible, using all the senses, from the "I perspective" of the child that is in the situation, and using present tense. Gently correct them if they use past tense by repeating what the patient says in the present tense (P: "I was in the kitchen where my mother was cooking"; T: "I am in the kitchen where my mother is cooking"). The therapist uses the standard questions (Table 1; Appendix C, first page). At the hotspot, the therapists adds the question "What do you need (now)?" and gives the patient some time to reflect on that if necessary. If patients say they don't know, even after stimulating them to try to find out, therapists might give suggestions, and see how the patient reacts. If they still don't know, or if the emotional arousal is very high and the patient is in need

Table 2

The two steps of Imagery Rescripting when the therapist rescripts.

- | |
|---|
| Step 1. Memory activation up to and including the hotspot |
| Step 2. Therapist rescripts |
| a. Therapist stops the threat |
| b. Therapist meets further needs of the child |

for immediate help, therapists say what they think the child needs and start the rescripting. It is important that patients stay in the child perspective during internally exploring what they need, with the eyes closed. If they open their eyes, gently tell them to close their eyes and be the child in the adverse situation.

Therapists then tell the patient that they are now in the image with the patient. They describe where they are (e.g., *“I am now standing between you and your mother”*) and check whether the patient can see them. Next they describe how they intervene (e.g., *“I tell you mother the following (therapist speaks angrily): ‘Madam, your daughter needs your attention now, you cannot just threaten her with locking her up if she doesn’t stop asking for attention. She was severely bullied at school and she needs you to help her and calm her down, she is very upset. Stop with threatening her and give her what she needs!’”*). After the first intervention, the therapist asks the patient how the person addressed by the therapist responds, using the first type of standard question again (*“What is happening now? How is your mother responding?”*), followed by the other standard questions. After the needs question, the therapists continues the intervention, informed by how the image developed in the patient’s fantasy, and the emotions, thoughts, and needs of the patient. It is recommended to incorporate psychoeducation into the texts spoken against the offender (s), not so much to convince the offender, but to help the patient change the meaning of what happened. (e.g., *“What is wrong with you that you cannot give your daughter what she needs? It is perfectly normal and healthy for children to ask their parent for being calmed down when they are upset. Why can’t you give this to your child? It is very bad for children to be punished for being emotional and for seeking reassurance with their parent.”*).

In case the patient is not satisfied with the intervention, which will become clear from the answers to the standard questions, try out something else. It is not a problem to rewind the image if necessary (e.g., the perpetrator was killed, but the patient doesn’t like that on second thoughts) and try out another intervention. After all, ImRs is a fantasy technique, so one can try out any intervention, until the patient (from the child perspective) is satisfied.

After the immediate threat is taken away, the therapist reassures the child, and provides psycho-education: *“I want you to know that it is not your fault that this happened. There is something wrong with <<perpetrator>> that (s)he behaves like this. You should not feel ashamed, you should not feel guilty, but <<perpetrator>> should feel ashamed, <<perpetrator>> does wrong things.”* In case of parents don’t make character attributions, rather attribute to dysfunctional (emotional) states, while maintaining that the parent is responsible, and point out underlying emotional/mental health problems, not as an excuse but as an explanation, while underlining the need that the parent should change, e.g. get proper treatment (e.g., *“you mother must have some emotional problem that she reacts like this, and I am going to arrange that she gets a proper treatment for that because it is not acceptable how she treats you”*).

The last part, often the most extensive part, is to take care of further needs of the child. Again, the sequence of the standard questions (Table 1) is used: standard questions – intervention by therapist – standard questions – intervention by therapists, etc. Further needs usually include: being comforted (which can involve being calmed down through imagined bodily contact, such as holding the child’s hand, giving the child a hug, etc.), taking measures to prevent repetition (e.g., giving the child a pager to alarm the therapist when needed, who reassures to fly in immediately in to intervene and protect the child; bringing the child to another family where it is safe and where there is a caring and happy atmosphere); and doing something pleasurable at the end (e.g., playing with other children, eating favourite food (pancakes, ice cream), watching a favourite movie, being read a favourite story). If the child doesn’t ask for doing something nice at the end, actively propose it: this helps to strengthen the effects of the technique. End the ImRs when the child feels fine and no further needs are to be met.

Following the ImRs, the experience can be shortly discussed, and the patient can be helped to integrate the different aspects the patient

became aware of. However, rely on that the experiential work done is the primary source of change. In other words, there is (usually) no need for extensive discussions of what happened during the rescripting, and what the implications are. Help the patient to calm down a bit before ending the session. If necessary, the patient can sit in the waiting room to further calm down.

Returning to the step where the therapist begins to intervene, the level of forcefulness and aggressiveness of the intervention needs some reflection. Therapists are recommended to tailor the intervention to the situation. E.g., when the hotspot is in the middle of brutal physical or sexual abuse, a forceful intervention is appropriate, including physically pulling the perpetrator away from the child. For other types of negative childhood experiences, however, a firm but less (physically) aggressive intervention is appropriate. Exaggeration can frighten the patient and is especially problematic if the child has an ambivalent relationship with the perpetrator, for example when the perpetrator is also a source of love and recognition. Also, a firm and clear but polite verbal confrontation can have a surprising effect on the perpetrator, in the patient’s experience. So a safe approach is to start with an intervention of an intensity that seems appropriate, and scale it up if it does not work.

Box 2 presents a case example of the therapist rescripting.

3.3. Imagery rescripting with the patient rescripting

Later in treatment, patients rescript themselves. In the first session when patients start to rescript themselves, patients are given a short instruction and are reassured that the therapist will help them throughout the process: *“We are now going to let you do the rescripting. Let me explain shortly. We start as usual, by you imagining an adverse (traumatic) experience as vividly as possible. At the hotspot, I will instruct you to imagine that you enter the scene as your current self. Your task is to help your little self, and you can use anything that is necessary to accomplish this. Keep in mind that you are in control and can do whatever is necessary. If you are not satisfied with an intervention, no problem, you can try out something else. When you have finished the rescripting, we will rewind the image, and I will instruct you to be little << patient’s name >> again and experience the interventions by big << patient’s name >>. At the end you can ask big << patient’s name >> for additional actions that you need. This is a rather long explanation, but there is no need to remember everything. I will guide you through the process. Do you have any questions?”*

The process thus consists of three steps, summarized in Table 3.

As with the previous phase, when the therapist rescripted, a memory is chosen. Then the patient closes the eyes, and imagines the start of the adverse/traumatic event as vividly as possible, using the standard questions (Table 1). At the hotspot, patients are instructed to keep their eyes shut, switch perspective to their current self, and step in the image. The therapist reminds them shortly that that they are in control and have all the power to do what is necessary to help their little self. Next, the therapist continues with the standard questions, starting with asking what they see, etc. However, instead of asking for their needs, the therapist now asks for action tendencies: *“What do you want to do (or say)?”*. If the patient has expressed an action tendency, the therapist gives a prompt: *“Okay, do that!”* (or: *“Okay, say that!”*). If patients don’t describe what they do, or speak out what they say in the image, the therapist should ask them to do. This increases the impact of the rescripting. After the first intervention by the current self, the standard questions are repeated, leading to a new intervention. This continues until the patient’s current self is satisfied. The therapist might remind the patient of explaining the child why they are not guilty and should not feel ashamed. In case the therapist sees that the patient’s current self switches into a state of powerlessness, the therapist should remind the patient that they are in control and can use anything that is necessary (including calling in others to help) to achieve what should be done.

In the third step of the process, while the patient has still the eyes closed, the therapist instructs the patient to rewind the image to just before the hotspot, and be little << patient’s name >> again. The standard

Box 2

Case example of ImRs by therapist

Context: patient Emmy chooses for today an early memory of sexual abuse by father. In the list of memories there are other instances of sexual abuse by her father, but also physical violence by her father to her, her brother, and her mother; and memories of emotional neglect by mother, who was absorbed by her own emotional problems, including abandonment fears.

Step 1. Trauma memory activation up to and including the hotspot

T: can you shortly describe what the situation was that you choose to address today? Where took it place, what age were you, who was involved? What was the most difficult moment, the hotspot?

P: I was 7 years, and asleep, in my bedroom. I woke up, feeling that my vagina was touched, somebody trying to penetrate it. Then I realized that it was my father. That was the most difficult moment, discovering it was my father.

T: Okay, can you then sit comfortably, and close your eyes? Be little Emmy and imagine the situation as if it is happening in the here and now. You are lying in bed just before you feel asleep. Can you imagine that?

P: Yes.

T: Can you feel the sheets and the pillow? Do you have a cuddly toy with you?

P: Yes, I feel the sheets and I feel I hold Fluffy against my chest.

T: Can you describe what you hear?

P: I hear some noise from the kitchen below, and some people talking in the street.

T: Is there anything you smell?

P: I smell food, my mother is preparing something, soup or something.

T: And what do you see?

P: Nothing, it is dark, and I have my eyes closed.

T: How do you feel now, emotionally?

P: I feel calm and relaxed.

T: Where do you feel that in your body?

P: (P points at her shoulders and stomach).

T: What is going through your mind now?

P: How I played with my friend, after school.

T: What happens next? What do you see, hear, smell, feel in your body?

P: I'm sleeping but I feel something between my legs, trying to enter my vagina, I wake up but I still don't fully understand what is happening ... Then I hear breathing and I smell ... sweat and breath smelling of smoke. I suddenly realize it is my father!

T: How do you feel now emotionally?

P: I panic. I feel very unsafe, and confused. What is happening?

T: Where can you feel this in your body?

P: Here (holds her hands on her breastbone).

T: What are you thinking now?

P: What is going on? What is dad doing?

T: What do you need right now?

P: That he stops!

Step 2a. Therapist stops the threat

T: Okay, I am now with you in the room. I turn on the light and I am now standing behind you dad. Can you see me?

P: Yes.

T: Okay, I now pull you father away from you, and tell him (speaks with angry and loud voice): "Stop with this, are you out of your mind? What are you doing with your daughter? You cannot do this! This is very inappropriate and not good for children. You should take care that your daughter is safe, not frighten her. Never, never do this again." (To P in a softer tone of voice) How is your father responding?

P: He looks embarrassed, and surprised that you are here. He doesn't say anything. Now I see him trying to leave the room.

T: How do you feel now, as little Emmy?

P: Much better, I feel relief ... But I'm also afraid that he will come back later and punish me for letting you stop him, and doing it again.

T: Can you feel that fear in your body?

P: Yes (holds her hand on her chest and stomach).

T: What are you thinking now?

P: What if you are away?

T: What do you need now?

P: that you make sure this never happens again, and dad is not going to punish me ...

T: Okay, I tell your dad: "Don't leave now. We need to talk. First of all, you are not going to punish your daughter for the fact that I am here. This is my decision and I am here because you did something wrong, and not your daughter. If you try to do this ever again, or punish your daughter, I will be back again together with the police and you will be arrested. So don't be stupid. Secondly, I want you to apologize to your daughter. You should feel ashamed of what you did, and not your daughter. So say sorry to her and promise her to never do this again" (To little Emmy) What is your dad doing now? How does he respond?

P: He gets very angry at you and starts to hit you.

T: What do you feel now, emotionally, as little Emmy?

P: I get very afraid now.

T: Where do you feel that in your body?

P: Here (P taps her chest).

T: What are you thinking now?

P: He is going to beat you up.

T: What do you need now?

P: That he is stopped, that he goes away.

T: Okay, I call in the two police officers that are waiting at the corridor. They now enter the room. They grab him, and take him to the police station. Can you see this?

P: (Nods affirmatively).

T: How do you feel now?

P: Much better. But I am still afraid about what will happen when he returns.

T: Where do you feel that in your body?

P: (Puts her hand on her breastbone).

T: What are you thinking now?

P: That he is going to be angry and aggressive when he returns.

T: What do you need?

P: That he shouldn't return unless he is the nice dad that he also can be.

T: Okay, I'm going to arrange with child security services that your father can't come back if he can't behave himself. And that he gets treatment, because it's clear that there's something wrong with him if he behaves like that. Compulsory treatment. So he won't come back, unless he has resolved his problems. And I will keep an eye on that.

Step 2b. Therapist addresses further needs of the child

T: How do you feel now?

P: Much better. Relieved.

T: Where do you feel that in your body?

P: (Puts her hands on her shoulders).

T: What are you thinking now?

P: Where is my mother?

T: What do you need?

P: My mum.

T: Okay, I'll get you mother in a moment. But before that, I just want to reassure you that you are not guilty of what happened, and you shouldn't be ashamed about it. Your father has a problem, that makes him do these things, and he should be ashamed for what he did. Sometimes adults do these weird things when they have a problem, but you didn't deserve this at all. You are a good girl and there is nothing wrong with you. It is just sad that this happened to you, and you didn't do anything wrong. Do you understand a bit what I am saying?

P: (Nods affirmatively).

T: How are you feeling now?

P: Better, more relieved.

T: Where do you feel that in your body?

P: (First punts her hand on her shoulders, next on her stomach).

T: What are you thinking now?

P: That it is not my fault.

T: You said you need your mum, what do you want her to do?

P: To sooth me.

T: Okay, let me get her. She is now with us, can you see her? (P: Nods affirmatively) I tell your mother the following: "Mother of Emmy, can you sooth your daughter and reassure her that it is not her fault and that you will protect her so that it will never happen again?" How is your mother responding?

P: She holds me, but she is also crying and says that she doesn't know what to do now that dad is taken away by the police.

T: What do you feel now, emotionally, as little Emmy?

P: Anger.

T: Where do feel that in your body?

P: In my arms and fists.

T: What are you thinking now?

P: Mum is only concerned with herself. She doesn't really care about me.

T: What do you need now?

P: That she stops and takes care of me ... But I don't feel she is able to do that ...

T: Is there anybody else who could take care of you, and where it is safe?

P: (Nods affirmatively): grandma and granddad.

T: Okay, I tell your mother the following: "Listen madam, at this moment you don't seem to be capable of giving Emmy what she needs. It is completely normal that she needs to be comforted now, after what happened, but you are so overwhelmed by your own fears that you cannot give your daughter what she needs. And that is not good for children, children need protection, love, and being taken care of. That's why I am taking Emmy to her grandparents now, because they can take care of her. I am also going to make sure you get therapy, because you are so preoccupied with your own problems and the fear of being left by your husband that you are unable to protect Emmy and take good care of her." (To Emmy) How is your mother responding?

P: She seems to understand and even a bit relieved.

T: What are you feeling now?

P: Happy with the idea to go to Grandpa and Grandma's.

T: Where do you feel this in your body?

P: (Points at her mouth, which shows a smile).

T: What are you thinking now?

P: I want to take Fluffy with me!

T: Of course! Anything else you need?

P: (Nods no).

T: Okay then we drive now to your grandparents. Meanwhile I tell you the following: "I want you to understand that there is nothing wrong with you that your mother is not capable to properly protect you and give you what you need. It is perfectly normal that you need to be comforted by your mother, and I am very sorry that your mother suffers so much from her own problems that she is not capable to do this. You are a lovely girl and you didn't deserve this. Maybe you sometimes doubt whether you are good enough to be taken care of by your mother. I understand that you can have that doubt, but I am here to tell you that you are not the reason for this. Your mother suffers from severe emotional problems, and you should not think that you are the cause of that. So that's why I now bring you to your grandparents, because you deserve to be taken care of. Do you understand a little bit what I mean? (P nods affirmatively).

We arrive there, we stand in front of the door and I ring the bell. Do you see and hear that? (P. nods affirmatively) They open the door and I ask them: "Dear grandparents of Emmy, I have a request. Can Emmy stay with you? Right now it is not safe at her home. Her father harassed her and the police have taken him away. Her mother is so preoccupied with her own emotional problems that she cannot take care of her. They both need therapy, but that takes time. Can she stay with you in the meantime? I know you are taking very good care of her and she feels very safe with you." (To Emmy) What do they say? What is happening now?

P: They say "yes, of course", and invite us in. They give me a hug. We walk to the living room, and their dog Robby is welcoming me. He is very nice and playful.

T: How are you feeling now?

P: I feel much lighter now. It's always nice with them.

T: Where do you feel that in your body?

P: In my stomach and in my face (points at her mouth smiling).

T: What are you thinking now?

P: I am so happy to be here.

T: Is there anything else you need?

P: (Nods no).

T: If there isn't anything else you need, is there something nice you would like to do now?

P: Yes, I would like to get my favourite lemonade and lie on the couch, with my head on grandma's lap, holding Fluffy, and Robby lying next to me. Watching my favourite TV program. Grandma caressing my hair.

T: Okay, imagine that as vividly as you can. Feel you are lying on the couch, feel Fluffy, and feel Robby next to you. And feel your grandma's hand over your hair. Can you smell and taste the lemonade? See and hear the TV program?

P: (Nods affirmatively and smiles).

T: How do you feel now?

P: Good.

T: Where do you feel that in your body?

P: Over my whole body, relaxed (moves her hand over her body).

T: What are thinking now?

P: It is nice here.

T: If there is anything else you need, you can just tell me. If not, enjoy the experience for a few moments and then slowly open your eyes and return to the here and now.

P: (After some time opens the eyes).

Note. The case is fictional and any resemblance with a real person is accidental.

Table 3

The three steps of Imagery Rescripting when the patient rescripts.

Step 1. Memory activation up to and including the hotspot
Step 2. Patient rescripts from current self
a. Patient stops the threat
b. Patient meets further needs of the child
Step 3. Patient experiences the interventions from child perspective and asks adult self for additional interventions, if needed

questions are used again (Table 1). At the hotspot, when the child has expressed the needs, the therapist tells that the patient's adult self is now in the image, and asks the patient to describe what the adult self is doing (saying). After the description of the first intervention(s), the standard questions are repeated – but without the need question. It is important to postpone the need question to the end of the new script, as otherwise the script might deviate from the script as developed by the patient's adult self, which creates confusion. In case patients forget to imagine important aspects of the new script as developed by their current self, they are reminded of what the adult self did. Note that there is no need to go through all the details of the new script, however, the emotionally important parts should be experienced by the child. At the end the therapist adds the needs question (“*What do you need (now)?*”; or: “*Is there anything else that you need (now)?*”). Give patients time to reflect on that. When they express an additional need, the therapist prompts the patient to ask their adult self: “*Okay, ask big << patient's name >>*”. Again let patients say this out loud, this will enhance the effect. Then return to the standard questions (“*What is happening now? How is big << patient's name >> responding?*”). Continue through the standard questions (and the imagined interventions by the patient's adult self) until the child is fine. However, if at the end there isn't an emotionally positive activity, ask the child whether they would like to do something nice, and then instruct them to ask their big self for that.

3.3.1. General guideline for start and end of each session

3.3.1.1. Start of the session. ImRs sessions generally start with asking patients what the effects of the last ImRs were, and whether they have any thoughts about it. Patients might have developed new insights, wish the rescripting to take a different course, or want a memory to be added to the list. The therapist also asks for changes in symptoms or emotions,

as this can help to choose the memory that has to be addressed in the session, or the focus of the rescripting (e.g., more on the issue of shame). In principle, patients choose what memory to address in the session. However, therapists propose to address the index trauma rather soon in the phase where therapists rescript, and in the phase where patients rescript. Thus, the index trauma is rescripted both by the therapist and by the patient. Other memories can, but don't need to be rescripted by both the therapist and the patient. Therapists keep an eye on the choice of memories, to prevent that specific difficult issues are avoided or postponed too much. Lastly, if patients report an increase of specific emotions or symptoms, it is explored to which memory this is related, and that memory can then be addressed in the session.

3.3.1.2. End of session. At the end of the session, there is a short debriefing, therapists ask patients what they think of the session and give them the opportunity to ask questions or make comments.

3.3.2. Additional techniques

3.3.2.1. Using changes in symptoms/emotions. Changes in symptoms or emotions can be used to inform therapist and patient about what memory to choose to be addressed in a session, or what should be specifically focused upon in the rescripting. In the IREM study patients filled out the PCL-5 (PTSD symptom severity) and a list of emotions before the session, and handed this to the therapist. Increases in for instance nightmares, intrusions, guilt, or anger feelings were used to finetune the choice of memory and the rescripting. For instance, a particular nightmare may be thematically linked to a specific traumatic experience, which can be addressed in the session. As another example, an increase in anger can indicate that the ImRs should focus on anger expression.

3.3.2.2. Use of the affect bridge. A technique known as the *affect bridge* can be used to find early memories related to emotional problems in the present. This technique is usually not necessary for PTSD, a disorder in which the memories themselves are in the foreground. For many other disorders, the access to memories of experiences that underlie sensitivity to respond in a dysfunctional way in the present is not that simple. Patients might be unaware of the early experiences that contributed to their current problems, or might block or otherwise avoid their

activation. The affect bridge technique is based on an uncontrolled, associative search process. The patient is instructed to imagine being in a recent problematic situation. When the emotions related to the most difficult moment are activated, the therapist instructs the patient to keep the eyes closed, stay with the emotion, but let go of the image, and see whether an image (memory) from childhood pops up. The therapist explains that the patient should not use a controlled search strategy, but just see what comes to the mind. The image that comes up is then rescripted, in the same way as described above. In the rare times that a positive childhood memory comes up, the therapist can instruct the patient to let go of that image, and wait until a negative memory comes up. Note that initially the association between the recent experience and the early memory might be unclear, but usually it becomes clear when the rescripting is completed. Here, some reflection with the patient at the end of the session on how the early experience relates to the current problem can be helpful to increase patient's insight and maintain motivation for the ImRs work.

3.3.2.3. Safe place. Some texts advise the use of a safe place image, and some therapists use it. A safe place image is an image of a situation in which the patient feels safe. It can be a memory of a real experience, or a fantasy image. The *safe place* image can be used to start the ImRs work (the patient first imagines the safe place, then the traumatic/adverse memory), and/or to end it. Note however that the ImRs should end in a safe situation and a positive emotional experience anyway, hence, it is unclear what a safe place image would add here. Moreover, for some severe patients the world in total is unsafe, and the search for a safe place image takes a lot of time and might fail. Thus, there is a risk that this search for a (non-necessary) imagery takes a lot of time and results in a failure experience, reinforcing dysfunctional ideas. Note that to the best of the present author's knowledge, no research has been done into the positive or negative effects of the *safe place*.

3.3.2.4. Self-help. The version of ImRs in which the patient rescripts can also be used by the patients outside of the session. Indeed, in a qualitative study, some patients reported they spontaneously used it after treatment (Menninga et al., 2024). Perhaps this is one of the factors explaining the increase of effects observed after end of treatment (Boterhoven de Haan et al., 2020; Raabe et al., 2022). On request of participants in her study of ImRs for voice hearers, Paulik developed a short imagery exercise that patients can use to deal with negative feelings (Paulik et al., 2019). The text is provided in Appendix D. Lastly, Moritz et al. (2018) developed extensive instructions for a self-help form of ImRs, of which the effectiveness was demonstrated in an RCT (though effect size tended to be smaller than with treatment provided by a therapist).

3.3.2.5. Homework. In the initial protocol patients were instructed to listen to audio recordings of the ImRs, in between sessions (Arntz & Weertman, 1999). We no longer request patients to do so. It doesn't seem to contribute to the effectiveness of ImRs, and many patients don't like it, don't do it, or do it in a superficial way (e.g., while doing something else to distract), which leads to the therapist having to discuss this and trying to convince the patient to do the homework in a proper way. In our experience, this takes a lot of time and doesn't facilitate the therapeutic alliance. We rather focus on the in-session work itself. However, if patients want to make a recording for their own use, this is allowed, under the condition that they don't share it with others. It should be noted that the decision to not request patients to listen to session recordings is based on clinical observations, including that effectiveness remained high after deleting this homework from the protocol. However, this has never been tested in an RCT.

Patients can be asked to prepare sessions, for instance by writing down (aspects of) memories that come to their mind, rethink the list of trauma's to be covered, ask them to think about how an alternative

rescripting can be done if they are not completely satisfied with the rescripting in the session, visit places associated with adverse/traumatic memories to enhance their reactivation, bring pictures from childhood to the session to help reactivation, etc.

4. Addressing possible problems applying imagery rescripting

4.1. Dissociation

As dissociation is a fuzzy (container) construct, and some definitions include reliving and overwhelming emotions, there is not a single approach. Here two subtypes of dissociation are discussed. The first type of dissociation that creates problems with applying ImRs is when the attention to the task is blocked by dissociative responses such as derealization, depersonalization, (pseudo-)hallucinations, and pseudo-epileptic seizures. First of all, therapists should be aware that control (or power) over the threat is essential. With a growing experience of the therapist, and later the patients themselves, having control over the threat (usually a perpetrator), dissociative responses disappear. This is understandable by conceiving dissociative responses as automatic survival strategies when confronted with severe, life endangering threat, and fight or flight is not possible. Several strategies can be tried. First, severe dissociation before the hotspot is reached is a sign to start the rescripting. Thus, severe dissociative responses constitute an exception to the rule that the rescripting should start at the hotspot. Later in treatment, when the dissociative responses have weakened, the hotspot should be reached before rescripting starts. Second, grounding techniques can be used during ImRs. For instance, patients can stand on a balance board during ImRs. Another option is patients holding a scarf (or strip of fleece) in their hand, while the therapist holds the other end.¹ When the patient starts to dissociate, the therapist gently pulls the scarf, saying "stay with the image". The scarf can also be used by patients to inform therapists that they should enter the image and start rescripting as soon as possible. In this way, control is given to the patient, which in turn will help to reduce dissociation. It is recommended to practice the use of the scarf before a memory is addressed with ImRs.

The second type of dissociation is extreme reliving and pseudo-hallucinations. With these the therapist should not stop the ImRs, but start with powerful imaginary interventions that help to establish a sense of control. For example, when patients are fully reliving severe abuse, therapists tell the patient that they are with them, and that they stand in between them and the perpetrator, and protect them, and then continue rescripting. As an example for pseudo-hallucinations, with a severe dissociative identity disorder patient who reported seeing flying sharp triangles in the therapist's room, attacking her, the therapist responded that he had two laser guns, one of them he gave to the patient (all in imagination), and that they started to shoot all the triangles out of the air.

Note that some patients with severe dissociative problems might want to address the most frightening memories early in therapy, while it might be more helpful for them to start with less overwhelming memories to establish a sense of control.

4.2. Perpetrator starts to attack therapist and/or interventions don't work in getting control over perpetrator

In the patient's imagination, perpetrators might start to physically attack the therapist, and/or initial attempts to control the perpetrator, for instance by words, don't help. When therapists are not prepared for this, they might feel overwhelmed, not knowing what to do. This leads to a reinforcement of the original representation of the perpetrator as having all the power, nobody being able to control the perpetrator. It is therefore important that the therapist wins. Therapists should have

¹ Thanks are due to Ida Shaw for suggesting this in a training.

different measures in their toolkit to address such perpetrators, some of them should be “realistic” (e.g., a taser, calling in the police, etc.) and others “magical” (e.g., shrinking the perpetrator, capturing the perpetrator in an impenetrable bubble, etc.). As discussed previously, rescripting involves a trial and error process, so different actions by the therapist might be needed before the perpetrator is controlled. Therapists should be prepared for this in a training, before they treat patients with these kind of responses.

4.3. *The victimized yet co-responsible parent*

A challenging constellation is when in a family where abuse took place by one of the parents, the other parent is also victim of abuse, and did not take effective measures to protect the child. Usually, the child starts to believe that the victimized parent has no power and feels sympathy for that parent. The complexity increases when the victimized parent uses that child to find protection or consolation, instead of the other way around (see also 4. *Parentification* in the next subparagraph). In most cases the victimized parent suffers from mental health problems, such as pathological dependency. It is important to confront this co-responsible parent in ImRs, however patients might express resistance, because the representation of that parent is of a powerless victim, and not as a person that for self-serving purposes decides to not set limits to the abuse of the child. Usually, the patient doesn't report the need to be protected by co-responsible parent, thus the therapist needs to take the initiative in the early phase of treatment (“*Before we* << *description of the need to be met* >> *I want to have a chat with your* << *co-responsible parent*>> ...”). Initial confrontation by the therapist should be rather gentle, but clearly pointing out that the child needs protection and asking why the co-responsible parent doesn't offer that, and might include the therapist to enforce treatment for the victimized parent.

4.4. *Parentification*

Another pathogenic family constellation that is not necessarily immediately clear to the patient is that of parentification, where the roles of child and parent are reversed. Examples are when an emotionally weak parent uses the child for consolation, sharing of inappropriate intimate experiences, and using the “healthy” or oldest child to take care of other (ill, disabled) children. Other examples are when the child has to intervene to prevent or resolve conflicts between parents, or has to meet high achievement expectations that are not necessarily in line with what the child prefers.

4.5. *Not wanting to close the eyes*

Patients might refuse to close the eyes. As a general rule, the reasons underlying any form of resistance should be explored in an empathic way. For example, patients might fear that somebody unexpectedly enters the door and sees them, which might be solved by the patient sitting with the back to the door. Another example was a patient treated by this author, who was distrustful and feared that the therapist would make a fool of her when she would cry. She agreed to close her eyes however, when sitting with the backs to each other. Patients can also stare at the floor, or at a blank wall, if they refuse to close their eyes, as long as they are able to visualize. In sum, try to understand what is underlying the refusal and try to find a solution.

4.6. *Patient refusing therapist to intervene*

Some patients don't want the therapist to intervene in the image. It is important to understand what underlies this resistance. For instance, they might be afraid that the perpetrator will attack the therapist when stepping in the situation. Or, they distrust other people so seriously that they don't dare to trust the therapist. Still others are afraid of being in a vulnerable position, for instance afraid or ashamed of the vulnerable

emotions that might be triggered when somebody cares for them. Still others might be extremely self-punitive, and feel they are not worth being defended. Each of these requires a different stance of the therapist, but in all cases it is recommended to try to reduce the resistance and let the therapist do the rescripting, because this means a corrective experience. Expressing understanding and empathy for the resistance, but still pointing out the need to break through it to change the underlying expectations, can be a useful strategy.

4.7. *Loyalty problems*

Patients might struggle with having their parents being confronted by the therapist, or doing that themselves in later phases of treatment, because of loyalty issues. It is important that therapists understand, and explain to patients, that there are different forms of loyalty: (1) *positive loyalty*, that is loyalty to others based on the positive things that others do for you, such as love, protection, and care; and (2) *negative loyalty*, that is enforced loyalty by intimidation and threats with punishment and terrible consequences if you are not compliant; and (3) a *mixture* of both, where both positive things are provided but there is also the threat of terrible consequences – a tactic well-known to the mafia and to sexual abusers of vulnerable children. It is the mixture that is the most complex to process in trauma work, for example the sexual abuse by father who gives attention and love, not given by the other parent, while also threatening the child that talking about the sex will have as consequence that father will be put in prison and that the child will then be guilty of that. In the rescripting, the therapist should explicitly point this out, both in confronting perpetrators – acknowledging the good things they do for the child, but also setting limits to the abuse and the threats made by the perpetrator; and in talking with the child expressing empathy for how difficult and confusing this must be for the child, and that it is good for the child to feel recognized by the love and care of the perpetrator, but that it is not okay to be sexually used and be threatened with consequences for which not the child but the perpetrator is responsible. Thus, therapists should explain the difficulties the mixed loyalty feelings create, and support the emotional struggles this creates for the child.

4.8. *Patient cannot imagine*

A small minority of people are not able to (visually) imagine. When patients report that, it should be checked whether this is really a capacity problem, or rather the result of avoidance. There might also be other interfering processes, for instance when patients cannot focus on a single image, but are flooded by different images. One option to deal with the inability to imagine (a single image) is to use drama rescripting. Here drama therapy is used to play out the new script. As multiple persons are involved, one can either use an empty chair to represent a person (for instance the perpetrator), or one can get others involved to play roles, e.g. in group therapy. Some patients cannot visualize, but are able to use other channels in imagination, for example auditory, and still profit from what is said in the rescripting.

4.9. *Neglect instead of abuse*

Many trauma-focused treatments can deal with the presence of abuse, but the absence of care is more difficult to address. One of the advantages of ImRs is that experiences of neglect can be easily dealt with. Often, there is not a clear hotspot, nor is there an episodic memory of a single experience as usually the neglect continued for years. It suffices that the patient gets a sort of general memory, for example as a child sitting alone on the bed in the bedroom, nobody else at home, feeling sad and lonely. When there is emotional activation, the therapist steps in the image to start rescripting. Neglecting caregivers can be called to account, and as ImRs is a fantasy technique, they can just be brought into the image and confronted.

4.10. Extreme neglect and distrust – rejection of emotional support

Some patients have a history of extreme neglect and are so distrustful, that they cannot (yet) tolerate physical proximity. So whereas it would be normal to sooth children by holding their hand, or holding the child in one's arms, as physical contact is the primary channel to reduce stress, these patients firmly and sometimes aggressively reject any proposal to be touched. Usually these patients have emotional intimacy problems, and their attachment has been severely damaged. Therapists should not enforce physical contact, but might try other ways such as letting the child imagine holding a pet or a cuddly toy.

4.11. ImRs can trigger a period of grief

Realizing that one's needs were not met and will never be met by the caregivers can install a period of grief. It's essential for therapists to acknowledge and normalize this grief without labelling it as pathological. Rather, they should provide compassionate support to their patients. Pushing away the realization that important needs were not met and never will be met usually comes with the costs of psychopathological symptoms and relational difficulties. So, it is important that therapists don't give in to tendencies in the patient (or in themselves) to avoid the necessary grief work, and empathically support the patient.

4.12. Revenge and aggression

There is a lively debate whether or not patients should be allowed to act out aggression and revenge in imagery rescripting. The concern is that imagining aggression might lower the barrier to act out aggressively in reality. The fact that repeated visualisation of specific acts might help to perform the specific act in reality (e.g., as used in sport psychology) feeds the concern. On the other hand, many forms of psychopathology are characterized by inhibition of anger and aggression, and the idea is that it helps to experience that it is safe to acknowledge and feel the anger and aggressive images. We have generally allowed patients to rescript in aggressive ways (e.g., kill the perpetrator), and didn't observe negative effects. On the contrary, one study found faster and deeper improvements with ImRs allowing this in anger control, experiences of internal and external anger, and hostility, compared to imaginal exposure (Arntz et al., 2007). Experimental studies among nonpatients didn't observe any negative effects either, but also didn't find additional effects compared to ImRs without revenge (Seebauer et al., 2014; Watson et al., 2016). Apart from the problem to generalize from nonpatients to patients, these nonclinical studies have the problem that they force all participants in the revenge condition to take revenge in fantasy, even when they don't experience any need for it. In clinical practice, therapists are confronted with some, but not all, patients expressing revenge needs which when acted out in rescripting can take violent forms. Thus, more research is needed, focusing on this specific subgroup of patients. Such research should also help clarifying when aggressive rescripting is contraindicated. For the time being it is recommended to not forbid patients to engage in aggressive rescripting, especially not in cases where there is no history of losing control over aggressive tendencies. If the therapist is concerned, the patient can be requested to (temporarily) stop use of alcohol and street drugs (as they might weaken inhibiting control over aggressive behaviour) and discuss any plans for actual aggressive acts with the therapist before acting them out. Lastly, therapists should not feel forced to transgress their own standards with respect to aggressive acts when they do the rescripting in the first phase of therapy, they can just tell the child, if they are asked e.g. to kill the perpetrator: "Sorry, but I'm not willing to do that. Can you think of another way to punish X?"

4.13. Extreme self-punitiveness

Sometimes patients are stuck in extreme self-punitiveness and they continue to blame themselves for the traumas, and disagree with attempts of the therapist to point out that the perpetrator was responsible, or that it was bad luck. One of the reasons for extreme self-punitiveness can be that the belief that one was responsible maintains a sense of controllability. Indeed, when people have a negative experience, they try to learn from it so that they can prevent it from happening again. If they can attribute the experience at least partially to their own behaviour, they can change that behaviour to prevent repetition of the trauma. However, sometimes one was just powerless and it is impossible to find a way to control. For some people, acknowledging the powerlessness seems almost impossible, and they rather stick with attributing the trauma to themselves. This kind of counterfactual thinking comes with the costs of ruminating and self-blame. It might help to explain this to the child in the ImRs, expressing understanding and normalizing the need to have control, but also pointing out that sadly they didn't have any possibility to control the traumas, in other words they were powerless. Support the child in the emotional responses that are triggered with this empathic confrontation.

In other cases there might be early experiences that led to these self-punitive tendencies (e.g., a parent often excessively blaming the child). Hence, memories of such experiences should be targeted with ImRs.

4.14. Problematic behaviours don't change despite successful ImRs

Sometimes problematic behaviour such as dysfunctional avoidance, problematic interpersonal behaviours, addictive behaviours, compulsive behaviours, etc. don't disappear after successful ImRs, despite that there is a clear link between the underlying trauma's/adverse experiences and the development of the problematic behaviours, which served as attempts to cope with the adverse experiences. The reason for this is that these behaviours became independent from their original cause. Such habitual coping can be quite rigid and may need additional behavioural therapy (Arntz, 2020).

5. More applications

5.1. Adulthood experiences

ImRs can be easily applied to memories of traumas or other adverse experiences in adulthood. There are two options. The first is to use the protocol for childhood memories and replace "little << patient's name >>" by "former << patient's name >>"; and "big << patient's name >>" by "current << patient's name >>". For example, "little John" becomes "former John"; etc. In the first phase of treatment, the therapist can enter the image and rescript; in the second phase the patient enters the scene from the current perspective and rescripts. The second option is to let the patient stay in the same perspective as during the traumatic/adverse experience, and let the patient rescript (remind patients that they have all the power to do what they feel should be done). The first option is probably more suitable for traumas that took place some time ago, while the second option is more suitable for recent traumas. However, no research has been done on what is the best approach.

5.2. Non-PTSD disorders

ImRs is a transdiagnostic technique, and applications have been described and empirically tested for a wide range of disorders (Kip et al., 2023; Kroener et al., 2023). However, there is an important difference between PTSD and other disorders, that might have treatment implications. When patients request treatment for PTSD, this is usually because they are haunted by explicit memories of traumas, for instance through spontaneous intrusions, nightmares, or triggered by a range of stimuli. This means that it is relatively simple to list the memories to be

addressed with ImRs, and that the patient is highly motivated to process the memories if this leads to a reduction of suffering caused by the memories. In contrast, in many other disorders the access to explicit memories that underlie the disorder can be more complex, patients not necessarily being aware of or willing to share the memories. Often, they have a range of coping strategies to prevent that the memories and the core emotions associated with them get activated. The task of the therapist is then to nevertheless try to get access to these memories, for instance using a mixture of psycho-education, motivational techniques, and empathic confrontation. The *affect bridge* technique (see above) can be useful here, in addition to exploring what early experiences lie at the root of the formation of negative schemas and/or the start of the disorder. With depression, the helplessness and motivational problems patients often display might form an additional barrier, and therapists might need to be quite directive and determined to break through this. With psychosis (not in the acute phase), ImRs has been found to be effective and safe, in several case series studies (e.g., Clarke et al., 2022; Paulik et al., 2019).

5.3. Nightmares

Nightmares can be rescripted in the same way as traumatic experiences from adulthood (see 5.1 above; Kunze et al., 2017). Another option is to use a rescripting technique originally developed for the treatment of nightmares, Image Rehearsal Therapy (IRT). IRT has a solid evidence-base (Gill et al., 2023). In IRT, patients first write down the nightmare, next write down an alternative ending, i.e. rescript (usually in which control replaces flight or passivity), and then repeatedly imagine the alternative script. If nightmares don't disappear during the course of ImRs treatment focusing on memories of traumatic/adverse experiences, they should be directly addressed with ImRs or IRT. Note that research demonstrated that rescripting nightmares is effective even when there are other major disorders (Gill et al., 2023).

5.4. Future images

Negative images of future events can be rescripted too. Especially with anxiety (disorders), rescripting of negative expectations can be helpful. When patients don't report to suffer from (intrusive) images, but nevertheless worry about the future, the therapist instructs the patient to form an image of the feared future event. Usually, the option that patients imagine to act differently without a perspective change is used. Keep in mind that the standard questions should be used (from perceptions via emotions and cognitions to needs and action tendencies), and that various scripts can be tried out.

5.5. Symbolic feelings

When patients have general dysfunctional ideas that cannot be directly related to specific experiences, one can still address them with ImRs. The patient is then asked to close the eyes and form a visual image of the idea, and subsequently change the image in a desired direction.

5.6. Pathological grief

Another application is pathological grief. Often, patients feel guilty if they do not constantly remember the deceased person, leading to constant mourning and a taboo on resuming normal life. Patients can imagine to visit the deceased person in heaven, and ask the person permission to remember them once a week with a short ceremony and to resume life. The deceased person (usually) agrees with that, and often the image of the deceased in a peaceful heaven is also comforting. Of course, patients can express and discuss other issues as well with the deceased. A broad range of ImRs applications for pathological grief is discussed by Lechner-Meichsner et al. (2024).

It should be noted however that the evidence base for non-PTSD

disorders is still limited, except for social anxiety disorder and prospective mental imagery, for which Kroener et al. (2023) found enough studies for separate meta-analyses. However, all these trials had small sample sizes. Thus, clinicians should be careful in assuming the effectiveness of ImRs when applied to other disorders than PTSD.

6. Preventing false memories

Although there is no evidence that ImRs when following the protocol induces false memories (Aleksic et al., 2024, 2025; Ganslmeier et al., 2023 ab; Hageaars & Arntz, 2012; Spinhoven et al., 2012), it is good to discuss how to prevent the formation of false memories. *First*, the rescripting phase should be clearly described as active fantasy work. This enhances the chance of appropriate source attribution of the memory of the new script, that is to the mental effort of the patients themselves (Aleksic et al., 2024). In the rationale it should be stressed that the working mechanism of ImRs is *not* replacing the original script by a new script, i.e. installing a false memory, but changing the emotional meaning of the memory, while the memory of factual details is not changed. *Second*, in the memory activation phase, therapists should refrain from suggesting details not reported by the patients. Instead, they should follow what the patients share with them. *Third*, they should not reify (aspects of) memories, and keep in mind that by nature memory is (re)constructive. When patients want to hear from the therapist whether a memory (detail) is the truth, therapists should explain that they are neither able to do so, nor that it is their task. They should explain that for the effectiveness of the technique, it doesn't make a difference, using the example of the treatment of nightmares. For instance, images of satanic sexual abuse can be treated with ImRs, but therapists should abstain from whether or not this abuse took place, or might express their doubts, and explain that horrible fantasies can develop into repeated intrusive and invalidating mental images – which can be treated with ImRs. It should be noted that we know less about the risks of the affect bridge technique with regard to inducing false memories, although I personally have never heard of patients claiming to have recovered a memory, i.e. a memory they were previously unaware of, through the affect bridge. This is not to say that patients may come to realize that specific memories triggered by the technique were related to aversive experiences which can be seen as forms of child abuse or neglect, e.g. parentification or neglect. But this is not recovering a memory, but a change in evaluation of childhood experiences. Clearly, more research is needed into whether the affect bridge can induce false memories.

7. Conclusion

New insights necessitated an update of the Arntz and Weertman (1999) protocol. This will help researchers with replication and extension studies, and clinicians to apply ImRs according to the current insights. The protocol will probably continue to develop, there are many issues on the research agenda (Hageaars et al., 2025), and new findings will inevitably lead to new updates. The research agenda includes the need for more RCTs with sufficient statistical power into the treatment of disorders other than PTSD, related to adverse (childhood) experiences, such as (persistent) depression. Moreover, we need to deepen our understanding of the working mechanisms of ImRs. More specifically, is there indeed a link with the needs that the person experiences? Does this mean that when the need for safe attachment has been frustrated, a different rescripting is indicated than when the person needs someone to stand up for them? Still another issue is, whether it is possible to definitely replace the original meaning of the experience, and if so, what the necessary conditions are, or whether the technique always relies on forming a competing memory trace. Other issues are whether the procedure can be shortened without loss of effectiveness, and how important emotional activation of the trauma memory is. While some research questions can be addressed by direct experimental (dismantling) tests (e.

g., whether or not the phase in which patients in the child perspective experience rescripting by their current self), others can only be addressed by mediation or Granger causality analysis, when it is impossible to experimentally manipulate the mechanism in isolation. See Hagenars et al. (this issue) for an extensive discussion of the research agenda.

Despite the many possible topics on the research agenda, the current protocol has been tested in a series of studies across different disorders, and hence offers an up-to-date evidence-supported approach for processing traumatic and other adverse memories. The basics of ImRs can be easily trained, and the current manuscript offers a guideline for trainers and practitioners. Thus, it is hoped that the dissemination and implementation of ImRs is facilitated with the current paper.

Video examples and explanations

Therapist rescripts

Patient rescripts

<https://www.youtube.com/watch?v=SVyGo2RjNH0>

<https://youtu.be/l2qPNirHniQ>

When Aggression Shows Up in Imagery Rescripting — What Should You Do?

<https://youtu.be/4Y-aVxqpyGI>

How to Handle Dissociation During Imagery Rescripting (Step-by-Step Guide)

<https://www.youtube.com/watch?v=JTH4KtHMthM>

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Arnoud Arntz reports receiving grants from the Netherlands Organisation for Health Research and Development and the Stichting tot steun VCVGZ, as well as receiving reimbursements for presentations, trainings, books, and chapters on imagery rescripting and related subjects. The reimbursements go to the University of Amsterdam to support research and aren't personal income.

Appendices A–F. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.brat.2025.104913>.

Data availability

No data was used for the research described in the article.

References

- Albanese, M., Liotti, M., Cornacchia, L., & Mancini, F. (2022). Nightmare rescripting: Using imagery techniques to treat sleep disturbances in post-traumatic stress disorder. *Frontiers in Psychiatry*, 13, Article 866144.
- Aleksic, M., Ehrling, T., Kunze, A., & Wolkenstein, L. (2025). Does treating emotional memories come at a price? Comparing the effects of imagery rescripting. *Eye movement desensitization and reprocessing and imaginal exposure on memory accuracy*. Ms. Submitted for publication.
- Aleksic, M., Reineck, A., Ehrling, T., & Wolkenstein, L. (2024). When does imagery rescripting become a double-edged sword? - Investigating the risk of memory distortion through imagery rescripting in an online trauma film study. *Behaviour Research and Therapy*, 174, Article 104495. <https://doi.org/10.1016/j.brat.2024.104495>
- Anderson, J. R., & Pirolli, P. L. (1984). Spread of activation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 10(4), 791–798. <https://doi.org/10.1037/0278-7393.10.4.791>
- Arntz, A. (2020). A plea for more attention to mental representation. Invited essay. *Journal of Behavior Therapy and Experimental Psychiatry*, 67, Article 101510. <https://doi.org/10.1016/j.jbtep.2019.101510>
- Arntz, A., & Jacob, G. (2017). *Schema therapy in practice: An introductory guide to the schema mode approach*. Hoboken, New Jersey: Wiley.
- Arntz, A., Tiesema, M., & Kindt, M. (2007). Treatment of PTSD: A comparison of imaginal exposure with and without imagery rescripting. *Journal of Behavior Therapy and Experimental Psychiatry*, 38, 345–370.
- Arntz, A., & van Genderen, H. (2020). *Schema therapy for borderline personality disorder* (2nd ed.). Chichester, West Sussex: Wiley.
- Arntz, A., & Weertman, A. (1999). Treatment of childhood memories; theory and practice. *Behaviour Research and Therapy*, 37(8), 715–740.
- Assmann, N., Rameekers, S. A., Schaich, A., Lee, C. W., Boterhoven de Haan, K., Rijkeboer, M. M., Arntz, A., & Fassbinder, E. (2024). Childhood-related PTSD: The role of cognitions in EMDR and imagery rescripting. *European Journal of Psychotraumatology*, 15(1), Article 2397890. <https://doi.org/10.1080/20008066.2024.2397890>
- Bosch, M., & Arntz, A. (2023). Imagery rescripting for patients with posttraumatic stress disorder: A qualitative study of patients' and therapists' perspectives about the elements of change. *Cognitive and Behavioral Practice*, 30(1), 18–34. <https://doi.org/10.1016/j.cbpra.2021.08.001>
- Boterhoven de Haan, K., Lee, C., Fassbinder, E., Van Es, S., Menninga, S., Meewisse, M., ... Arntz, A. (2020). Imagery rescripting and eye movement desensitisation and reprocessing as treatment for adults with post-traumatic stress disorder from childhood trauma: Randomised clinical trial. *British Journal of Psychiatry*, 217(5), 609–615. <https://doi.org/10.1192/bjp.2020.158>
- Brewin, C. R. (2006). Understanding cognitive behaviour therapy: A retrieval competition account. *Behaviour Research and Therapy*, 44(6), 765–784.
- Clark, D. M., Ehlers, A., Hackmann, A., McManus, F., Fennell, M., Grey, N., et al. (2006). Cognitive therapy versus exposure and applied relaxation in social phobia: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 74, 568–578.
- Clarke, R., Kelly, R., & Hardy, A. (2022). A randomised multiple baseline case series of a novel imagery rescripting protocol for intrusive trauma memories in people with psychosis. *Journal of Behavior Therapy and Experimental Psychiatry*, 75, Article 101699. <https://doi.org/10.1016/j.jbtep.2021.101699>
- Dibbets, P., & Arntz, A. (2016). Imagery rescripting: Is incorporation of the Most aversive scenes necessary? *Memory*, 24(5), 683–695. <https://doi.org/10.1080/09658211.2015.1043307>
- Dibbets, P., Poort, H., & Arntz, A. (2012). Adding imagery rescripting during extinction leads to less ABA renewal. *Journal of Behavior Therapy and Experimental Psychiatry*, 43(1), 614–624.
- Edwards, D. (2007). Restructuring implicational meaning through memory-based imagery: Some historical notes. *Journal of Behavior Therapy and Experimental Psychiatry*, 38(4), 306–316.
- Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., & Fennell, M. (2005). Cognitive therapy for posttraumatic stress disorder: Development and evaluation. *Behaviour Research and Therapy*, 43, 413–431.
- Faliagkas, L., Rao-Ruiz, P., & Kindt, M. (2018). Emotional memory expression is misleading: Delineating transitions between memory processes. *Current Opinion in Behavioral Sciences*, 19, 116–122. <https://doi.org/10.1016/j.cobeha.2017.12.018>
- Ganis, G., Thompson, W. L., & Kosslyn, S. M. (2004). Brain areas underlying visual mental imagery and visual perception: An fMRI study. *Cognitive Brain Research*, 20(2), 226–241.
- Gansmeier, M., Ehrling, T., & Wolkenstein, L. (2023a). Effects of imagery rescripting and imaginal exposure on voluntary memory. *Behaviour Research and Therapy*, 170, Article 104409. <https://doi.org/10.1016/j.brat.2023.104409>
- Gansmeier, M., Kunze, A. E., Ehrling, T., & Wolkenstein, L. (2023b). The dilemma of trauma-focused therapy: Effects of imagery rescripting on voluntary memory. *Psychological Research*, 87, 1616–1631. <https://doi.org/10.1007/s00426-022-01746-z>
- Geschwind, N., Keasberry, E., Voncken, M., Lobbstaal, J., Peters, M., Rijkeboer, M., & van Heugten-van der Kloet, D. (2024). Imagery rescripting: The value of an added positive emotion component. *Journal of Behavior Therapy and Experimental Psychiatry*, 84, Article 101958. <https://doi.org/10.1016/j.jbtep.2024.101958>
- Gill, P., Fraser, E., Tran, T. T. D., De Sena Collier, G., Jago, A., Losinno, J., & Ganci, M. (2023). Psychosocial treatments for nightmares in adults and children: A systematic review. *BMC Psychiatry*, 23(1), 283. <https://doi.org/10.1186/s12888-023-04703-1>
- Grunert, B. K., Weis, J. M., Smucker, M. R., & Christianson, H. F. (2007). Imagery rescripting and reprocessing therapy after failed prolonged exposure for post-traumatic stress disorder following industrial injury. *Journal of Behavior Therapy and Experimental Psychiatry*, 38(4), 317–328.
- Hagenars, M. A., & Arntz, A. (2012). Reduced intrusion development after post-trauma imagery rescripting: an experimental study. *Journal of Behavior Therapy and Experimental Psychiatry*, 44, 808–814. <https://doi.org/10.1016/j.jbtep.2011.09.005>
- Hagenars, M. A., Wittekind, C., Ehrling, T., Renner, F., Lechner-Meichsner, F., Engelhard, I. M., & Arntz, A. (2025). *Imagining the future: A research agenda for clinical and fundamental questions regarding imagery rescripting*. In preparation.
- Kindt, M., & Soeter, M. (2023). A brief treatment for veterans with PTSD: an open-label case series study. *Frontiers in Psychiatry*, 14, Article 1260175. <https://doi.org/10.3389/fpsyg.2023.1260175>
- Kip, A., Schoppe, L., Arntz, A., & Morina, N. (2023). Efficacy of imagery rescripting in treating mental disorders associated with aversive memories: an updated meta-analysis. *Journal of Anxiety Disorders*, 102772. <https://doi.org/10.1016/j.janxdis.2023.102772>
- Koetsier, T., Apeldoorn, J., & Nugter, A. (2024). Working mechanisms of imagery rescripting (ImRs) in adult patients with childhood-related PTSD: A pilot study. *European Journal of Psychotraumatology*, 15(1), Article 2339702. <https://doi.org/10.1080/20008066.2024.2339702>
- Kroener, J., Hack, L., Mayer, B., & Sosic-Vasic, Z. (2023). Imagery rescripting as a short intervention for symptoms associated with mental images in clinical disorders: A

- systematic review and meta-analysis. *Journal of Psychiatric Research*, 166, 49–60. <https://doi.org/10.1016/j.jpsychires.2023.09.010>
- Kunze, A. E., Arntz, A., Morina, N., Kindt, M., & Lancee, J. (2017). Efficacy of imagery rescripting and imaginal exposure for nightmares: A randomized wait-list controlled trial. *Behaviour Research and Therapy*, 97, 14–25. <https://doi.org/10.1016/j.brat.2017.06.005>
- Kunze, A. E., Lancee, J., Morina, N., Kindt, M., & Arntz, A. (2019). Mediators of change in imagery rescripting and imaginal exposure for nightmares: Evidence from a randomized wait-list controlled trial. *Behavior Therapy*, 50, 978–993. <https://doi.org/10.1016/j.beth.2019.03.003>
- Lechner-Meichsner, F., Boelen, P. A., & Hagenaars, M. A. (2024). Imagery rescripting in the treatment of prolonged grief disorder: Insights, examples, and future directions. *European Journal of Trauma & Dissociation*, 8(3), Article 100435. <https://doi.org/10.1016/j.ejtd.2024.100435>
- Lortye, S. A., Will, J. P., Marquenie, L. A., Goudriaan, A. E., Arntz, A., & de Waal, M. M. (2021). Treating posttraumatic stress disorder in substance use disorder patients with co-occurring posttraumatic stress disorder: Study protocol for a randomized controlled trial to compare the effectiveness of different types and timings of treatment. *BMC Psychiatry*, 21(442), 1–15. <https://doi.org/10.1186/s12888-021-03366-0>
- Lortye, S., Will, J. P., Marquenie, L. A., Lommerse, N. M., Faber, N., Goudriaan, A. E., Arntz, A., & de Waal, M. M. (2025). Effectiveness of treating post-traumatic stress disorder in patients with co-occurring substance use disorder with prolonged exposure, eye movement desensitization and reprocessing or imagery rescripting: A randomized controlled trial. *Addiction*, 1–14. <https://doi.org/10.1111/add.70097>
- Menninga, S.M., van Es, S.M., Boterhoven de Haan, K.L., Lee, C.W., Vermeulen, F.H., & Arntz, A. (in prep). Patients' perspectives on the effective working mechanisms in imagery rescripting and EMDR for childhood-trauma related PTSD: A qualitative study.
- Moritz, S., Ahlf-Schumacher, J., Hottenrott, B., Peter, U., Franck, S., Schnell, T., ... Jelinek, L. (2018). We cannot change the past, but we can change its meaning. A randomized controlled trial on the effects of self-help imagery rescripting on depression. *Behaviour Research and Therapy*, 104, 74–83. <https://doi.org/10.1016/j.brat.2018.02.007>
- Paulik, G., Steel, C., & Arntz, A. (2019). Imagery rescripting for the treatment of trauma in voice hearers: A case series. *Behavioural and Cognitive Psychotherapy*, 47(6), 709–725. <https://doi.org/10.1017/S1352465819000237>
- Raabe, S., Ehring, T., Marquenie, L., Arntz, A., & Kindt, M. (2022). Imagery rescripting versus STAIR plus Imagery Rescripting for PTSD related to childhood Abuse: A randomized controlled trial. *Journal of Behavior Therapy and Experimental Psychiatry*, 77, Article 101769. <https://doi.org/10.1016/j.jbtep.2022.101769>
- Rameckers, S. A., van Emmerik, A. A. P., Boterhoven-de Haan, K., Kousemaker, M., Fassbinder, E., Lee, C. W., Meewisse, M., Menninga, S., Rijkeboer, M., Schaich, A., & Arntz, A. (2024). The working mechanisms of imagery rescripting and eye movement desensitization and reprocessing. *Behaviour Research and Therapy*, 175, Article 104492. <https://doi.org/10.1016/j.brat.2024.104492>
- Rijkeboer, M.M., zur Mühlen, K., Arntz, A., Lobbstaël, J., Geschwind, N., Voncken, M., & Peters, M. (in preparation). Do the effects of imagery rescripting on a target memory generalize to related memories?.
- Seebauer, L., Froß, S., Dubaschny, L., Schönberger, M., & Jacob, G. A. (2014). Is it dangerous to fantasize revenge in imagery exercises? An experimental study. *Journal of Behavior Therapy and Experimental Psychiatry*, 45(1), 20–25.
- Smucker, M. R., Dancu, C., Foa, E. B., & Niederee, J. L. (1995b). Imagery rescripting: A new treatment for survivors of childhood sexual abuse suffering from posttraumatic stress. *Journal of Cognitive Psychotherapy*, 9(1), 3–17.
- Smucker, M. R., & Niederee, J. (1995a). Treating incest-related PTSD and pathogenic schemas through imaginal exposure and rescripting. *Cognitive and Behavioral Practice*, 2(1), 63–92.
- Spinhoven, P., Bamelis, L., Haringsma, R., Marc Molendijk, M., & Arntz, A. (2012). Consistency of reporting sexual and physical abuse during psychological treatment of personality disorder: An explorative study. *Journal of Behavior Therapy and Experimental Psychiatry*, 43, S43–S50. <https://doi.org/10.1016/j.jbtep.2011.02.005>
- Watson, H., Rapee, R., & Todorov, N. (2016). Imagery rescripting of revenge, avoidance, and forgiveness for past bullying experiences in young adults. *Cognitive Behaviour Therapy*, 45(1), 73–89.
- Wibbelink, C. J., Lee, C. W., Bachrach, N., Dominguez, S. K., Ehring, T., van Es, S. M., ... Arntz, A. (2021). The effect of twice-weekly versus once-weekly sessions of either imagery rescripting or eye movement desensitization and reprocessing for adults with PTSD from childhood trauma (IREM-Freq): A study protocol for an international randomized clinical trial. *Trials*, 22, 848. <https://doi.org/10.1186/s13063-021-05712-9>
- Wild, J., & Clark, D. M. (2011). Imagery rescripting of early traumatic memories in social phobia. *Cognitive and Behavioral Practice*, 18(4), 433–443.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: A practitioner's guide*. New York, NY: Guilford Press.