

## Healing Chronic Back Pain

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### Abstract

This case report describes the self-healing process by which a 28-year-old woman who had scattered her L3 vertebra, broken both sides of her jaw, and fractured her left shoulder in a motorcycle accident. After the accident, she underwent two surgeries to replace her shattered L3 as well as fuse her L2 and L4 vertebrae. A year later, she continued to take 5–10 mg of Baclofen and 300 mg of Gabapentin three times a day to control her pain. After one year, she enrolled in a holistic health class that included self-healing practices. She implemented self-healing imagery and other self-regulation strategies, and after three weeks she stopped all medication. At the 18-week follow-up, she is pain free. Discussed are the steps of the self-healing strategies she implemented to improve her health.

**Keywords:** back pain; imagery; visualization; holistic health; self-care; relaxation

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### Introduction

In at the beginning of 2021, I broke my L3 vertebra during a motorcycle accident and underwent two surgeries in which surgeons replaced my shattered L3 with a metal “cage” (looks like a spring) and fused this cage to the L4 and L2 vertebrae with bars. I also broke both sides of my jaw and fractured my left shoulder. I felt so overwhelmed and totally discouraged by the ongoing pain. A year later, after doing the self-healing project as part of the university class assignment, I feel so much better all the time, stopped taking all prescription pain medications, and eliminated the sharp pains in my back. This project has taught me that I have the skill set needed to be whole and healthy.

—J.C., 28-year-old college student

Chronic pain is defined as a pain that persists or recurs for more than 3 months (Treede et al., 2019). It is exhausting and often associated with reduced quality of life and increased medical costs (Yong et al., 2022). Pain and depression coexacerbate

physical and psychological symptoms and can lead to hopelessness (IsHak et al., 2018; Sheng et al., 2017; Von Korff & Simon, 1996). To go to bed with pain and anticipate that pain is waiting for you as you wake up is often debilitating. One in five American adults experience chronic pain, most frequently in their back, hip, knee, or foot (Yong et al., 2022). Patients are often prescribed analgesic medications (pain killers) to reduce pain. Although the analgesic medications can be effective in the short term to reduce pain, the efficacy is marginal for relieving chronic pain (Eriksen et al., 2006; Tan, & Jensen, 2007). Recent research by Parisien et al. (2022) reported that anti-inflammatory drugs were associated with increased risk of persistent pain. This suggests that anti-inflammatory treatments might have negative effects on pain duration. In addition, long-term medication use is a major contributor to the opioid epidemic and increased pain sensitivity (Higgins et al., 2019; Koob, 2020; NIH-NIDA, 2022). Pain can often be successfully treated with a multidisciplinary approach that incorporates nonpharmacologic approaches. These include exercise, acceptance and commitment

therapy, as well as hypnosis (Warraich, 2022). This paper reports how self-healing strategies as taught as part of an undergraduate university class can be an effective approach to reduce the experience of chronic pain and improve health.

Each semester, about 100 to 150 junior and senior college students enroll in a holistic health class that focuses on a whole-person Holistic Health curriculum. The class includes an assessment of complementary medicine and holistic health. It is based upon the premise that the mind and emotions affect body, and that the body affects the mind and emotions, that Green et al. (1970) called the psychophysiological principle.

Every change in the physiological state is accompanied by an appropriate change in the mental emotional state, conscious or unconscious, and conversely, every change in the mental emotional state, conscious or unconscious, is accompanied by an appropriate change in the physiological state. (p. 3)

The didactic components of the class include an overview of the role of posture; the psychophysiology of stress, respiration, lifestyle and other health factors; reframing internal language; guided imagery, and self-healing imagery. Students in the class are assigned self-healing projects to improve their own health using techniques that focus on awareness of stress, dynamic regeneration, stress reduction imagery for healing, and other behavioral change techniques adapted from the book *Make Health Happen* (Peper et al., 2002).

The focus of the last 6 weeks of the class is to identify, develop, and implement a self-healing project to optimize personal health. The self-healing project can range from simple lifestyle changes to reducing chronic pain. Each student identifies their project, such as increasing physical activity, eating a healthy diet (reducing sugar and junk food), stopping vaping or smoking, limiting screen time, reducing anxiety or depression, stopping hair pulling, reducing headaches or back pain, etc. At the end of the semester, 80% or more of the students reported significant reduction in symptoms (Peper, Harvey, et al., 2022; Peper, Lin, et al., 2014; Peper, Miceli, et al., 2016; Peper, Sato-Perry, et al., 2003). During the last five semesters, 13% of the students focused on reducing pain (e.g., migraines, neck and shoulder pain, upper or lower back pain, knee pain, wrist pain, and abdominal pain). The students report that they successfully reduce their symptoms an average of 8.8 on a scale from 0 (*no benefit*) to 10 (*total*

*benefit*). The success for improving their symptoms correlates 0.63 with their commitment and persistence to the project (Heinz et al., 2022).

The purpose of this case example is to describe how a student with severe back pain reduced her symptoms and eliminated medication by implementing an integrated self-healing process as part of a class assignment and offers recommendations on how this could be useful for others.

## Methods

### Participants

A 28-year-old woman (J.C.) had broken her L3 vertebra in a motor cycle accident on January 28, 2021. She underwent two surgeries in which surgeons replaced her shattered L3 with a metal “cage” (which she describes as looking like a spring) and fused this cage to the L2 and L4 vertebrae with bars. She also broke both sides of her jaw and fractured her left shoulder. More than a year later, she was taking 5–10 mg of Baclofen and 300 mg of Gabapentin three times a day to reduce pain.

As a report about an effort to improve the quality of a classroom activity, this report of findings was exempted from Institutional Review Board oversight.

### Goal of the Self-Healing Project

To decrease the sharp pain and discomfort in her lower back that resulted from the motorcycle accident and, although not explicitly listed, to decrease the pain medications.

### Self-Healing Process

During the last 6 weeks of the 2022 Spring semester, the student implemented her self-healing practices for her personal project which consisted of the following steps.

1. To create a self-healing plan that included exploring the advantages and disadvantages of her illness.
2. To create a step-by-step plan with specific goals to relieve the tension and pain in her lower back. This practice allowed her to quantify her problem and the solutions. Like so many people with chronic pain, she focused on the problem and feelings (physical and emotional) associated with the pain. As a result, she often felt hopeless and worried that it would not change.
3. To observe and evaluate when her pain sensations changed. She recognized that

she automatically anticipated and focused on the pain and anxiety whenever she needed to bend down into a squat. She realized that she anticipated pain even before she began to squat. This showed that she needed to focus on healing before and during the movement of this area of her body. Through her detailed observations, she realized that her previous general rating of back pain could be separated into two components: muscle tightness/stiffness and sharp pain. With this realization, she changed the way she was recording her pain level.

4. To ask questions of her unconscious through a guided imagery practice of accessing an inner guide (for detailed instructions, see Peper et al., 2002, p. 197–206). In this practice, the person relaxes and imagines being in a special healing place where they feel calm, safe, and secure. Then as they relax, they become aware of another being (wise one or guide) approaching them (the being can be a person, animal, light, spirit, etc.). The being is wise and knows them well. In their mind, they ask this being questions such as, “What do I need to do to assist in my own healing?” Then they wait and listen for the answer. The answers may take many forms such as in words, pictures, a sense of knowing, or it may come later in dreams or in other forms. When students are assigned this practice for a week, most report experiencing some form of guide and many find the answers meaningful for their self-healing project.

Through this imagery of the inner guide script, she connected with her higher self and the wise one told her, “Wait.” This connecting with the wise one was key in accepting that the project was not as daunting as she initially thought. She realized that pain was not going to be forever in her future. She also interpreted that as reminder to have patience with herself. Change takes time and practice, which she previously experienced while correcting her posture to manage her emotions and edit her negative thoughts into positive ones (Peper et al., 2022). Whenever she would have pain or feel discouraged because of external circumstances, she would remind herself:

- I need to have patience with myself.
- I have all the healing tools inside of me, and I am learning to use them.

- If I do not make time for my wellness, I’ll be forced to make time for my illness.

5. To practice the self-healing imagery as described by Peper et al. (2002) and adapted from the work by Dr. Martin Rossman (Rossman, 2000). Imagery can be the communication channel between the conscious/voluntary and the unconscious/autonomic/involuntary nervous system (Bresler, 2005; Hadjibalassi et al., 2018; Rossman, 2019). Imagery appears to act as the template and posthypnotic suggestion to implement behavior change and may offer insight and ways to mobilize our self-healing potential (Battino, 2020). Imagery is dynamic and changeable.

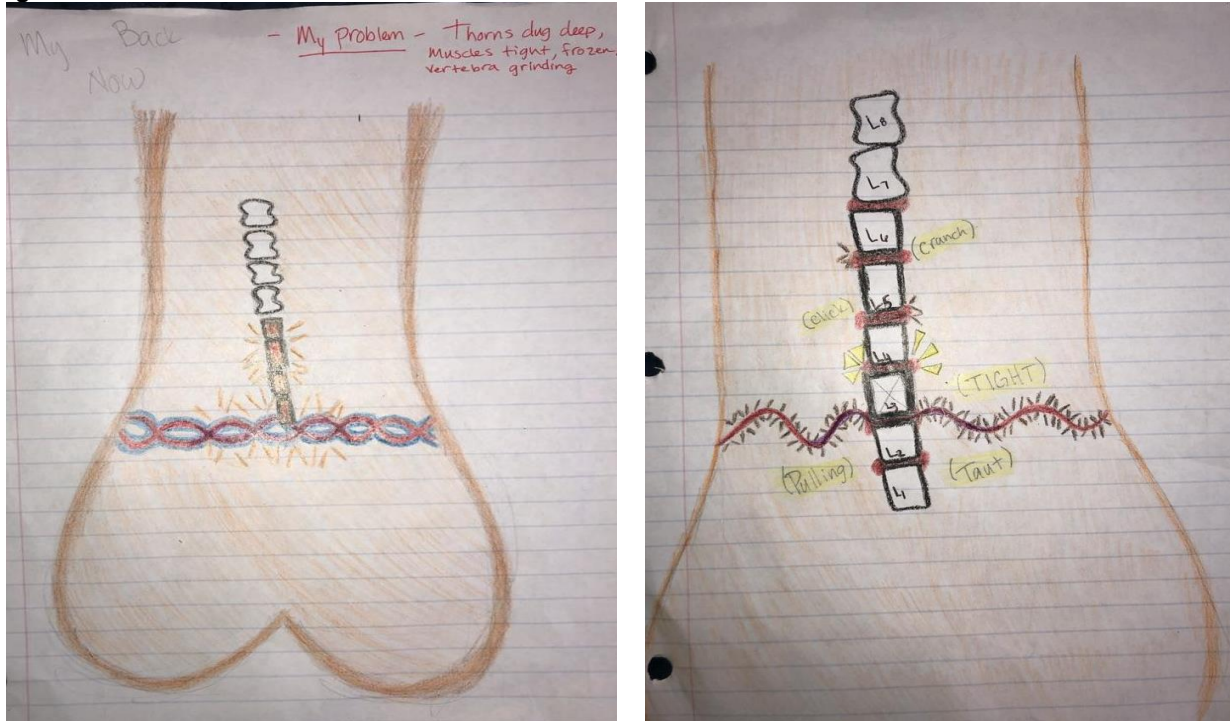
The process of self-healing imagery consists of three parts.

1. To inspect the problem and create a graphic illustration of the problem as it is experienced at the present moment of time.
2. To illustrate graphically how that area or problem would look when being completely well/whole or disappeared.
3. To create a self-healing process by which the initial problem is transformed into health (Peper et al., 2002, p. 217–236). This focuses on what the person could do for themselves; namely, each time they thought of or became aware of the problem, they would focus on the self-healing process. It also implies that there is hope and they could become well.

The drawings of inspection of the pain and problem she experienced at that moment of time are shown in Figure 1. The resolution of the problem and being well and whole are illustrated in Figure 2.

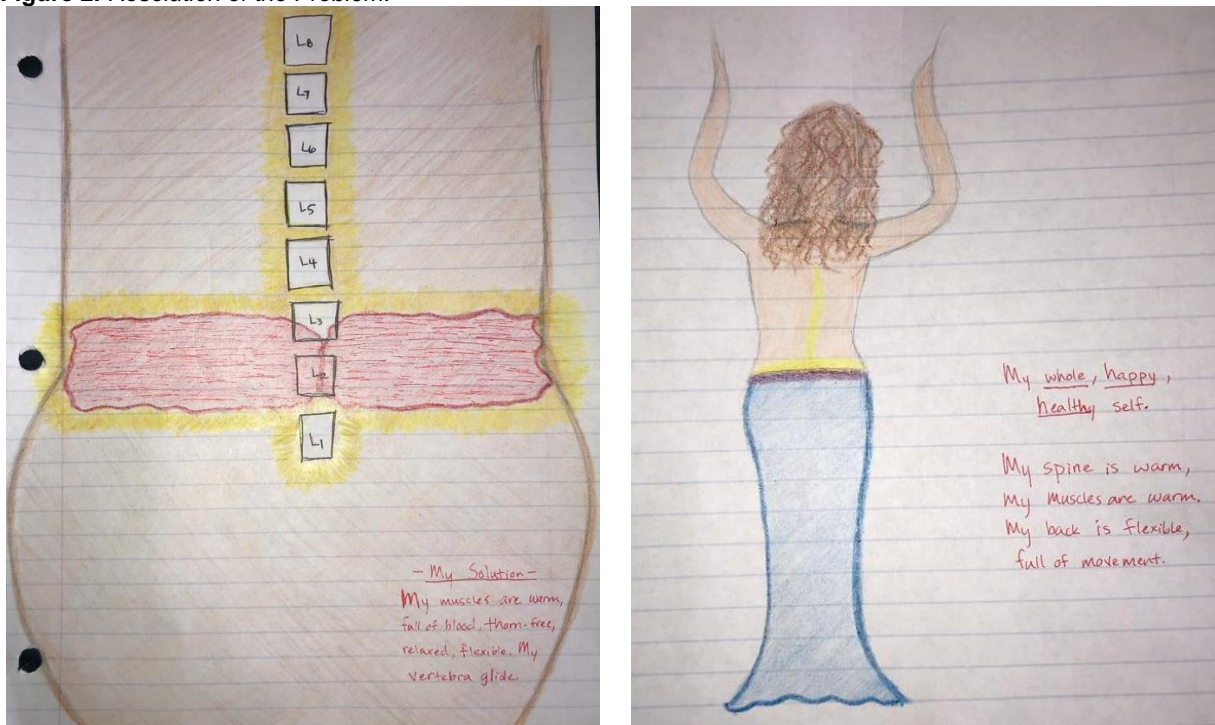
During the weeks of practice, she utilized the first image of the muscles warm, full of blood, free of thorns, relaxed, and flexible. Her second image of her fully being healed was inspired through a religious statue of Yemaya that she had in her room (Yemaya is a major water spirit from the Yoruba religion Santeria and Orisha of the seas and protector of women). Each time she saw the statue, she thought of the image of herself fully healed and embodying the spirit Orisha. Therefore, this image remained important to her all the time. Her healing imagery process by which she transforms the image of inspecting of the problem to being totally well are illustrated in Figure 3.

**Figure 1. Illustration of the Problem of the Pain.**

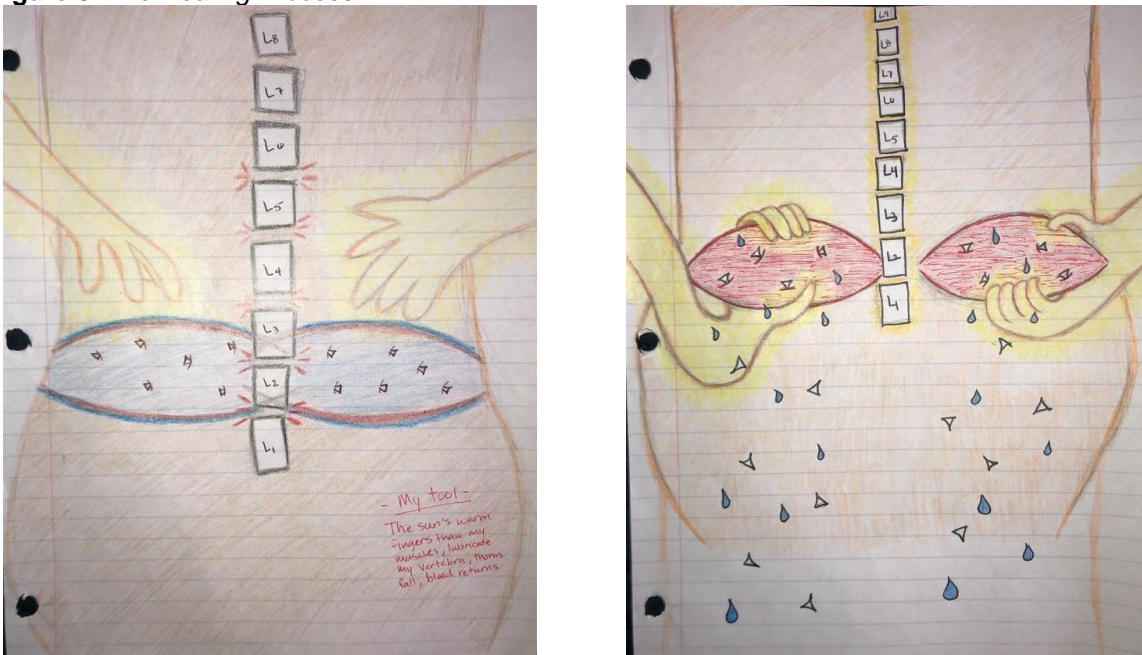


**Note.** Thorns dug deep, muscles tight, and frozen vertebrae grinding.

**Figure 2. Resolution of the Problem.**



**Note.** Resolution of the problem in which her muscles are warm, full of blood, free of thorns, relaxed and flexible; and being whole happy and healthy in which her spine is warm. Her muscles are warm, and her back is flexible and full of movement.

**Figure 3. The Healing Process.**

**Note.** The sun's warm fingers thaw my muscles, lubricate my vertebra, thorns fall out, and blood returns.

For 5 weeks she implemented her self-healing project by creating a self-healing plan, asking questions of her unconscious, and drawing her self-healing imagery. She also incorporated previously learned skills from the first part of the semester such as diaphragmatic breathing, hand warming, shifting slouching to upright posture, and changing language. Initially she paired hand warming with the self-healing imagery. She could feel an increase in body warmth each time she practiced the imagery. J.C. practiced the self-healing imagery as an in-depth daily practice and throughout the day when she became aware of her back as described in her log entries:

I repeated the same steps as the day prior today. I did my practice in the early morning but focused on the details of the slowed down movements of the sun's hands. I saw them as they stretched out to my back, passed through my skin, wrapped around my muscles, and began to warm them. I focused on this image and tried to see, in realistic detail, my muscles with a little ice still on them, feeling hard through and through, the sun's glowing yellow-orange fingers wrapped around my muscles. I imaged the thorns still in my muscles, though far fewer than when I started, and then I imaged the yellow-orange glow start to seep out from the sun's palms and fingers and spread over my muscles. I imaged the tendons developing as

the muscle tissue thawed and relaxed, the red of the muscle brightened, the ice on and within my muscles started to melt, and the condensation formed as it ran down into collected droplets at the bottom of my muscles. I imaged the thorns lose their grip and fall out, one at a time, in tandem with the droplets falling. I continued this process and imaged my muscles expanding with warmth and relaxation as they stayed engulfed in the warmth of the sun.

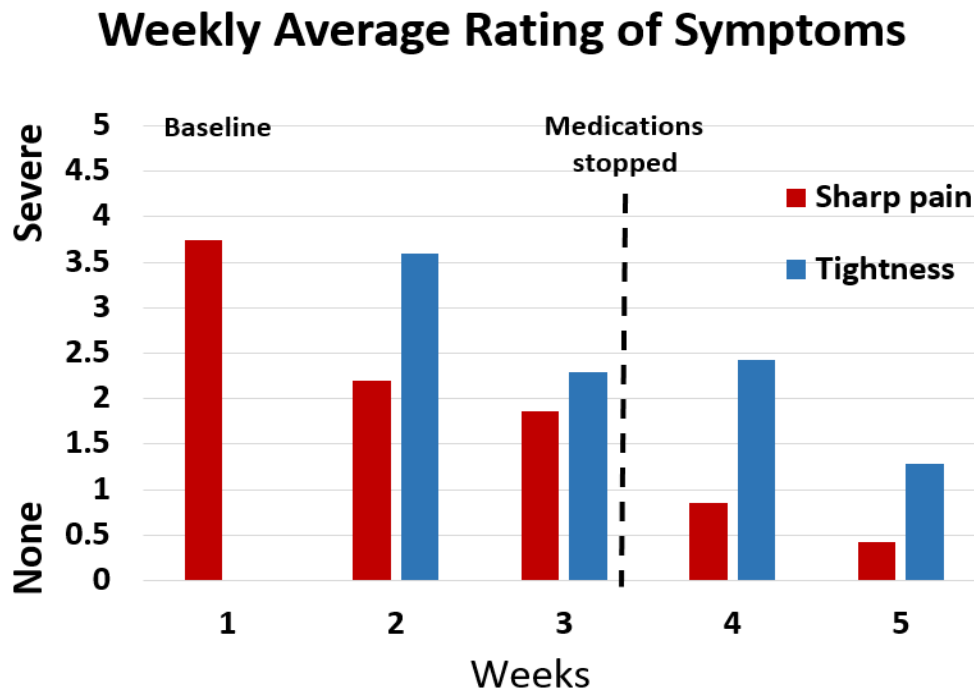
At the end of my practice, I did a small stretch session. I felt extremely refreshed and ready for yet another extremely busy day between internship, graduation, and school. I would say I felt warm and relaxed all the way into the afternoon, about six hours after my practice. This was by far the most detailed and impactful imagery practice I have had.

The self-healing imagery practice provided me with the ability to conceptualize more than my problem, as it showed me the tools to (and the importance of) conceptualizing my solution, both the tool and end result.

## Results

Pain and tightness decreased, and she stopped her medication by the third week as shown in Figure 4.

Figure 4. Self-Rating of Sharp Pains and Tightness During the Self-Healing Project.



At the 18-week follow-up, she continues to improve, experiences minimal discomfort, and no longer takes medication. As J.C. stated, “I was so incredibly shocked how early on [in the project] I was able to stop taking pain medications that I had already taken every day for over a year.”

### Discussion

This individual case example provides hope that health can be improved when shifting the focus from pain and discomfort to focusing on actively participating in the self-healing. As she wrote,

The lesson was self-empowerment in regard to my health. I brought comfort to my back. There is metal in my back for the rest of my life, and this is something I have accepted. I used to look at that as a horrible thing to have to handle forever. I now look at it as a beautiful contraption that has allowed me to walk across a graduation stage despite having literally shattered a vertebra. I am reintegrating these traumatized parts of my body back into a whole health state of mind and body. Doctors did not do this, surgeries did not, PT (physical therapy) didn't and neither did pain medications. MY body and MY mind did it. I did this.

The self-healing project was the culmination project for the class that included attending the weekly class session and completing assigned homework practices. These included discussion about placebo/nocebo, the role of hope, examples of self-healing with visualization, the role of nutrition, the psychophysiology of stress, and factors associated with healthy aging across cultures. Although self-healing imagery appears to be the major component that facilitated her healing, it cannot be parceled out from the many other concepts and practices that she learned such as hand warming and learning slow diaphragmatic breathing.

In the class discussions it was pointed out that not everyone may return to health; however, they can always be whole. For example, if a person loses a limb, the limb will not regrow; however, the healing process probably includes acceptance and creating new goals to achieve and live a meaningful life.

To encourage a shift in perspective, students were assigned to watch and comment on videos of people who had overcome serious illness. These included Janine Shepherd's 2012 TED Talk, *A broken body isn't a broken person*, and Dr. Terry Wahl's 2011 TEDxIowaCity Talk, *Minding your mitochondria*. Janine Shepherd shared how she recovered from a very serious accident in which she became

paralyzed to becoming an acrobatic pilot instructor, while Dr. Terry Wahl shared how she cured and got out of her wheelchair and cure her severe Multiple Sclerosis with diet (Shepherd, 2012; Wahl, 2011). In addition, they were assigned to watch Madhu Anziani's presentation, *Healing from paralysis-Music (toning) to activate health*, in which he discussed how he recovered from being a quadriplegic to becoming an inspirational musician (Anziani & Peper, 2021). Finally, the students read and commented on other students' case examples of reversing acid reflux, irritable bowel and chronic headaches (Peper, 2018, 2022; Peper, Covell, et al., 2021; Peper, Mason, Harvey, et al., 2020; Peper, Mason, & Huey., 2017a, 2017b). By seeing how others overcame chronic disorders, the class provided an educational approach by which she reduced her chronic back pain.

### Lessons extracted from this case example that others may be able use to mobilize health.

- Take action to shift from being hopeless and powerless to becoming empowered and an active agent in the healing process.
- Change personal beliefs that healing and improvement are possible through experiential practices and storytelling.
  - Teach the person self-regulation skills—such as slower breathing, muscle relaxation, cognitive internal language changes, and hand warming—by which the person experiences changes.
  - Provide believable role models who shared their struggles in overcoming traumatic injury, such as inspirational talks, and previous clients' or students' self-reports who have improved.
- Transform the problem from a global description into specific behavioral specific parts. For example, being depressed is a global statement; however, if it can be broken down into specific behaviors such as, “my energy is too low to do exercise” or “I have negative thoughts.” The intervention will then focus on resolving the specific behavior such as increasing exercise or changing thoughts. In J.C.'s case, she changed the general rating of pain into muscle tightness and sharp pains. This provided the bases for strategies to relax and warm the muscles.
- Focus on what you can do at this moment versus focusing on the past, what happened, who caused it, or blaming yourself and others. Explore and ask what you now can do now to support your healing process and reframe the problem as a new opportunity for growth and development.
- Practice, practice, and practice with a childlike exploratory attitude. Focus on the small positive benefits that may occur. It is not mindless practice; it is practice while being present and being gentle with yourself. The benefits accrue as you practice more and more which many people have experienced when learning to play a musical instrument or master a sport. Even though many participants believe that practicing 15 min a day is enough, it usually takes much more time. Reflect on how a baby learns to walk or climb. The toddler practices daylong and takes naps to regenerate and grow. When the toddler is not yet successful in walking or climbing, it does not give up or interpret it as failure or self-blame, it just means practice more.
- Have external reminders to evoke the self-healing practices. In J.C.'s case, the small statue of Yemaya in her room was the reminder to think of herself fully healed each time she saw it.
- Guide yourself through the wise one imagery, ask yourself a question, then listen and act on the intuitional answers.
- Develop a self-healing imagery process that transforms the dysfunction to health or wholeness. Often the person only perceives the limitations and focuses on describing the problem. Instead, acknowledge, accept what was and is, and focus on developing a process to promote healing. What many people do not realize is that when they think or imagine how their injury or illness was caused, it may reactivate and recreate the initial trauma. We forget that our thoughts change physiology. For example, when one imagines eating a lemon, the person will probably salivate (a parasympathetic response). Thus, focus on processes that support healing.
- While practicing the imagery, experience it as if it is real and feel it happening inside yourself. Many people initially may find this challenging as they see it outside themselves. One way to increase the “felt sense” is to incorporate more body involvement such as acting out the imagery with hand and body movements.
- When having a relapse, remind yourself to keep going. Every morning is the beginning of a new day, do each practice anew. To increase motivation, reflect on something that was challenging in the past but that you successfully overcame. Focus on that success. As J.C. wrote, “I was also successful in that I gave myself slack and reminded myself that relapses will happen and what matters more are the steps I take to move forward.”

- Make healing a priority—that means making yourself a priority. This means doing it often and during the day. Allow the self-healing imagery and process to run in the back of the head just as a worry can be present in the background most of the day. So often people practice for a few minutes (which is great and better than not practicing at all); however, at other times during the day they are captured by their worry, negative thoughts, or limitations caused by their disorder.

When a person focuses on the limitations, it may interrupt the self-healing process. The analogy we often use is that the healing process is similar to healing from a small cut in the skin. Initially a scab forms, and eventually the scab falls off and the skin is healed. On the other hand, if you keep moving the skin or pick at the scab, the healing is much slower. By focusing on the limitations and past visualization of the injury, self-healing may be reduced. This is similar to removing the scab before the skin has healed. As J.C. stated, “‘If you don’t make time for your wellness, you’ll be forced to make time for your illness’ was 100% a motivating factor in my success.”

- Explore resources for providers and people living with pain. Dr. Rachel Zoffness provides a trove of high-quality articles, books, videos, apps, and podcasts on her website <https://www.zoffness.com/resources>

In summary, we do not know the limits of self-healing; however, this case example illustrates that, by implementing self-healing strategies, health and recovery are possible. As J.C. wrote:

To have broken a vertebra in my back and experience all the injuries that came with the accident when I already did not have the strongest mind-body connection was incredibly intense and really heartbreaking and discouraging in my life. That made things difficult because I was not able to 100% focus on my healing because I felt so overwhelmed by the feeling of discouragement that I felt. Experiencing this self-healing project and seeing the imagery that helped me not just feel so much better all the time but be able to stop taking all prescription pain medications and eliminate the sharp pains in my back have taught me that I have the skill set needed to be whole and healthy.

### Author Disclosure

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