Imagery Rehearsal Therapy: Principles and Practice

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KEYWORDS

• Dreaming • Dream frequency • Dream content
• Nightmares • Trauma • Posttraumatic dreams

Many clinicians in sleep medicine, psychiatry, and psychology remain unaware of the suffering and distress caused by chronic nightmares. This lack of awareness extends to the therapeutic tools that effectively reduce or eliminate the problem. Many nonpharmacologic techniques have been proposed to treat posttraumatic stress disorder (PTSD)–related or idiopathic nightmares, including hypnosis, lucid dreaming, eye movement desensitization and reprocessing, desensitization, and imagery rehearsal therapy (IRT). However, only desensitization and IRT have been the objects of controlled studies, and IRT has received the most empirical support. This article highlights key principles behind this technique and the practice methods used to apply it by presenting an abridged and updated version of an earlier work.[1] Further resources are also available to readers interested in additional material on the clinical use of IRT.[2,3] For those patients in whom IRT may be impractical or counterproductive, pharmacotherapy (eg, prazosin, a central α-1 adrenoreceptor blocker) may be a useful alternative therapeutic option for PTSD-related nightmares.[4,5] Readers interested in pharmacologic approaches to nightmare treatment and the issue of drug-induced nightmares are referred to the article by Pagel in this issue.

CONTROLLED TREATMENT STUDIES

In the last 20 years, IRT has been tested repeatedly in various samples and has shown efficacy in reducing nightmare distress and nightmare frequency, including maintenance of changes at long-term follow-up.[6–9] IRT effectively relieves idiopathic, recurrent, and PTSD-related forms of nightmares.[6,8,10,11] In these same studies, a relatively consistent pattern emerged of decreased psychiatric distress including anxiety, depression, or PTSD symptoms, following successful nightmare treatment. Of the several hundred participants and patients, with and without PTSD, treated in research protocols with IRT, approximately 70% reported clinically meaningful improvements in nightmare frequency. However, anecdotal observations among those individuals who reported regular use of the technique for 2 to 4 weeks indicate that significant clinical change occurred in greater than 90% of patients.

Variations exist in the application of IRT[12–17] and IRT has also been adapted for use in children suffering from nighttimes.[18,19] The distinguishing features between these variations generally revolve around the degree of exposure used during treatment sessions and/or the specific application of the technique during the sessions. This article focuses on IRT as developed by Kellner, Neidhardt, Krakow, and Hollifield at the University of New Mexico School of Medicine (1988–1999) and at the Sleep & Human Health Institute (2000 to present).

THERAPEUTIC COMPONENTS OF IRT

Current Practice

IRT can be conceptualized as a 2-component therapeutic process, each of which targets

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a distinct yet overlapping problem in the nightmare sufferer. The first component is an educational/cognitive restructuring element, focused on helping the nightmare sufferer to consider their disturbing dreams as a learned sleep disorder, similar to psychophysiologic insomnia. The second component is an imagery education/training element, which teaches patients who have nightmares about the nature of human imagery and how to implement a specific set of imagery steps to decrease nightmares. IRT can be delivered individually or in groups, but for either scenario the same progression of treatment steps is offered. Follow-up time is always recommended to reassess the patient.

The first 2 sessions encourage patients to recognize the effect of nightmares on their sleep by showing them how nightmares promote learned insomnia. They are offered the view that nightmares themselves may develop as a learned behavior. The final 2 sessions engage the nightmare sufferer to learn about the human imagery system, to monitor how this system operates, to appreciate the connections between daytime imagery and dreams, and to implement the specific steps of IRT (ie, selecting a nightmare, changing the nightmare into a new dream, and rehearsing the new dream). Aspects of each of these 2 components are included in all 4 sessions, but learned sleep disorders predominates in the first 2 sessions and imagery work predominates in the last 2 sessions. An overview of the main points covered in each of these sessions is presented in **Box 1**.

Throughout the sessions, we never discount or ignore patients' perspectives on triggering incidents perceived as the cause of their nightmares. This point is especially relevant for trauma survivors with nightmares and for the meanings they associate with their disturbing dreams. Nevertheless, patients are shown how nightmares can be effectively treated without any discussion or emphasis on previous traumatic events or non–sleep-related PTSD symptoms. IRT is organized to minimize exposure therapy as an ingredient of the technique.

Box 1
Overview of the main components in each of the 4 IRT sessions [Q8]

Session 1

- Reiterating that the group will not discuss past traumatic events or traumatic content of nightmares
- Addressing treatment credibility
- How nightmares can lead to insomnia
- How nightmares pass from an acute phase to a chronic disorder
- Unsuspected benefits from having nightmares

Session 2

- Why nightmares might persist long after traumatic exposure
- What happens to symptoms of low well-being when nightmares are treated directly
- Concept of symptom substitution
- proportion of nightmares caused by trauma versus conditioning
- Principles of general imagery and pleasant imagery
- Overcoming difficulties in the use imagery

Session 3

- Broader discussion of imagery
- Imagery as a vehicle for change
- Changing one's nightmare identity

Session 4

- IRT for nightmares
- Selecting a nightmare
- Changing the nightmare any way you wish
- Rehearsing the new dream

SESSION 1
Something to Sleep On

In our largest randomized controlled trial with PTSD patients,[20] we introduced IRT by discussing how nightmares promote insomnia. This approach serves 3 purposes. First, it immediately shows the patient that our interests are truly focused on sleep-related problems and not on trauma, current negative life events, or PTSD. Second, it creates an insightful "mini-aha" experience because most trauma survivors do not generally associate their nightmares with insomnia. Third, most patients resonate with the suffering caused by poor sleep, which validates their negative sleep experiences and thus their reasons for seeking treatment of these vexing sleep disturbances.

The current version of IRT focuses on the broader concept of poor sleep quality, including a discussion of insomnia. This also sets the stage for future discussions about sleep-disordered breathing, which the authors have found in a high rate of trauma survivors with nightmares and PTSD.[21–25] The basic elements of the discussion revolve around the following points: (1) nightmares fragment sleep; (2) sleep fragmentation causes poor sleep quality; (3) poor sleep quality is a psychological and physiologic process; (4) efforts to improve sleep quality provide maximum relief of sleep problems; and (5) treating nightmares is an important step and sometimes the best first step in treating posttraumatic sleep disturbance.

Nightmare Help and Harm

Nightmares not only cause reexperiencing, but they also initiate a cascading sequence of mental and physical hyperarousal symptoms, triggered by the threats within the disturbing dreams. These arousal symptoms represent a second symptom cluster in PTSD.[26] Following arousal, patients usually search for ways of preventing this cycle from recurring, and quite naturally they seek to avoid the trigger. In this specific sleep-related instance, trauma survivors report avoiding sleep onset at bedtime or re-onset in the middle of the night with the hope of preventing more bad dreams. Although patients may not recognize sleep avoidance as a conscious process, most nightmare sufferers resonate with the schema once they hear this sequence, which again coincides with a third symptom cluster of PTSD (avoidance).

The discussion turns to the transition process through which nightmares move from an acute phase to a chronic disorder. We use a paradigm, developed by Michael Hollifield, which helps patients recognize that soon after the trauma, they made a natural and smart choice to experience nightmares. That is, disturbing dreams, by many accounts from the empirical and theoretic literature, may serve a function of emotional adaptation to emotionally salient or traumatic events.[27–30] Early after the trauma, nightmares might help to relive the experience and remember important details that might be meaningful to the survivor; the dreams might provide useful information for emotional processing, either spontaneously through dreaming, rapid eye movement sleep, or in collaboration with a therapist; and the nightmares might serve a survival function by motivating the individual to alter a behavior or some other aspect of their lifestyle to remain out of harm's way. This process leads to the closing question, ''Do these nightmares and disturbing dreams still provide any benefits, once they have lasted for so long?'' We suggest that individuals reflect on this question for the next week, but most people are quick to respond in the negative. This hopefully provides them with a hint at the possibility that nightmares can take on a life of their own, which is the major focus of the next session.

SESSION 2

Persistence of Nightmares

Patients who have nightmares usually believe bad dreams are uncontrollable and from the unconscious mind; yet, most want to know why the dreams have persisted for so long. To simply state that nightmares are a learned behavior is an intriguing and provocative statement that may be met by a full range of emotions and responses. This claim must be backed up with sufficient examples to persuade the patient to stay in treatment. When queried beyond the explanations of uncontrollability or unconscious processes, some patients suggest that nightmares persist because they are a long-term consequence of trauma (ie, the trauma is still causing nightmares). Others believe that the persistence of nightmares is caused by malfunctioning or altered neurotransmitters or a genetic predisposition. Occasionally, a patient initiating treatment will raise the possibility that nightmares are a habit or a learned behavior (some even speak the phrase ''broken record'').

However, most patients are locked into the idea that nightmares persist because trauma or other PTSD symptoms stick in their minds. This relationship is therefore examined in a few ways in an attempt to produce cognitive restructuring. First, we discuss how nightmares might ''take on a life of their own.'' Most patients relate to this idea, because they are unsure what provokes a disturbing dream on a specific night-to-night basis. We ask whether it seems possible that some type of psychotherapy could be directly targeted at the nightmares. Could the disturbing dreams now be functioning in some distinct manner, separate from the PTSD process?

We then work through a paradigm based on the question: ''If you eliminated your disturbing dreams without influencing or treating any other aspect of your mental health, what would happen to these 4 distress symptoms: anxiety, depression, somatization, and hostility?'' Most patients declare these symptoms should get worse, because nightmares must have been serving a purpose. The term ''symptom substitution'' is used regarding this potential downside of treating nightmares directly.

We organize the discussion of this process with the example of aggressive and violent nightmares and ask patients to suggest the types of emotions experienced during such dreams. Most suggest anger and rage, and a few mention fear, guilt, horror, or grief. We focus on anger and rage, and then ask what would happen to these feelings if a person were suddenly to stop having these nightmares. Again, patients usually state that because the anger and rage have not been released through the nightmare experience, these emotions must go somewhere else, which leads to further problems (eg, symptom substitution). When they are again asked what would happen

to symptoms of anxiety, depression, somatization, and hostility following direct treatment of disturbing dreams, most patients again report that these symptoms would either worsen or remain unchanged.

Learning to Have Nightmares

This phase marks a critical turning point, because we briefly but clearly describe the results from nightmare treatment research in which anxiety and other distress symptoms usually decrease after nightmares have been treated. Most patients sit back to regroup, because these results do not resonate with what they learned or believed about nightmares. Although many patients will not fully or immediately process the ramifications of this information, most participants become curious and excited about this new perspective.

In the final phase of this discussion, the patient is offered an opportunity to estimate the extent to which disturbing dreams can be attributed to trauma (0%–100%) or to habit (0%–100%) with the sum of the 2 estimates equaling 100%. Although this exercise can be performed earlier and later in the treatment, it is useful at this point because the patients have begun to experience some flux in their perceptions about why they still have nightmares.

Many telltale indicators of treatment interest or resistance arise from these estimates. Rarely, a few individuals who believe strongly that the nightmares are deeply entrenched in their trauma process will deny any habit component. Conversely, others who have completed successful psychotherapy for their traumatic exposure or other mental health problems might declare their bad dreams must be 100% habit. The former group tends to be reluctant to attempt IRT and should probably be discouraged from doing so until some shift in their views occurs in the remaining sessions. The latter group is not only ready to try IRT but these individuals may report decreases in their nightmares following this session before having learned the full IRT technique. Most individuals lie between these extremes (80–20, 50–50, or 20–80 splits are all common), but what is most interesting and informative is that nearly all of them report some shift in their perceptions toward habit recognition compared with what they would have estimated beforehand.

Imagery Skills

The discussion now focuses on imagery, which is a well-described behavioral therapy component in the treatment of many other types of medical and psychological conditions.[31] The relevant and self-explanatory elements that are discussed include (1) imagery is a natural part of mental activity, which is easily described in behavioral terms as 1 component of the mental system of thoughts, feelings, and images; (2) imagery is often the last conscious activity just before sleep onset; (3) ergo, imagery during the day may be a bridge to imagery at night (dreams); (4) imagery is not meditation but simply a daydream with bit more intention or structure as needed or desired; (5) imagery skills can be tested in brief exercises of a few minutes, and most trauma survivors have a reasonable ability to conduct such tests in groups or individually; (6) some trauma survivors are surprised at their healthy capacity to image things; and (7) most PTSD patients, except those of extreme severity, can practice pleasant imagery exercises at home without much difficulty.

Special attention is needed during this part of the session for the minority of patients with clear-cut imagery deficiencies. They may report either outright difficulty as a black or blank screen, or unpleasant images that force them to open their eyes and terminate the imagery session. All individuals are provided with behavioral tips on how to overcome unpleasant imagery (see list of common treatment obstacles in **Box 2**), but we focus on acknowledging the unpleasant image and choosing to move on to a new, preferably more pleasant or neutral image. This process is stated in the context of the thoughts, feelings, images paradigm, in which the patient appreciates the natural flux in this system. That is, the mind-body is continuously presented with new thoughts, feelings and images, and when we become aware of certain ones, we may choose to let go as we observe new ones emerging.

All patients are directed to practice pleasant imagery every day for a few minutes. The first step in this exercise is to encourage patients to recognize that imagery is a frequently experienced pathway that normal sleepers often report at sleep onset.[32,33] Conversely, nightmare sufferers may want to improve their imagery skills but without over stimulating themselves for fear of triggering more disturbing images. Although few patients report changes in their nightmares after using pleasant imagery during the ensuing week, their prospects remain high for future use of IRT because they experienced some perceived benefits from simple imagery exercises.

Imagery Practice

To practice pleasant imagery, we use 3 possible versions of standard instructions based on times of 1, 5, or 15 minutes and guided or unguided

Box 2
Commonly reported obstacles to treatment

1. Recurring nightmares

Patients seem to attach more meaning or intensity to recurring dreams and wonder whether IRT can work on these nightmares. These patients should be encouraged to avoid working with recurring dreams at first because they usually have more replay-like qualities, and therefore the patient is much more likely to associate the dream with specific traumatic experiences.

2. Multiple nightmares

Patients suffering from multiple different nightmares often imagine that IRT somehow must be used on each and every one of them. It often helps to explain that nightmares often exhibit similar characteristics or overlapping themes. Therefore, IRT can still be used by working on only 1 or 2 nightmares per week.

3. Feeling uncomfortable or anxious while considering a nightmare

Although patients may find it unpleasant to consider their nightmare, they should bear in mind that they only have to do it once. After they changed it into a new dream, they no longer have to work with the original nightmare.

4. Difficulty in reviewing a vague nightmare

Because IRT focuses on constructing a new dream, remembering even a small fragment of a nightmare is often sufficient to make the transition towards a new dream.

5. Not knowing how to change the nightmare

There is no single right way to change the nightmare to create the new dream. It is the patient's decision to change it any way they wish. If they are not satisfied with the new dream, it can be changed again.

6. Letting distractions get in the way

Because imagery work requires a safe, comfortable, and distraction-free environment, patients must do whatever is needed to find the quiet uninterrupted time necessary for the treatment. If one is pressed for time, then simply practice for a few minutes to keep the skill fresh in mind. Even 1 minute per day can prove sufficient.

7. Difficulty managing negative images

Most people can naturally image or learn to imagine pleasant scenes, but one should not hesitate to work with a therapist to build this skill, if needed. Focusing on positive images and not replaying negative ones is an important part of improving overall health, including more restful sleep, positive dream imagery, and more relaxed daytime functioning. The following 6 strategies can be used to manage unpleasant images: (1) stopping: clap hands while saying "Stop!"; (2) breathing: breathe in deeply and exhale the image away; (3) grounding: open eyes, feet on floor, focus on environment; (4) talking: talk to a friend or family member about images; (5) writing: write down images; (6) acknowledging and choosing: without accepting or denying, acknowledge the unpleasant image, then choose to return to a preferred image.

instructions, depending on the individual's needs. Some patients are nervous about imagery, whereas others have previously experienced imagery exercises. All patients start well with a 1-minute session. Most perform so well with 1 minute of imagery, no further practice is needed, and the patients can be given instructions to practice for 5 to 20 minutes per day at home. The average patient uses an imagery session of between 5 and 10 minutes.

The most prevalent barrier includes either difficulty imaging or unpleasant images. The discussion turns to managing unpleasant images or how to promote greater ease in generating pleasant images. The latter issue is dispatched by stating that most people require time to learn how to comfortably generate pleasant images, but the interval is usually measured in weeks for most nightmare sufferers, compared with months for patients with more complex PTSD. Unpleasant imagery is a more difficult issue. Once trauma survivors recognize the potential importance of imagery in the mind's eye, most will find it straightforward to acknowledge unpleasant images and then choose to let them go as new images emerge.

A rare or occasional patient will clearly demonstrate they are stuck at this point in the process. These individuals often fit with the pattern

described in recent research[34–36] in which nightmares are reportedly identical to the patients' traumatic experience. As such, they tend to obsess about this relationship and often declare they cannot image anything because it will only bring up the memory of the trauma or the nightmare, which to them feels like the same thing. We caution these patients to take a step back from the program and work with their therapist on general imagery exercises if they are comfortable doing so.

Imagery Safeguards

The session concludes with the following points and reminders: (1) PTSD patients may need to stop any type of therapy that stimulates unpleasant imagery; (2) activation of the imagery system must proceed slowly and gently; (3) know your limits and know how to overcome unpleasant images; (4) learn to appreciate that some unpleasant images emerge through learned behaviors (like nightmares), as opposed to viewing all negative imagery as a direct result of stress-related processes. The final instruction is to repeat the importance of practicing pleasant imagery by selecting pleasant experiences or scenarios from one's life.

SESSION 3
Imagery in the Process of Change

The third session begins with a broader discussion of imagery to explain that many people suffering from disturbing dreams develop an imbalance in their thoughts, feelings, imagery system. As a common example, a person might think too much and spend less time with their feelings and images because the latter are more unpleasant and less manageable. A constant barrage of nightmares or disturbing waking images (eg, traumatic memories) could easily lead someone to think too much as a natural self-protective mechanism. This imbalance, however, diminishes or distorts the nightmare sufferer's natural capacity to work with his or her imagery system. Our first exercise in this third session is to show nightmare patients how important and useful imagery is in everyday life and particularly in the process of change.

The exercise begins with each participant recalling a change in his or her life that took place in the past year. The most common examples include moving to a new home or apartment, starting a new relationship, ending a relationship, entering psychotherapy, starting a new educational program, and beginning a new job. We then discuss the role of imagery involved in the decision-making process. Then, 3 questions are asked. In the case of someone having changed employment, the questions would be: (1) when did you actually switch jobs; (2) when did you first think about switching jobs; and (3) when did you first picture the possibility of switching jobs?

In nearly every example provided, patients remark that each of these dates preceded the last one, such that they can recall that a picture may have formed in their mind about the possibility of switching jobs long before they spent time actively thinking about this occurrence. This point is impressive. Not only do the patients learn to appreciate that imagery is a useful and valuable tool in the process of change, but they are now introduced to the concept of rehearsal. Specifically, imagery rehearsal is something that humans engage in all the time as they practice anticipated behaviors or experiences by imagining themselves in various new or old situations to see how they could behave.

Rehearsing Change with Imagery

With this backdrop, each person is asked to select something in their life they would wish to change, but specific directions are given to choose something positive or neutral to work on that will not elicit unpleasant feelings. The most commonly used example is remodeling or rearranging a particular room in the home. Each individual then undergoes a 5- to 10-minute exercise in which they picture any components they wish to reflect on in their suggested change. These imagery experiences are subsequently discussed, and the images are almost always described as positive or pleasant. Even though the exercise is conducted in the spirit of learning imagery rehearsal in the context of change, the patients are cautioned that the exercise is not conducted to foster change on whatever theme was selected. Nonetheless, routinely 10% to 50% of individuals will report the following week that they made some effort to change something related to what they had rehearsed (eg, rearranging furniture).

Nightmare Sufferer Identity

This positive exercise extends the discussion of change in the context of imagery processes and how one might see oneself before and after change. The term used here is "identity," and the discussion revolves around how nightmare sufferers usually see themselves as intractably afflicted. They have developed a nightmare sufferer identity. The point illustrates how this identity often becomes entrenched in ways not dissimilar to cigarette

smokers who see themselves as smokers and incapable of changing this behavior. In discussing the problem of quitting smoking, patients accept the idea that a major barrier to change is holding onto the belief that one's identity is fixed, as in once a smoker, always a smoker. Therefore, behavioral change often benefits by finding a way to imagine the potential for a new identity (eg, a nonsmoker). With time, this type of imagery rehearsal can help smokers change identities because they have rehearsed it sufficiently to become more comfortable with their new ways of behaving.

To some, this process can provoke anxiety or fear because changing an identity might feel like they are killing off a part of themselves. Yet changes occur all the time, and through imagery practice, consciously or otherwise, humans naturally learn to appreciate these changes in identity and develop new behavioral patterns. As much as these nightmare sufferers would like to change to the identity of a good dreamer, we spend time discussing (1) how entrenched the nightmare sufferer identity might be, (2) how it would seem unfamiliar to them to not experience disturbing dreams, and (3) how imagery can help them transition to a new identity that is no longer plagued by nightmares.

The whole lesson eventually funnels into a final question: "Are you ready to let go of your nightmares?" We quickly point out that no right or wrong answer is required of such a question, but that it might be worth reflecting on in light of how one gauges one's own identity as a nightmare sufferer. Assessing how deeply the nightmare identity might be entrenched proves useful to most nightmare sufferers before they implement the full IRT technique.

The session ends on an upbeat note by asking the participants to spend the week reflecting on the possibility of becoming a dreamer with a capacity to experience more pleasant dreams instead of nightmares. They are also instructed to continue imagery practice, either their original version of pleasant imagery or a continuation of the imagery as a vehicle for the change concept developed in this session.

SESSION 4

The fourth session uses Neidhardt's variation to "change the nightmare anyway you wish,"[8,37] but we no longer suggest that the patient write down the old nightmare unless such a process is helpful in learning the technique. The full instructions involve the following: (1) select a disturbing dream, preferably 1 of lesser intensity and not a reenactment of a trauma; (2) change this nightmare anyway you wish; (3) rehearse this new dream a few minutes each day at a time of your choosing; and (4) continue these instructions every day and consider working with another nightmare to change it into a new dream every 3 to 7 days, such that you only rehearse 1 or 2 new dreams each week.[10]

Selecting a Nightmare

How patients select their nightmares for IRT will often present clues as to how they will embrace or avoid IRT and whether or not they view it as a credible therapy. Using a crawl before you walk metaphor, we explain that IRT may have potential efficacy for all types of nightmares, but it is important to learn the technique first on disturbing dreams of lesser emotional intensity. Our goal is to trigger minimal or no emotional response as the objective is not to expose patients to traumatic content but rather to have them select a bad dream so they have material with which to learn the process of IRT. Using a replicative-trauma nightmare is therefore discouraged during first efforts.

Patients who follow the instructions to select a less threatening nightmare often find it easy to image a changed version and almost invariably find the technique palatable. In more than half of the patients with whom we have worked, it seems apparent within 15 to 30 seconds that the instruction to change the nightmare was a welcome idea, which they had probably wondered about on their own. These individuals write down a new dream immediately for use in the rehearsal process, almost as if permission to change their dreams had finally been granted.

Changing the Nightmare

The instruction to change the nightmare sometimes meets with mild resistance primarily because of confusion with the instruction. Rarely, a patient who has nightmares may resist by declaring that changing the dream "can't be done because that's what happened to me" or "that was my dream, how can I change it?" The changes can take many forms; we are not aware of any particular change schema that is more efficacious than others, although in our experience we suspect that Neidhardt's model[8,37] to "change it anyway that feels right to you" is more powerful than narrowing the scope by suggesting to change the nightmare to something positive or triumphal. We speculate that Neidhardt's broader instruction leaves open a psychological window through which the patient may intuitively glimpse multilayered solutions to other emotional conflicts in

addition to or arguably as part of their nightmare resolution. For these reasons, we remain highly suspect of techniques in which therapists or other members of a group treatment seek to impose or just suggest changes in the dream content. In our view, such an approach seems less empowering to the individual. Some patients change minutiae in the dream, whereas others develop a brand new story. In our view, it would not be surprising if an important active ingredient of IRT were shown to be the ability to reconnect with the natural human capacity to manipulate and change imagery in the mind's eye, beyond the specific changes of content within the new dreams.

Rehearsing the Nightmare

The most important instruction to give before rehearsing the dream is to remind patients they will now rehearse the new dream only and not the nightmare. In other words, we maintain our efforts at avoiding exposure and encourage patients to reinvigorate their natural capacity for imagery. This part of the session can last 5 to 15 minutes depending on the patient's comfort level and capacity for imagery. Before initiating actual IRT for nightmare treatment, patients are also reinforced with imagery training as described in session 3 to prepare them to intervene if unpleasant images arise.

Practice

Patients are informed that they are learning how to activate their imagery system in a specific way to take control of their nightmares. The early emphasis should thus be on understanding what it means to activate one's imagery system and gaining some control and comfort with that process. In time, more nightmares can be targeted if necessary, but each nightmare does not have to be subjected to imagery because IRT seems to jump start a natural human healing system that was previously dormant. In other words, working on just a few disturbing dreams and turning them into new dreams has a ripple effect on the treatment of other nightmares. The actual amount of time needed to work on any particular nightmare is variable and unpredictable, and obsessing about a particular bad dream may prove counterproductive early in treatment. Then again, we know of some patients who enjoyed and benefited from working on just 1 or 2 new dreams by constantly changing them for several months before considering any other nightmares, if any persisted. Patients learn that the program's most important step is to learn the technique and gain control and comfort with it and this may explain these particular choices.

At the conclusion of this session, 2 important ideas are developed to promote positive practice. First, we revisit the discussion on the relationship between dreams and imagery and talk in terms of a metamorphosis in which nightmares spontaneously change in some patients. In this view, nightmares can change early after their onset, and close inspection of the traumatic dream's content almost invariably demonstrates various alterations in detail or changes in the overall picture. This point is especially important for those patients who are stuck with the belief that their nightmares are a perfect replay of a specific event. If, over time, they can appreciate the possibility that their replays already contain altered elements, they have a reasonable chance of using IRT.

We then explain that most people with nightmares following trauma eventually stop having them. One possibility for this shift is that over a few weeks to a few months, the nightmares gradually keep changing as if the dreams themselves were working out some aspect of the emotional turmoil generated by the trauma.[27] It may therefore be natural for nightmares to surface and then gradually change into dreams that become increasingly less disturbing. The use of IRT may reflect a system similar to the natural process of mental imagery already in use in people's minds. This natural process, however, was not activated in an effective manner in these trauma patients, but IRT can now start that process.

The session is then brought to a close by reiterating the importance of working on only 1 or 2 bad dreams each week given the immediate goal of improving one's imagery system. If IRT is a naturally occurring process within the human mind, then we can argue that once the corrupted software that damaged this innate operating system is replaced, then the individual's original system can resume functioning normally. As this process unfolds, the readoption of one's natural imagery capacity may partly account for how or why patients do not need to work on each and every nightmare they experience for the treatment to be effective.

SUMMARY AND FUTURE DIRECTIONS

IRT is a proven and cost-effective therapy for chronic traumatic and idiopathic nightmares. Reduction in daytime distress following the use of IRT is consistent with the view that the direct treatment of nightmares is a feasible and worthwhile clinical approach. Clinicians' appreciation

for the 2 primary therapeutic elements described in this paper should aid them in their regular use of IRT with patients experiencing nightmares. In contrast to the more rigid application of IRT in research trials, treatments in clinical settings can be provided in groups and individually and the technique shortened or lengthened to accommodate the complexity and severity of the nightmare disorder. Similarly, given the importance of the imagery component in IRT for nightmares, individuals with relatively healthy or more readily accessible imagery systems may benefit from a shortened treatment delivered on an individual or even self-help basis. Some resources have been developed for such purposes.[38,39]

IRT is an effective and versatile treatment that can alleviate various forms of nightmares and associated distress. The proper reactivation of a patient's dysfunctional imagery system and associated increase in perceived mastery over negative dream elements seem to play a vital role in nightmare reduction.

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