

By Laurie F. Kubes, DNP, RN, APRN, CNP

Imagery for Self-Healing and Integrative Nursing Practice

A simple, often beneficial intervention—with little cost or risk.

OVERVIEW: Imagery has been used as a healing practice since ancient times. Its reemergence in modern medicine began in the second half of the 20th century, when research suggested that imagery could help reduce patients' pain and anxiety and improve their quality of life and outlook on their illness. While current evidence is insufficient to support claims that imagery affects disease progression, research suggests that this method of inducing relaxation encourages patients' healing process and gives them a greater sense of autonomy in relation to disease and its management. Because imagery is noninvasive, the risks associated with its use are minimal and it is now widely used in integrative nursing. The author discusses imagery's uses and benefits, as well as the potential pitfalls in its use, and describes an imagery technique she has found effective in practice, providing a sample script and explaining how the technique might be used to help patients in various settings.

Keywords: complementary therapies, healing, imagery, integrative nursing, self-healing

Imagine you're caring for James Mitchell, a 69-year-old man with type 2 diabetes who was admitted for a below-the-knee amputation. (This case is a composite based on my clinical experience.) Recognizing the challenges Mr. Mitchell faces as he recovers from this traumatic life event, you ask how he's feeling. He tells you he's angry about the loss of his leg. When you ask if there's anything in particular that has helped him get through challenging periods in the past, he explains that one of his greatest joys has been going hunting with his dog. "But even with a prosthesis," he continues, "I'm afraid those days are

over." You listen with empathy as Mr. Mitchell expresses his sense of loss. Would you feel confident in guiding him in the use of imagery in order to encourage his physical and emotional healing process?

The desire to advance health and healing is at the heart of what we do every day as nurses. In our quest to keep up with the latest medical advances, we often forget that the healing art of imagery is available to each of us. Various forms of imagery have been used for healing since ancient times.¹ The use of imagery began to reemerge in modern medicine during the last few decades of the 20th century, when a number

of clinicians began to experiment with and evaluate its therapeutic effects in different patient populations, particularly those with cancer. While poor study design and inconsistent terminology have hindered some imagery research, the benefits of imagery for pain control, overall well-being, positive outlook, and symptom management are widely accepted.

Koithan has defined integrative nursing as “a way of being-knowing-doing that advances the health and well-being of persons, families, and communities through caring/healing relationships.”² In our search for health and healing—for ourselves, our loved ones, and our patients—imagery offers us a simple, inexpensive, self-directed tool that is readily available to each of us and has been receiving increasing acknowledgement from state boards of nursing throughout the country (see *Nurse Practice Act Implications*³).

This article discusses the physiologic and psychological effects of imagery, as well as potential mechanisms of action, uses, benefits, and possible risks. It describes an imagery technique that I have found effective, provides a sample script for focused imagery, and explains how the technique might be used to help patients in a variety of settings.

THE HEALING EFFECTS OF IMAGERY

Schaub and Dossey define clinical imagery as “the conscious use of the power of the imagination with the intention of activating physiological, psychological, or spiritual healing.”⁴ Vivid personal mental images are at the core of imagery’s healing effect. As Elliott explains, the image-making process is a heightened state of awareness in which images can be “felt, heard, smelled, and even tasted.”⁵ When we direct our thoughts and intentions toward such mental images, we stimulate the same areas of the brain that respond to perception.⁶ Naparstek describes this as the first guiding principle of imagery: “Our bodies don’t discriminate between sensory images and what we call reality.”⁷ Neuropsychological studies lend support to Naparstek’s ideas, having shown that mental imagery relies on many of the same neural mechanisms as perception and plays an important role in several aspects of learning, memory, action, information processing, and reasoning.⁸

As with perception, imagery may elicit numerous bodily responses as it stimulates various areas of the brain. Images that evoke fear and distress may initiate a stress response, whereas images that elicit calm and joy may produce a relaxation response. To experience this phenomenon firsthand, try noting the physical responses you experience as you engage all of your senses while picturing yourself lying on an



ocean beach with sand between your toes, the sun warming your skin, the soothing sound of waves lapping the shore, and the smell and taste of salt in the air. You may find yourself smiling, breathing deeply, feeling comfortably relaxed. By contrast, if you recall an argument with a colleague—the words spoken, the tone of voice, the gestures, the feeling of your heart racing—your body may tense with anger. In both cases, the physical and psychological effects are tangible, a result of the emotions associated with the image and bodily responses.

Imagery is commonly used to induce a relaxation response, thereby lowering blood pressure, reducing respiratory rate, and lessening anxiety. In studies of relaxation responses induced through meditative practices, the physiologic effects were theorized to result from an interplay between the sympathetic (fight or flight) and parasympathetic (rest and digest) branches of the autonomic nervous system.⁹ This explanation is supported by more recent studies using functional magnetic resonance imaging (fMRI), which indicate that the neural structures activated when a relaxation response is elicited through meditative practice are those involved in attention and control of the autonomic nervous system.¹⁰ Early research demonstrated that, through meditation, study participants could achieve a wakeful hypometabolic state in which oxygen consumption and respiratory rate were reduced, while alpha waves viewed on electroencephalogram increased in intensity.¹¹ Further study in this area revealed that introducing the relaxation response regularly (for

example twice daily for 20 to 30 minutes over a period of 20 weeks) through similar meditative practices significantly reduced blood pressure in people requiring pharmacologic antihypertensive treatment.⁹

More recently, a randomized controlled study of 26 patients with chronic obstructive pulmonary disease found that oxygen saturation levels were significantly higher in the 13 patients assigned to receive a guided imagery intervention than in the 13 assigned to quiet rest.¹² A pilot study investigating the effects of a 20-minute imagery-plus-music protocol on dyspnea in 53 patients with advanced cancer found that the intervention significantly increased end-tidal carbon dioxide levels, while significantly reducing heart rate, respiratory rate, and patient report of dyspnea.¹³ In a 2013 pilot study, relaxation induced through guided imagery delivered by way of a 20-minute audio recording significantly reduced mean stress levels and systolic blood pressure in the 19 hospitalized pregnant participants.¹⁴ As with meditation, when we regularly engage in an imagery practice that elicits the relaxation response, we can retrain our bodies to minimize the adverse effects of stress.

USES AND BENEFITS

Many studies on the use of imagery across populations and diagnostic categories have reported reduced pain and anxiety, decreased direct pharmacy costs, shorter lengths of stay, and fewer medical visits.¹⁵⁻¹⁷ In two systematic reviews of randomized controlled trials that assessed the effectiveness of imagery as a treatment for pain, the authors reported that the majority of trials

found significantly greater pain reduction in the imagery intervention groups than in the control groups.^{18,19} The authors concluded, however, that while the findings were encouraging, there is a need for more rigorous, randomized trials using adequate sample sizes, validated outcome measures, and standardized interventions that can be replicated independently.

In cancer care, imagery and relaxation techniques are easily learned, and studies suggest that they may be effective in reducing such adverse treatment effects as anxiety and both anticipatory and postchemotherapy nausea and vomiting.²⁰ In addition, relaxation and guided imagery were shown in one study to have potential immunomodulatory effects, significantly increasing the number of CD3⁺ (mature) T lymphocytes following chemotherapy and radiotherapy as well as the number of CD25⁺ (activated) T lymphocytes following radiotherapy in patients with large or locally advanced breast cancer.²¹

A meta-analysis of 10 guided imagery intervention studies of varying durations, conducted on patients with depressed white blood cell counts, HIV diagnoses, fibromyalgia, exam time anxiety, breast cancer, multiple sclerosis, and poststroke effects, found that the effect size of this intervention increased over the first five to seven weeks, though a reduced effect size at 18 weeks was seen in one study.²² The effects (outcome measures) varied among the 10 studies analyzed, and some studies measured multiple effects, which included white blood cell count, quality of life, pain relief, natural killer cell count, various T-lymphocyte counts, immune assays, anxiety levels, motor recovery, coping levels, and other variables.

AN IMAGERY TECHNIQUE

As a healing technique, imagery may be helpful both in everyday situations and in challenging life circumstances. It is often a major life event (positive or negative) that triggers a person's initial use of imagery because such events provide opportunities to evaluate our need for self-healing and give us pause to reflect on what is important to us. At times such as these, the goal of imagery may be to attach a personal meaning to the event and create positive feelings through an image. As we move through the event, and difficult life choices arise, we may choose to establish a consistent imagery practice with the goal of recognizing the mind-body connection and the healing effects of imagery. Finally, through reflection on our imagery experiences, our health, and our relationships, we increase our personal understanding of the event and our potential for self-healing and a more meaningful life (see Figure 1).

Eliciting relaxation has been identified as a prerequisite for effective use of clinical imagery.²³ The practice of imagery often begins in a quiet environment, with a relaxation technique that involves taking several deep, diaphragmatic breaths and allowing the body to relax

Nurse Practice Act Implications

The use of imagery in clinical nursing practice has not been addressed consistently in the nurse practice acts of all 50 states. It may be that integrative therapies, such as imagery, are viewed as independent nursing interventions in that they are noninvasive and require no use of regulated procedures or pharmaceuticals. The nurse's role in imagery is seen as consistent with the fundamental nursing roles of providing education and empowering patients.

However, as the use of integrative therapies continues to expand in all health care settings, more state boards of nursing are adopting guidelines that address the use of holistic practices. At press time, 12 state boards of nursing referred to holistic nursing in their nurse practice acts, with seven addressing the use of "all Complementary/Alternative therapies."³ A rising need to ensure that nursing can meet consumer demand for integrative services and do so with skill and safety may be driving this movement toward clarification. For current information and a state-by-state summary on the topic, go to the American Holistic Nurses Association Web site at www.ahn.org/Resources/Publications/State-Practice-Acts.

and quiet the mind (for the main elements in the practice of imagery, see Table 1). Once relaxed, those practicing imagery or guiding others in its use intentionally focus their or others' affirmative thoughts on a personally meaningful image that engages the senses of sight, hearing, taste, touch, and smell, thereby creating vivid thoughts and evoking positive emotions.

Practitioners are encouraged to take notice of physical and emotional effects. Reflecting on these effects may enhance meaning and benefit. With repeated use, the person practicing imagery may respond more readily—with a more relaxed body, a more focused mind, and a more resilient outlook. Several online sources can be helpful in integrating preparatory actions and imagery interventions into self-care, the care of others, and integrative nursing practice (see *Online Imagery Resources*).

USING IMAGERY IN AN INTEGRATIVE NURSING PRACTICE

To return to our opening scenario, if you wished to use imagery to lessen Mr. Mitchell's distress, you could broach the subject prior to his scheduled dressing change. Aware that Mr. Mitchell is eager to decrease his use of pain medication, you might suggest imagery as a means of enhancing the medication's analgesic effects while providing a long-term, nonpharmacologic option for addressing both the physical discomfort and the psychological distress associated with recovery. You could explain what imagery is and let him know that it doesn't hurt, costs nothing, and may be a tool he can use on his own in the future to help with sleep, pain, and emotional coping. Mr. Mitchell says he'd like to give it a try.

You tell Mr. Mitchell that identifying an image or situation that is meaningful to him may help him to identify his personal strengths and enhance his recovery. To assist him, you encourage him to reflect on the love he feels for his dog and his enjoyment of hunting. Feeling hopeful that imagery will help in his healing, Mr. Mitchell suggests that you give him only half of his prescribed pain medication. You agree to do so, reassuring him that you can provide more if he later feels he needs the full dose. After administering his medication, you begin a guided imagery session, using an imagery script (see *A Focused Imagery Script*). As you guide him, you notice that Mr. Mitchell sinks into his bed, visibly relaxing. Minutes later, after completing the imagery script, you see that Mr. Mitchell is resting quietly and you exit the room.

Later, you check in with Mr. Mitchell. With some enthusiasm, he describes his image in great detail. On a beautiful fall day, he and his dog were hunting pheasants in a cornfield. He describes the fall colors and the sight of his dog running through the field. He says he felt the sun on his face and the cool, fall breeze in the air. He could smell the scents of corn and soil and taste the warm coffee in his thermos. He could hear the distant sounds of gunshots. He felt relaxed

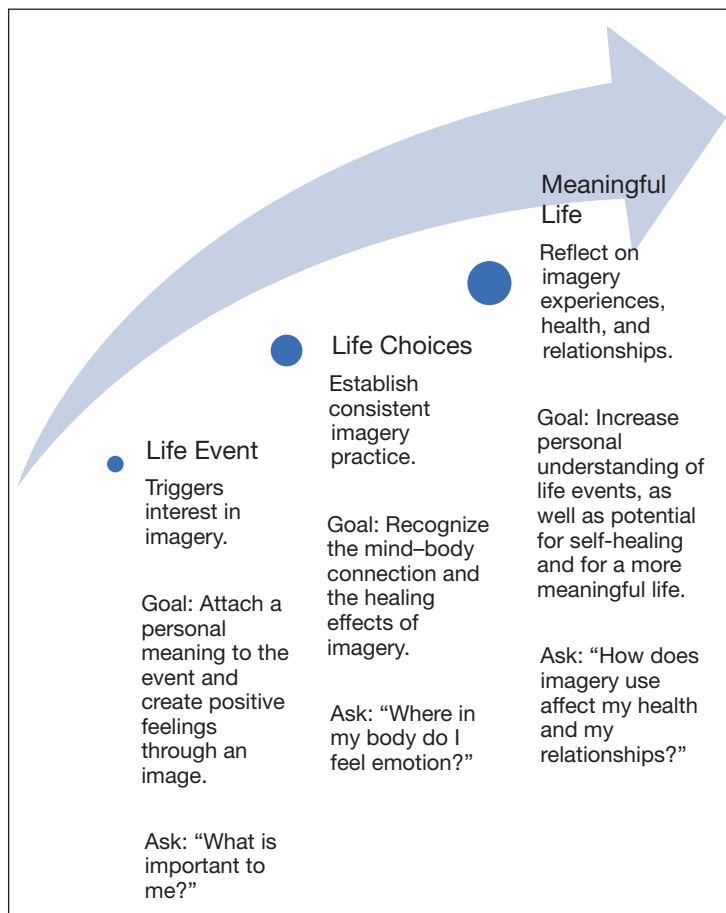


Figure 1. The Reasons for Practicing Imagery and the Goals of Practice Often Evolve Over Time

and strong. He had been surprised to wake some time later, aware that his pain and anger had lessened. He had enjoyed "hunting" in his mind and felt a renewed hope that he might eventually return to hunting in reality.

This clinical scenario depicts the physical, psychological, and emotional benefits of imagery. Using a simple technique that is readily incorporated into clinical care, an integrative nurse can offer patients like Mr. Mitchell an additional option in their journey toward healing and a meaningful life.

MINIMAL RISKS, PLUS A FEW CAVEATS

Because imagery is noninvasive and relies on the person's own natural healing capacities, risks associated with its use are minimal. According to the National Center for Complementary and Integrative Health (formerly the National Center for Complementary and Alternative Medicine), part of the National Institutes of Health, relaxation techniques, including imagery, are generally safe.²⁴ Imagery practice, however, should be undertaken with the following caveats:

Table 1. Core Elements of Clinical Imagery

Preparatory Actions and Interventions	Rationale
Inspire appreciation of the human potential for healing by educating the patient on the body's natural healing capacity and imagery's healing effects.	Helps the patient establish a connection to the physical, psychological, and spiritual effects of imagery
Assess the patient for potential risks. For example, is there a history of trauma or mental illness, of difficulty relaxing or concentrating?	May point to a need for modifications such as extra support, education, or use of medication to facilitate relaxation and concentration
Assess the patient's imagery potential. <ul style="list-style-type: none"> • Ask the patient to identify an image. (Sample prompt: "What is important to you?") • Encourage body awareness. (Sample prompt: "Where do you feel emotion?") • Help patient access "inner wisdom." (Sample prompt: "What has helped you the most during past challenges?") 	<ul style="list-style-type: none"> • Creates personal meaning • Connects the physical and the emotional • Connects remote wisdom and knowledge to the present moment
Use an imagery technique you're comfortable with—for example, a focused imagery script, such as the script included in this article, or one of the many free podcasts available on the Kaiser Permanente Web site's Relax and Listen page (http://bit.ly/1gSHZv5).	There are several simple, effective tools, applicable in all settings.
Use a quiet environment (either actual or created through relaxation).	Improves learning potential
Encourage relaxation of body and mind through diaphragmatic breathing.	Makes healing possible and is readily accessible
Make a connection to a personal image by referring back to answers to the "imagery potential" questions above.	Makes image meaningful and promotes self-awareness
Engage all senses in the image: sight, hearing, taste, touch, smell ("What do you see? Hear? Taste? Feel? Smell?").	Engages all sensory areas of the brain, creating corresponding physical and emotional effects
Nurture body–mind–spirit connections by reflecting on the imagery experiences.	Enhances personal meaning and identifies areas of strength and growth
Engage in regular use of imagery to promote stronger and more immediate effects from imagery.	Unlocks unconscious healing and retrains the mind and body to respond positively under stress

- Do not use imagery as a stand-alone treatment when conventional medical treatment is recommended.
- Be cautious using imagery with patients who have a history of abuse, trauma, or such mental illnesses as psychosis or dissociative disorder, which can make it difficult to distinguish objective reality from subjective experience.
- Relaxation-induced anxiety, defined as a "sudden increase in anxiety during deep relaxation that can range from mild to moderate intensity and that can approach the level of a minor panic episode,"²⁵ may occur in a small subset of individuals.²⁶ In one

small study, asthma and generalized anxiety were identified as predictors.²⁷ Before assisting patients in any relaxation activity, assess them for related worries.

- It is unsafe to engage in the use of imagery while operating a motor vehicle.
- Some people who find imagery helpful may wrongly assume that they caused their illness through "mind–body error or neglect."²⁶ It's important for such people to understand that their thoughts or emotions, or their prior lack of participation in various mind–body practices, neither caused nor exacerbated their illness and that

their healing capacity will in no way be diminished if they are unable or unwilling to participate in imagery now or in the future.

- Expectations about the effects of using imagery may hinder outcomes. Expectations include the fears that nothing will happen, too much will happen, or imagery will not be performed correctly.⁴
- When helping patients use imagery, it is important to
 - ensure access to appropriate medical care.
 - introduce ideas about the healing qualities of imagery before beginning imagery work.
 - assess their potential for intense emotional reactions and, if necessary, collaborate with colleagues trained in managing such reactions.

You can also reassure patients that the use of imagery will not take away their natural emotional defenses. As Schaub and Dossey point out, when suggested images evoke overwhelming emotions, patients' innate wisdom allows them to ignore the images, change the images to ones that elicit more manageable emotions, or stop the process.⁴

GETTING STARTED WITH IMAGERY

For self-care. Holistic self-care programs for health care professionals have been shown to reduce stress while improving coping, overall functioning, and well-being. In a study of one such program, which included the practice of guided imagery, participants reported significantly lower levels of stress and significantly greater coping self-efficacy after eight weeks of training and at one-year follow-up.²⁸ As might be expected, the personal use of integrative therapies by nurses is significantly correlated with greater knowledge of and use of such modalities in professional practice.²⁹

To start imagery work, you need an open mind, basic knowledge of the practice, and time to dedicate to its mastery. To establish the habit of using imagery, Naparstek recommends setting a regular time for practice, such as first thing in the morning or just before bed.⁷ Set the stage for relaxation by selecting a quiet space, free of interruptions, and positioning yourself comfortably. Select a method that works well for you (using an audio recording or a self-guided script), and work with images that are meaningful to you and relevant to current personal challenges. Consider establishing a group of like-minded colleagues or friends with whom you can meet periodically, either in person or through social media, to discuss imagery challenges and experiences. Above all, take time to reflect on your practice and its benefits, both physical and psychological. You might also consider keeping a journal to record your experiences and monitor your progress.²³

In acute care, imagery is a readily accessible tool nurses can use with no prior planning.⁴ Challenges often include time constraints and the need for staff education to ensure safe and skillful use. To minimize time required for training, skilled practitioners may

offer five-to-10-minute in-service sessions during scheduled staff meetings or at times known to be less busy on the unit. Creating unit or facility support groups for sharing patient and staff experiences with imagery may improve and increase its use. Nurses may consider creating an imagery poster board for their unit or maintaining a unit journal in which they can document relevant experiences. Results of a randomized controlled case series showed that a 10-minute, tape-recorded guided imagery intervention, provided three times a week for six weeks following usual physical and occupational therapy and practiced twice a week at home, appreciably improved functional outcomes in patients following acute stroke, compared with a control group that received physical and occupational therapy alone.³⁰

In a community setting, imagery is easily taught to patients and can be used to promote self-control, increase self-efficacy, and reduce the adverse effects of medications. In a study that randomly assigned children diagnosed with chronic functional abdominal pain to receive two months of usual care with or without home-based imagery therapy, intention-to-treat analyses showed that significantly more parents whose children were in the guided imagery group reported a response to treatment, and reduction in pain was maintained at six-month follow-up.¹⁷ In postintervention interviews, parents and children reported that they found the imagery therapy to be enjoyable, self-explanatory, and easy to use. Most children listened to the guided imagery recordings more often than instructed and required no parental help or reminders.

With special populations. With elderly patients for whom loss of independence and control over their lives are frequent challenges, imagery may increase self-efficacy as well as good health because the practice can help patients feel empowered and be more engaged in

Online Imagery Resources

- American Holistic Nurses Association (<http://ahna.org>) promotes education in all aspects of holistic caring and healing.
- Imagery International (<http://imageryinternational.org>) provides community and support for the use of imagery for healing.
- Kaiser Permanente's Relax and Listen page (<http://bit.ly/1gSHZv5>) features health videos and podcasts.
- National Center for Complementary and Integrative Health (<https://nccih.nih.gov>) provides information about research, grants, funding, training, and news related to integrative health practices.

A Focused Imagery Script^{a, b}

Take a moment to get settled into a comfortable position, relaxing your gaze or closing your eyes if that feels right . . . Now begin with several deep breaths . . . Allow the breath to relax the body, calm the mind, and engage the spirit.

As you breathe in, soften your belly, allowing it to expand as it fills with air . . . As you exhale, release the air, allowing the belly to deflate . . . Take inventory of your body. Do you feel tension, pain, or anxiety anywhere? . . . If so, inhale and send your breath there, allowing it to cleanse the area, releasing the tension, pain, and anxiety as you exhale . . . letting it go . . .

Continue to breathe, noticing the response of your body and mind . . . If your mind wanders, and it will, simply bring it back to the breath, in and out . . .

Now, think of a place where you've felt completely content and safe . . . It can be a real or imagined place . . . Just know it is a place where you are completely at ease . . . Continue to breathe deeply, allowing yourself a moment to settle into this place and to notice your surroundings . . .

If it helps, imagine yourself as a distant observer—perhaps a little bird in a tree, watching . . .

Continue to picture this space in your mind. Where are you? What do you **see**? Take time to look around. Take it all in with your eyes . . . Now, notice what you **hear**. Are there familiar sounds in this space? Perhaps only silence? Simply listen and notice . . .

As you continue to breathe, become aware of what you **feel**. Is the sun warm on your skin? Is there a cool breeze? Again, simply notice what you feel . . .

Notice if there are any **scents** in this space. Breathe in deeply, noticing . . . Perhaps you smell the scent of a fresh rain or a meal simmering on the stove? Notice the smells that surround you . . .

And now, what do you **taste** in this space? Perhaps the hint of salt from a nearby ocean or the flavor of your favorite food . . . Notice and savor the taste . . .

And slowly, take several more deep, relaxing breaths . . . noticing again all that surrounds you . . . enjoying your time in this space and knowing you can return here at any time . . .

And in a few moments, when you are ready, gently return your focus to the room . . .

^a When guiding a patient's imagery with a script, be sure to speak clearly, with a calming tone and adequate volume.

^b An ellipsis (...) indicates a pause in speech.

and have greater control over their care. Investigators conducting a pilot study in which elderly postoperative patients were either given an audiotape of relaxing music or instructed to listen to a 20-minute guided imagery audiotape twice daily, beginning the evening after surgery and continuing until discharge, found decreased pain, anxiety, and lengths of stay among patients who received the guided imagery tape compared with those given the musical audiotape.¹⁵

Incorporating caregivers into imagery practice is particularly beneficial in this setting, as it increases

patient support. In long-term care settings, where privacy may be limited and noise can be problematic, patients may find it helpful to use headphones to listen to prerecorded guided imagery scripts. Elderly patients may find written materials that reinforce the practice to be helpful, particularly if they have poor hearing or have experienced cognitive decline.

In children diagnosed with sickle cell disease, Dobson and Byrne found a significant reduction in pain intensity and analgesic use, as well as greater self-efficacy and improved school attendance, when participants used self-initiated guided imagery for five to 10 minutes three times daily over the course of a month, following a brief training period.³¹ Likewise, when Weydert and colleagues compared children with recurrent abdominal pain who were randomly assigned to receive, in addition to their normal medication, either guided imagery with progressive muscle relaxation or breathing techniques to aid in relaxation, they found a significantly greater reduction in pain and days with missed activities among the children assigned to the imagery practice.³² In a randomized controlled trial set in third-grade classrooms, investigators compared the effects on anxiety symptoms and heart rate variability of a 10-minute, daily, teacher-led stress management intervention that included deep breathing, gentle movement, and guided imagery with the effects of a 10-minute, daily session in which a teacher read aloud from a children's book. After four months and at one-year follow-up, the intervention group had significantly lower anxiety scores than the control group. Although heart rate variability scores were not significantly different between the two groups after four months, the intervention group showed significant improvement at one year.³³

EVALUATING OUTCOMES OF IMAGERY STUDIES

As with all aspects of nursing practice, it's important to evaluate the outcomes of imagery work. Its effectiveness can be evaluated through both physiologic and psychological assessment. In several studies, blood pressure, pulse, and respiratory rate are measured both before and after participants engage in imagery practice. Some use questionnaires to elicit subjective self-reports on psychological effects, such as healing or self-awareness, though such questionnaires often lack validity.

Historically, the poor design of imagery studies as well as the inherent difficulty in defining and capturing the essence of "healing"—the outcome sought most often in the practice of imagery—have challenged research efforts. Despite the current availability of formal measurement tools that focus on physical, mental, and spiritual outcomes, Verhoef and Mulkins identified as hindrances the absence of consensus on key concepts and the lack of tools by which to evaluate the various aspects of healing.³⁴ In order to capture some

of the essential elements of healing as experienced by patients, they conducted in-depth, semistructured interviews with 35 participants who had experienced healing episodes in the past. Using qualitative content analysis and thematic coding for data analysis, they determined that healing may be characterized as

- a subjective personal experience.
- a “return to wholeness.”
- self-directed with positive intention.
- lacking a uniform pattern.

Outcomes related to healing included resolution of symptoms; goal attainment; and shifts in social support, outlook, and approach to life.

The work of Verhoef and Mulkins provides valuable information for future research and outcomes measurement. Emerging research that incorporates fMRI, psychophysics, and brain imaging is likely to uncover new evidence about the mechanisms at work during imagery practice and the areas of the brain involved in the high-level cognitive processes underlying imagery use.³⁵ Given the growing body of research that consistently supports imagery as effective and associated with minimal risk, nurses should not hesitate to integrate this powerful tool into practice. ▼

For 14 additional continuing nursing education activities on complementary therapy topics, go to www.nursingcenter.com/ce.

Laurie F. Kubes is codirector of the Integrative Health Program at the Minneapolis Veterans Affairs Health Care System. Contact author: laurie.kubes@va.gov. The author and planners have disclosed no potential conflicts of interest, financial or otherwise.

REFERENCES

1. Reed T. Imagery in the clinical setting: a tool for healing. *Nurs Clin North Am* 2007;42(2):261-77, vii.
2. Koithan M. Concepts and principles of integrative nursing. In: Kreitzer MJ, Koithan M, eds. *Integrative nursing*. New York: Oxford University Press; 2014. p. 3-16. Weil integrative medicine library.
3. Schneider S. Nurse practice act (NPA) analysis summary: preliminary report June 2014. *News from AHNA* 2014. <http://www.ahna.org/portals/4/docs/Resources/Publications/eNews/Archive/7B.14.htm>.
4. Schaub BG, Dossey BM. Imagery. In: Dossey BM, Keegan L, eds. *Holistic nursing: a handbook for practice*. 5th ed. Sudbury, MA: Jones and Bartlett Publishers; 2009. p. 295-326.
5. Elliott H. Imagework as a means for healing and personal transformation. *Complement Ther Nurs Midwifery* 2003; 9(3):118-24.
6. O'Craven KM, Kanwisher N. Mental imagery of faces and places activates corresponding stimulus-specific brain regions. *J Cogn Neurosci* 2000;12(6):1013-23.
7. Naparstek B. *Staying well with guided imagery*. New York: Wellness Central: Hachette Book Group; 1994.
8. Kosslyn SM, et al. The cognitive neuroscience of mental imagery. *Neuropsychologia* 1995;33(11):1335-44.
9. Benson H, et al. Decreased blood-pressure in pharmacologically treated hypertensive patients who regularly elicited the relaxation response. *Lancet* 1974;1(7852):289-91.
10. Lazar SW, et al. Functional brain mapping of the relaxation response and meditation. *Neuroreport* 2000;11(7):1581-5.
11. Wallace RK, et al. A wakeful hypometabolic physiologic state. *Am J Physiol* 1971;221(3):795-9.
12. Louie SW. The effects of guided imagery relaxation in people with COPD. *Occup Ther Int* 2004;11(3):145-59.
13. Lai WS, et al. Efficacy of guided imagery with theta music for advanced cancer patients with dyspnea: a pilot study. *Biol Res Nurs* 2010;12(2):188-97.
14. Jallo N, et al. Effects of a guided imagery intervention on stress in hospitalized pregnant women: a pilot study. *Holist Nurs Pract* 2013;27(3):129-39.
15. Antall GF, Kresevic D. The use of guided imagery to manage pain in an elderly orthopaedic population. *Orthop Nurs* 2004; 23(5):335-40.
16. Halpin LS, et al. Guided imagery in cardiac surgery. *Outcomes Manag* 2002;6(3):132-7.
17. van Tilburg MA, et al. Audio-recorded guided imagery treatment reduces functional abdominal pain in children: a pilot study. *Pediatrics* 2009;124(5):e890-e897.
18. Posadzki P, Ernst E. Guided imagery for musculoskeletal pain: a systematic review. *Clin J Pain* 2011;27(7):648-53.
19. Posadzki P, et al. Guided imagery for non-musculoskeletal pain: a systematic review of randomized clinical trials. *J Pain Symptom Manage* 2012;44(1):95-104.
20. Yoo HJ, et al. Efficacy of progressive muscle relaxation training and guided imagery in reducing chemotherapy side effects in patients with breast cancer and in improving their quality of life. *Support Care Cancer* 2005;13(10):826-33.
21. Eremin O, et al. Immuno-modulatory effects of relaxation training and guided imagery in women with locally advanced breast cancer undergoing multimodality therapy: a randomised controlled trial. *Breast* 2009;18(1):17-25.
22. Van Kuiken D. A meta-analysis of the effect of guided imagery practice on outcomes. *J Holist Nurs* 2004;22(2):164-79.
23. Rossman ML. *Guided imagery for self-healing: an essential resource for anyone seeking wellness*. 2nd ed. Tiburon, CA: H.J. Kramer, Inc.; 2000.
24. National Center for Complementary and Integrative Health (NCCIH). *Relaxation techniques for health: what you need to know*. 2014. <https://nccih.nih.gov/health/stress/relaxation.htm>.
25. Gebhart GF, Schmidt RF. Relaxation-induced anxiety. In: *Encyclopedia of pain*. 2nd ed. Berlin; New York: Springer-Verlag Berlin Heidelberg; 2013. p. 3387.
26. Rossman ML, Shrock D. Mind-body medicine in integrative cancer care. In: Abrams D, Weil A, eds. *Integrative oncology*. New York: Oxford University Press; 2009. p. 244-57. Weil integrative medicine library.
27. Luberto C, et al. OA14.01. Relaxation-induced anxiety: predictors and subjective explanations among young adults. *BMC Complement Altern Med* 2012;12(Suppl 1):O53.
28. Tarantino B, et al. Qualitative and quantitative evaluation of a pilot integrative coping and resiliency program for healthcare professionals. *Explore (NY)* 2013;9(1):44-7.
29. Lindquist R, et al. Personal use of complementary and alternative therapies by critical care nurses. *Crit Care Nurs Clin North Am* 2003;15(3):393-9, x.
30. Page SJ, et al. A randomized efficacy and feasibility study of imagery in acute stroke. *Clin Rehabil* 2001;15(3):233-40.
31. Dobson CE, Byrne MW. Original research: using guided imagery to manage pain in young children with sickle cell disease. *Am J Nurs* 2014;114(4):26-36.
32. Weydert JA, et al. Evaluation of guided imagery as treatment for recurrent abdominal pain in children: a randomized controlled trial. *BMC Pediatr* 2006;6(29).
33. Bothe DA, et al. The effects of a stress management intervention in elementary school children. *J Dev Behav Pediatr* 2014; 35(1):62-7.
34. Verhoef MJ, Mulkins A. The healing experience—how can we capture it? *Explore (NY)* 2012;8(4):231-6.
35. Pearson J. New directions in mental-imagery research: the binocular-rivalry technique and decoding fMRI patterns. *Curr Dir Psychol Sci* 2014;23(3):178-83.