

DRAFT

Fibromyalgia pain symptoms eliminated using memory reconsolidation mechanism

Lars Clausen

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Abstract:

Research has demonstrated the involvement of peptides in the function of both mind and body.¹ Research has also demonstrated these instructional peptides are created in response to emotion. More recent research has demonstrated that the peptides in memories become labile when the memory is retrieved.² These peptides that carry an initial emotion can then be replaced by new peptides that carry different emotions. Using a process that employs these research findings, the effect of peptide replacement on physical pain levels was studied in 30 patients suffering from symptoms of fibromyalgia. In a majority of cases, long-standing fibromyalgia pain was eliminated temporarily in a single session.

Article:

Fibromyalgia is estimated to affect approximately three percent of the population in the United States.³ Current treatment methods focus on relieving the symptoms of fibromyalgia, but according to Ginevra Liptan, "Ultimately, all the symptoms of fibromyalgia stem from abnormal activation of the fight-or-flight nervous system."⁴

"The muscles and fascia of the body are clenched in fibromyalgia in constant preparation for fight-or-flight."⁵ Along with muscle and fascia pain, typical symptoms for people with fibromyalgia include: skin sensitivity, mental focus impairment, irritable bowel syndrome, sensitive skin, sleep disorder, fatigue, chronic headaches and migraines, and jaw pain, to name a partial list.

"When we figure out how to turn off the switch off the stress response that gets stuck in the 'on' position in fibromyalgia] we will have found a cure."⁶

Recent neurobiological research has demonstrated the phenomenon of memory reconsolidation.^{7,8} Peptides are integral to the process of wiring and holding memories together. Memory reconsolidation describes the process of replacing peptides once the memory has been brought out of storage and into present consciousness. Replacing peptides can alter the emotion attached to the memory. In a study by Daniella Schiller, the effects of memory reconsolidation have been shown to persist for at least one year.⁹

An assumption of this study is that if the emotions of our memories are altered, this may impact the degree to which the fight-or-flight response is activated. Earlier work by Candace Pert demonstrates that peptides not only affect the mind, but also the body.¹⁰ Changing our emotions causes different peptides to be created, and these peptides then modify the instructions to the cells of our body.

A study of 39 fibromyalgia patients from the Frida Center for Fibromyalgia in Portland, Oregon was conducted in the fall of 2012. The study observed the effect on pain and negative emotion due to using an intentional memory reconsolidation process. The study provided a single session for each patient.

In their session participants were invited to relate important memories and feelings about their fibromyalgia experience. Participants then learned how to enter a calm state. In the calm state, the body produced “calm peptides” that were different from those associated with the stressful memories and stressful feelings of the person’s fibromyalgia experience. In this calm state, it is hypothesized that a person’s fight-or-flight response has been turned off. These new calm peptides were hypothesized to become available for the memory reconsolidation process.

To test for results, a study group of 39 fibromyalgia patients each received a single exposure to the memory reconsolidation process. Patients who had come in for their regular fibromyalgia visit were asked if they had time and interest to participate in a session. All sessions were conducted by the primary author of this study. Each of these patients is under the ongoing medical care of fibromyalgia specialist, Cheryl Hryciw, NP. Sessions lasted from 15 to 90 minutes for each person.

Test Method

Identifying an issue: Patients were asked to identify an issue or issues that were most critical for them about their fibromyalgia. The issue could be a physical issue, an emotional issue or an issue of memory or experience. These three issue types all involve peptides to at least some extent. Peptide involvement in our physical body has been demonstrated by Candace Pert, one of many researchers who has demonstrated that peptides provide instructions for the function of cellular activity.¹¹ Peptide involvement in memory and experience has been shown by Joseph LeDoux, one of the researchers who has demonstrated that peptides are involved in binding brain cells together in memory formation.¹² Peptides are involved directly in the experience of emotions; peptides have been shown to form in correspondence to the particular emotion being experienced.¹³

Physical pain levels were recorded at the beginning of each patient’s session, based on a zero to ten level with ten being the highest level of pain. A Revised Fibromyalgia Impact Questionnaire (FIQR) was completed by participants during their session.

Changing the emotional state to calm: Patients were shown a method for entering a state of calm. The method used for the first 13 patients is called “the space between thoughts.” This method, described by Frank Kinslow,¹⁴ helped 7 of the 13 patients enter into the calm state. After the first thirteen patients, the calming technique was changed to “the space between points,” also described by Frank Kinslow.¹⁴ The “space between points” technique allowed all 26 of the remaining patients in the study to enter a calm state within five minutes or less of beginning the space between points exercise. It is hypothesized that when patients entered a state of calm their fight-or-flight mechanism turned off.

Exchanging peptides and emotional states: Once patients entered the calm state, they were invited to observe their initial issue again to begin the process of memory reconsolidation. Patients were invited to observe back and forth between their issue of concern and the state of calm. It is hypothesized that this conscious exchanging between the issue state and the calm state allowed the memory reconsolidation process to bring calm to issues and memories that had previously not been calm.

This method was labeled by the author with the acronym ICE.

I – Identification of an issue

C - Calm state exercise

E – Exchanging peptides in memory reconsolidation process.

Description of a typical session:

After the patients regular meeting with their medical provider, an ICE session was offered to the patient. The steps followed during a typical session are included as an addendum to this report.

Test Results:

Initial zero-to-ten pain levels prior to their session are shown in figure one for each individual in the study.

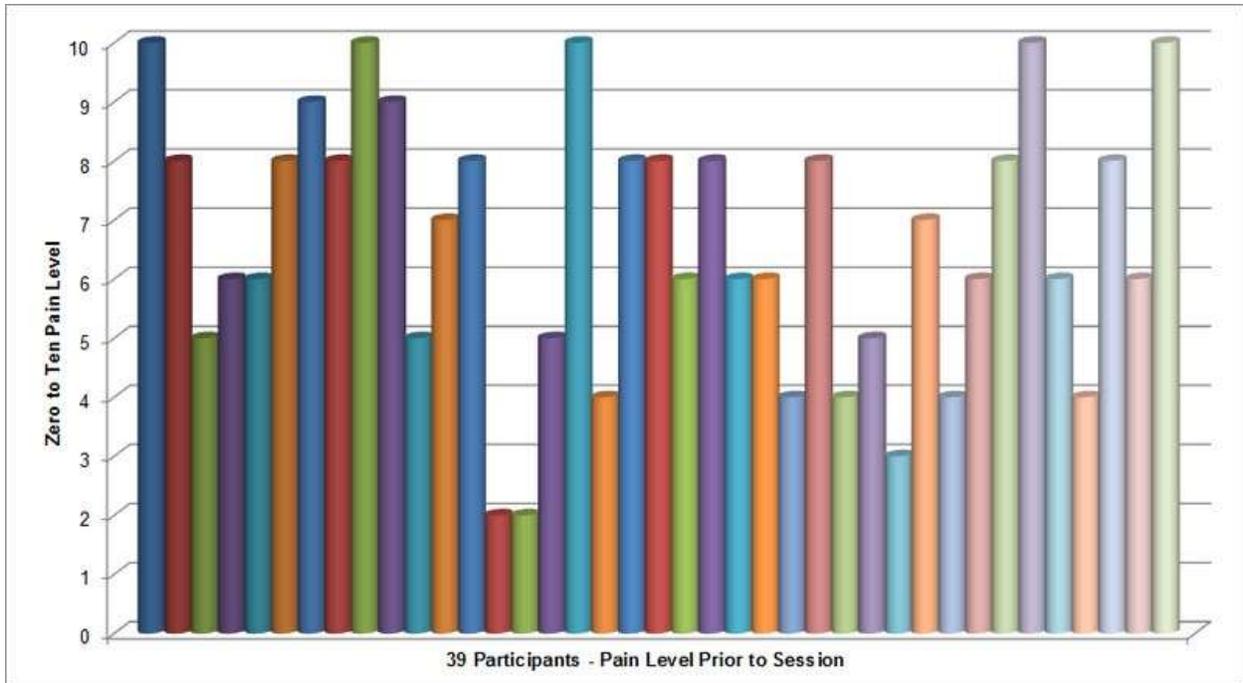


Figure 1 – Pain Level for each person before ICE session

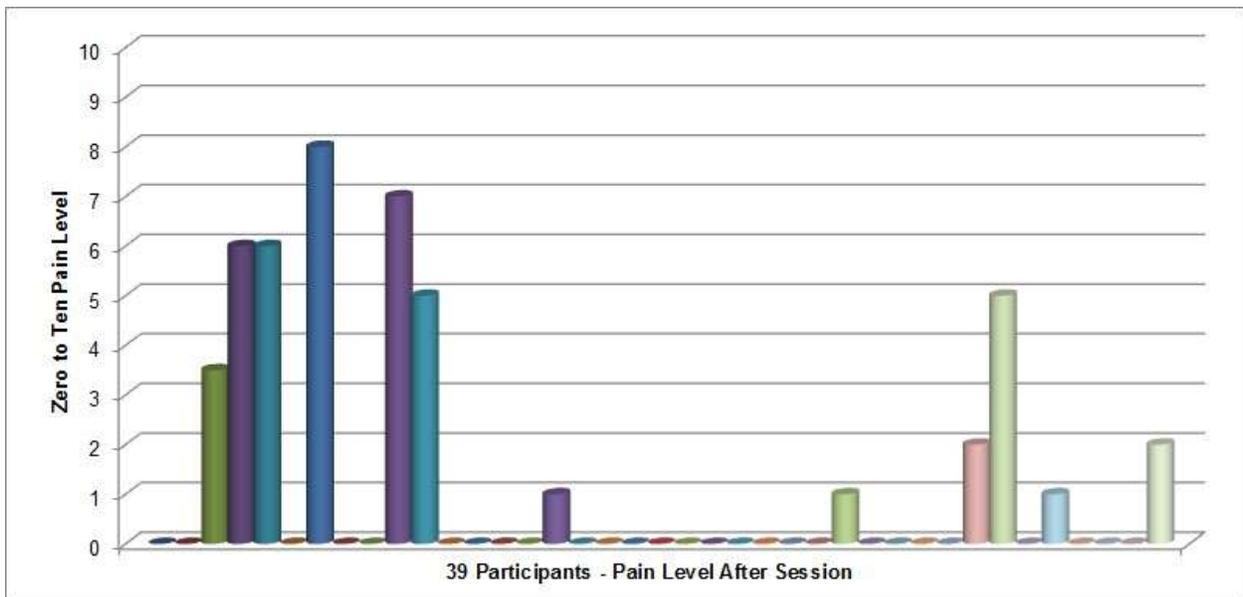


Figure 2 – Pain Level for each person after single ICE session

FIQR levels were provided by 32 of the 39 individuals in the study. The average FIQR value is 62, ranging from a low score of 30 to a high score of 91. The mean FIQR value is 65 and the standard deviation is 19.88.

Whether a person entered the calm state and shut down their fight-or-flight response during a session determined whether they experienced a reduction in their pain and negative emotion. Of the 39 total patients who were offered an ICE session, 33 of them sensed that they entered the calm state.

Little to no pain relief for the six people who did not enter the calm state:

Six of the thirty-nine patients did not experience entering a calm state. Patients who did not enter a calm state during their session experienced little or no pain relief. Two of these patients reported a decrease in pain level of two points. One of the patients who did not enter the calm state reported a decrease in pain level of one point. The remaining three patients reported no decrease in their pain level.

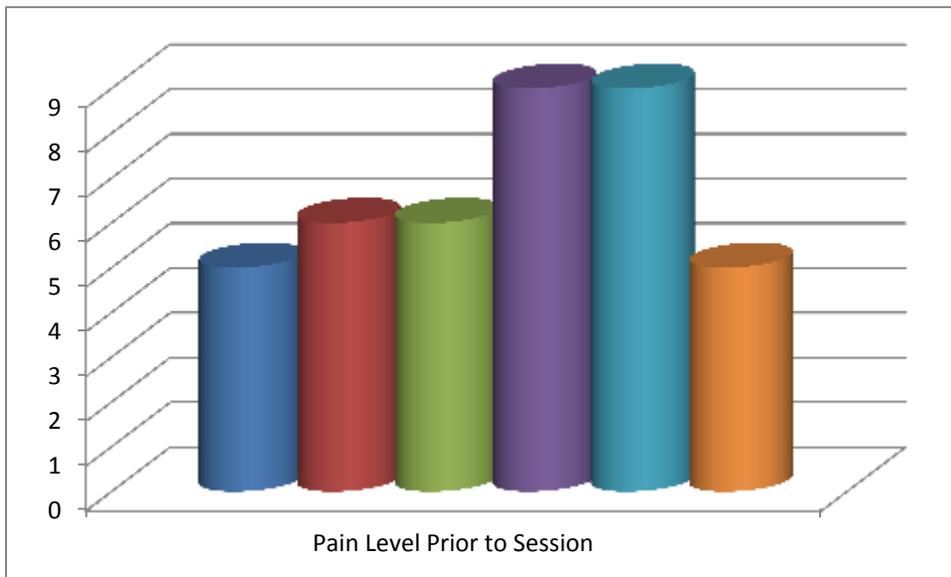


Figure 3: Before ICE Session Pain Levels for patients who did NOT enter calm state

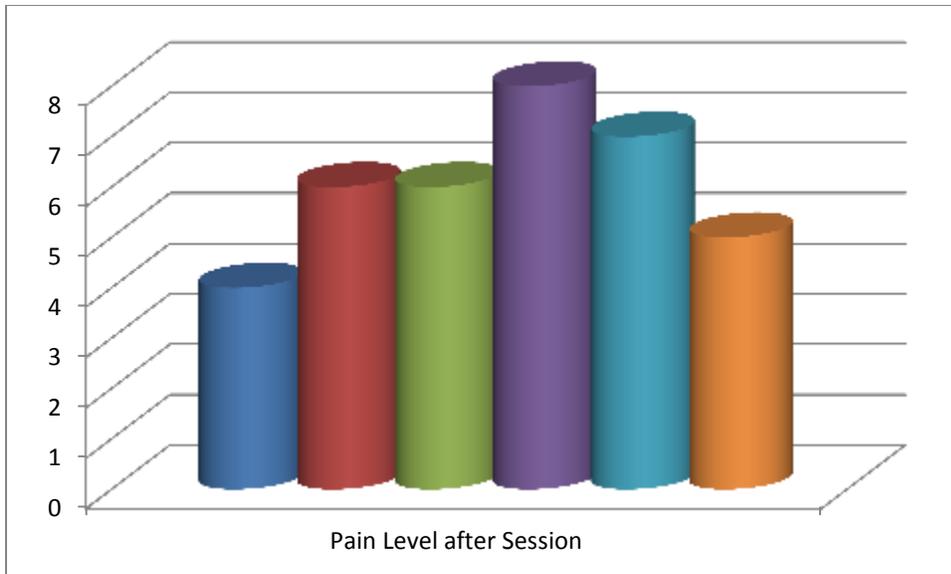


Figure 4: After ICE Session Pain Level for patients who did NOT enter calm state

Pain relief for all 33 people who did enter the calm state:

After sessions with the first 13 patients, the method of entering the calm space was shifted from “the space-between-thoughts,” to using the method of “the space-between-two-points.” This method had greater effectiveness. Once the “space-between-points method” was employed all 26 of the remaining patients in the study entered the calm state easily, within a period of five minutes or less.

Twenty-seven patients experienced complete pain relief:

For the 33 patients who did experience the calm state, 27 of them experienced the complete elimination of their fibromyalgia pain during the session. For these 27, the average initial pain level was 6.59 with a standard deviation of 2.36.

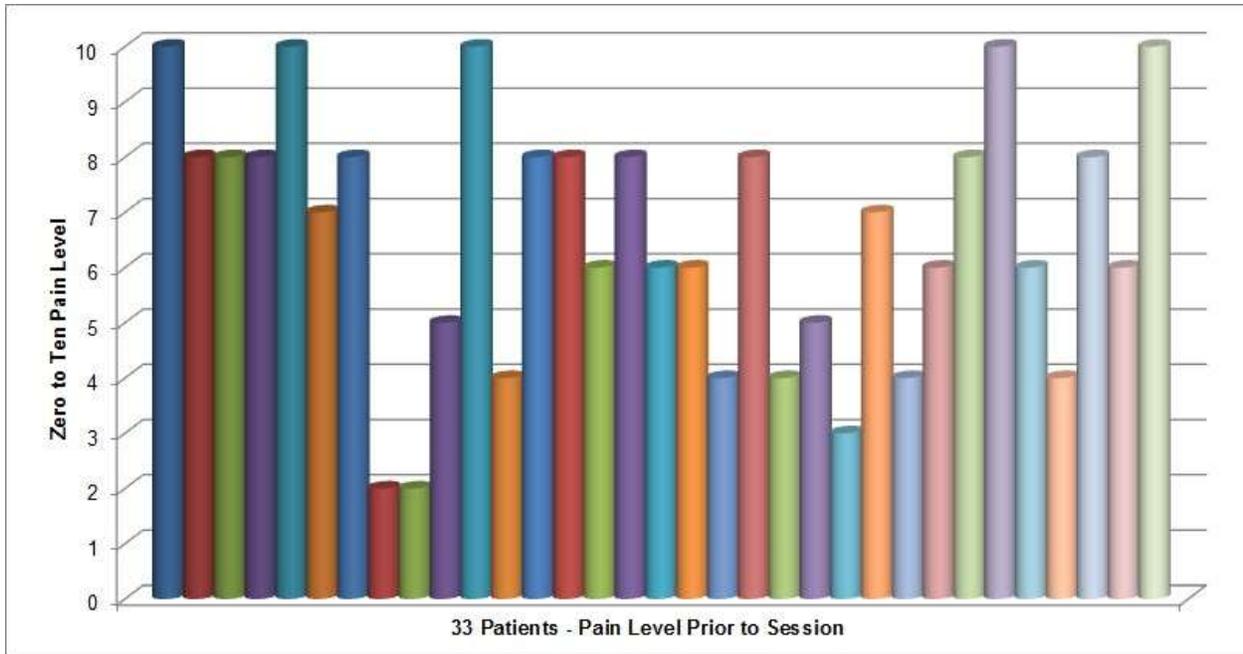


Figure 5: Pre ICE-Session Pain Level for patients who successfully entered the calm state

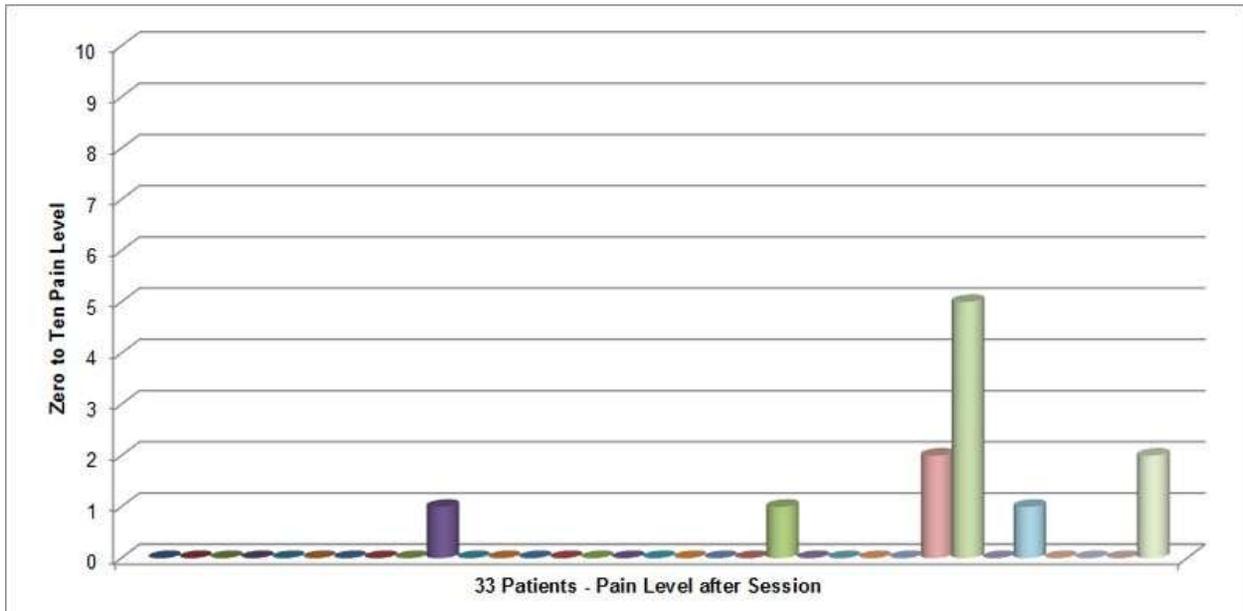


Figure 6: Post ICE-session Pain Level for patients who successfully entered the calm state

Six patients had remaining pain:

For those six patients who experienced the calm state but did not experience complete elimination of pain, their level of reduction is shown in Table 1.

Initial Pain Level	Final Pain Level
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5	1
4	1
6	2
8	5
6	1
10	2
Ave = 6.50	Ave=2.00
St.Dev=1.98	St. Dev=1.41

Table 1 – Initial and Final Pain Levels for those who experienced calm state but finished session with remaining pain.

FIQR correlation to pain relief: Of the 33 patients who entered the calm state, FIQR's were submitted by 28 of these patients. The correlation between FIQR score and pain relief is shown in Table 2. It appears that the experience of complete pain relief was independent of the patients FIQR score.

	# Participants	# Complete Relief	#Partial Relief
FIQR<50	6	5	1
50<FIQR<70.00	11	9	2
FIQR > 70.00	11	9	2

Table 2 – Participant's experience of pain relief as a function of FIQR score.

Discussion

The present findings suggest a technique for reducing or eliminating symptoms of fibromyalgia. Combining findings from Candace Pert's work on peptides in the mind and body, along with the work on memory reconsolidation that comes from Daniella Schiller et al., a method was hypothesized for extinguishing the emotional charge from issues and memories in a person's life and thus calming a person's fight-or-flight response. The ICE Method included identifying one or more issues for a person, entering a calm state, and exchanging emotional peptides. Entering a calm state was the relevant factor for whether a person did or did not experience symptom reduction during the ICE process.

This study showed that at least temporary pain elimination is possible for people with fibromyalgia. The results indicate a high degree of predictability from this process. The results indicate that a person's FIQR score may not be related to whether a person experienced complete relief during their session.

Many questions arise from this study.

How long does the pain relief last:

Longer term tests are needed. It is hypothesized that if pain reduction was experienced as a

result of the fight-or-flight mechanism shutting down, the pain relief would last until the fight-or-flight system is reactivated.

Will successive sessions be as successful in reducing or eliminating pain after pain has returned: Longer term tests are needed. It is hypothesized that if pain returns it will be because the fight-or-flight system has been reactivated. It is assumed that if the fight-or-flight system could be turned off by this method for a person, then reapplying the method would bring similar reductions in pain levels upon successive application.

What types of pain are eliminated?

Along with the relief of pain symptoms that had no obvious physical or mechanical causes, pain was relieved in cases where clear causative factors were present, including bulging back discs, bone-on-bone vertebrae contact, neuropathy, scoliosis, and spinal stenosis. Further study might be useful in determining whether the ICE method is more useful for some types of symptoms than for other types of symptoms.

What is the effect of the person who facilitates the ICE method?

Lars Clausen facilitates the ICE method professionally with clients dealing with a variety of emotional and physical issues. How much are the results dependent on the capacity of the person leading the session? How much can the method be administered independent of the facilitator? What would be the effect of offering the ICE method for group sessions or other formats besides in-person, one-on-one facilitations?

Summary

Fibromyalgia symptom relief was provided during a memory reconsolidation session with a high degree of predictability for a test group of 39 people. The present findings suggest a technique for reducing or eliminating symptoms of fibromyalgia. This technique relies on the phenomenon of memory reconsolidation as a means of turning off the fight-or-flight mechanism. The study raises questions for further study.

Addendum

Description of a typical session: After the patients regular meeting with their health care provider, an ICE session was offered to the patient. A typical session unfolded as follows. (This description includes the “space between two points” method.)

1. *Initial pain level:* Facilitator checked in for pain levels and how long patient has been dealing with fibromyalgia
2. *Question to patient:* “What emotion would you say describes your feelings about having fibromyalgia.”

3. *Explanation of peptides:* “The first thing I want you to know is that a literal molecule is created in response to whatever we are feeling at the moment. This molecule, called a peptide does two things related to your pain. It provides instructions for the cells of your body for what they should be doing. Peptides are also involved in memory storage.”
4. *Introducing the Calm State:* “I’m going to show you how to enter a calm state. When you’re in the calm state you’ll be making calm peptides. First focus your sight on the door handle. Notice that as you focus on the door handle, it’s a simple thing, and there’s little or no emotion involved. And the cells of your body do this because you told them to. The cells of our body, for as long as we live, are our servants. The problem is the cells of our body spend a lot of their time and energy responding to things they can’t do a thing about -- our worries and fears about the past and the future. You can tell this is true if you wake up in the night and your heart is pounding about something that happened last week or that is going to happen next week. There’s nothing for your body to do while you’re in bed, but since your body can’t tell the difference between a thought and an action, your body goes on alert. Going into the calm state turns off the alert signal.

So, while you’re focusing on that door handle, your body follows your command. And because it’s so simple you may already feel your body beginning to relax. Now focus on a second object, that blood pressure monitor on the wall. Again, the cells of your body do what you tell them. Next, I’m going to ask you to let your gaze move to the space between these two objects. There’s a wall in the background, but in the space between the door handle and the monitor, there is nothing. So you are observing nothing with your mind, because there is nothing to observe. And because you are observing nothing with your mind, there is nothing for the cells of your body to observe. And because there is nothing for the cells of your body to observe, the cells of your body are observing nothing. And when the cells of your body observe nothing, there is nothing to do, and the cells of your body turn inward to the process of cellular healing and restoration.

In this rest state, your cells can metabolize energy, get rid of wastes, tune up the DNA strand, check in with the health of the body and even make drugs to help heal and restore your body. In rest state the cell membrane is open and can transfer information and chemicals back and forth with the rest of the body. In this state you become your own perfect pharmacy. This calm state is the healthiest thing you can do for your body. You are giving your cells complete freedom to engage in healing for your body. Notice that you can be in this calm state and still be taking in information when I speak. The

calm state does not shut your mind down. You can still observe everything, but your body remains calm, and your body can continue to focus on healing even when you're observing what's going on in the world. If you get some practice, this calm state can become your default state instead of always being in fight-or-flight mode.

5. *Explanation of fight-or-flight state:* "This calm state is the natural resting mode for your body. The only time that the fight-or-flight response is needed is during a clear and present physical danger to our body. Then the fight-or-flight will automatically engage. For anything that you're thinking about, you don't need your fight-or-flight response. The problem is that for almost everyone, we have our fight-or-flight response turned on for almost everything, almost all of the time, responding to all the things we think about in the past, present, and future. Having your fight-or-flight on all the time is like driving your car home and parking it in the garage and leaving the engine all night – 'just in case.' Leaving your car on all night drains the gas tank and fills the garage with pollutants. A similar thing happens to our body when we have our fight-or-flight on all the time – it drains our energy and creates toxins in our body. This is why the calm space is so valuable."
6. *Expanding the calm space:* "Right now your calm space is only that empty space between the door handle and the monitor. We can expand that space so you can be calm even while you're remembering past events or future concerns. When you're in this calm space, you are producing a peptide of calm and peace. (At this point, facilitator checked in with person to confirm that they were feeling only calm and peace. If so, process proceeded. If not, then whatever emotion was present would be the first emotion addressed in step 7). It turns out that our memories all store with these same peptides. For instance if you got a speeding ticket and your emotion was anger, then when you remember that event, you can recall the feeling of anger, and that would take you out of this calm space. We can use a simple peptide exchange process so that you can be calm even when you remember that speeding ticket. And this process can work no matter what memory or future concern you bring to mind."
7. *Peptide Exchange Process:* "From this calm space, I want you to observe the emotion that you feel about your fibromyalgia. Because you brought up your feelings about fibromyalgia, the emotional peptides about your fibromyalgia are fragile and they can be replaced with these calm peptides. Your feeling may be the same, or it may be different, or you may be completely calm as you check in with your emotion about fibromyalgia. Let me know what you observe."
8. *Iteration:* The process then continued in a back and forth manner, with the patient sharing what they observed each time they checked in with their emotions, memories, or physical pain.

9. *Observing the movie of your life:* The image of a person sitting in a theater and watching a movie is useful. Patients were told, “you don’t make this movie or analyze what shows up on the screen, just sit in the theater and watch the movie. Observe it for whatever emotions, physical sensation, memories or events show up on the screen.” Note that if a person felt an emotion, they would usually also be able to describe a place in the body where they also felt a sensation – such as stomach nausea, a tightness in the throat, jaw pain, headache, or chest ache. Once something showed up for the patient on their movie screen, the facilitator helped them return to the calm state for more calm peptides to replace with the non-calm peptides. If the movie contained a lot of strong emotion, it was useful to repeat some or all of step four for helping the patient return to the calm state. If the movie did not overly excite the patient, they could more easily return to the calm state, sometimes simply by directly observing the space with nothing in it.
10. *Exchanging emotional peptides:* Each time a patient returned from the calm state back to the former issue, there was almost always a change. The particular emotion observed around a specific memory usually became calm during the exchange process. Then either a new emotion was observed, or else the only emotion around the memory was calm and peace. Once a person became calm about the issue, it became contained within their circle of calm experience. They could observe the issue anytime in the future, and they would likely remain calm even in the presence of memories that formerly carried a high emotional charge.
11. *Pain checks:* As emotions and memories became calm, decreases in observed fibromyalgia pain were typically observed. Sessions lasted between 15 and 90 minutes, iteratively going back and forth between the calm state and the movie until the issues were calm. During the session, periodic checks were made as to the level of physical pain. Once a person’s fibromyalgia pain level began to drop a little bit, in this study, the pain usually either completely disappeared or almost completely disappeared. In only one instance did fibromyalgia pain get only marginally better once a person entered the calm state. As fibromyalgia pain levels decreased, the facilitator continued to ask about emotions or memories that came up in association with the pain. The facilitator assisted the patient in following the trail of whatever arose during the session. As issues became calm one after the other, fibromyalgia pain levels continued to decrease and for 80% of the patients, to disappear completely.
12. *Ending the session:* A session could be ended at any time the patient felt they were in a calm state. Once a decision was made to begin wrapping up a session, the same iterative process was used to calm whatever had already arisen without bringing any new issues into the session. A session did not end until the patient observed they were in a calm state.

13. *Resources for the patient*: At the end of each session a printed resource was provided which explained the ICE process they had experienced. Included in the resource were references to where they could learn more about the theory behind the process, instructions for using the process on their own, and contact information if they wished to set up additional sessions.

Patients were advised that if they were leaving with a zero pain level, they could expect to remain pain free unless their fight-or-flight mechanism got reactivated. "Because there are lots of issues and experiences in your life, it's likely that there are other issues besides what we covered today. If those issues do retrigger your pain, you will probably be able to come back to zero pain again by using the ICE method again, either on your own or with a facilitator. You are welcome to get in contact with me in the future and we can schedule a visit, either in person, by phone, or by Skype."

14. *Encouragement and departure*: As patients left it was explained that instead of being in fight-or-flight mode all the time, the calm state could become a person's default state. Patients were encouraged to note that as they walked through the examination room door they were in the blank space between the left and right doorframe. The same was true of the hallway. And the road home had a left side, a right side, and a space in between. There was a space between two trees, between my words, a space between footsteps, a space between two breaths. Patients left with the invitation to access the space between two points on a continuous basis and to begin living their life from the calm space.

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