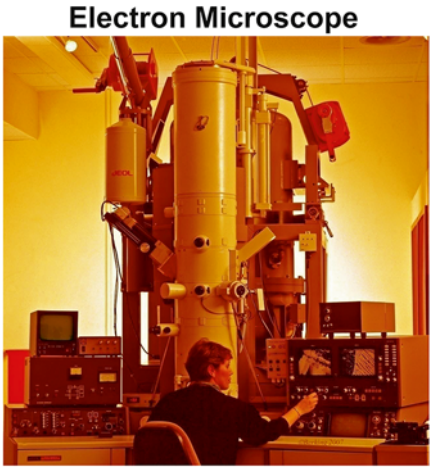
Chapter 11
Module Three: Psychoeducation Part II (The Importance of Regular Practice)

Successful acquisition and utilization of the ART Skills depends on regular practice of the skills by the participants during the intervals between training sessions and also after the sessions have concluded. For many participants, however, regularly taking time out of their busy day to practice the skills is a challenging task. To encourage and motivate participants to engage in daily practice of the skills, the ART therapist should facilitate a structured discussion on the need for regular training. The following slides and instructions provide an example of this discussion for ART therapists.

The therapist continues speaking to the participants:

Slide 37: Now that we've spent time learning ART Skills #1 and #2, we want to spend some time talking about the importance of practicing the ART Skills daily between our training sessions. Besides just telling you that regular practice is important, we will explain how regular practice affects the brain in ways that help us make positive changes in our lives.

M. Berking and B. Whitley, *Affect Regulation Training: A Practitioners' Manual*,
DOI 10.1007/978-1-4939-1022-9_11, © Springer Science+Business Media New York 2014

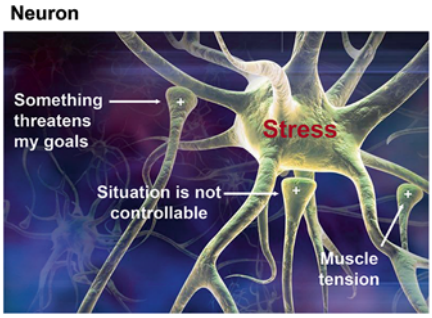


Slide 38: It goes without saying that it takes practice to master difficult skills. However, we've only recently begun to understand the reasons why practice is so important. As already mentioned, developments in modern technology over the last few years have enabled us to look straight into the brain, such as by using an electron microscope as shown here.

© Jeff Johnson, Hybrid Medical Animation, mod. by M. Berking

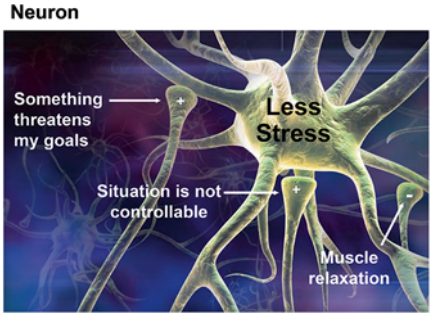
Slide 39: The brain is comprised of approximately 100 billion nerve cells called neurons. This slide shows a microscopic view of an individual neuron. Each neuron receives information from a multitude of other neurons through electrical and chemical signals. These signals either inhibit or activate the neuron. When a neuron is activated to a certain threshold, it sends a signal on to other neurons.[1]

[1] For those interested in learning more about neurons, refer to the Wikipedia article at http://en.wikipedia.org/wiki/Neuron. Also, the website www.BrainU.org has short educational videos about neurons at http://brainu.org/movies.



© Jeff Johnson, Hybrid Medical Animation, mod. by M. Berking

Slide 40: Earlier, we talked about the role that the amygdala plays in the stress response. The amygdala consists of a large number of neurons, which tend to react together. For the moment, let's focus on just one neuron in the amygdala. If neurons from other regions in the brain report that my goals are threatened and that I may not be able to handle the threat, these neurons send activating signals to this amygdala neuron. If my muscles are tense, this amygdala neuron could also receive activating signals coming from the tense muscles. The multiple activating signals eventually reach the threshold level causing the amygdala neuron to send a signal to other neural layers in the body, such as the muscles, the respiratory center, or to the prefrontal cortex, leading to the overall stress reaction.

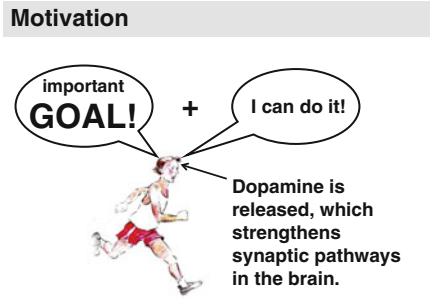


© Jeff Johnson, Hybrid Medical Animation, mod. by M. Berking

Slide 41: However, if the muscles in the body are relaxed, this same amygdala neuron could receive inhibitory signals from the relaxed muscles (*point to relevant area of slide*). Since the amygdala neuron is receiving inhibitory signals from the relaxed muscles, it will now be more difficult for the amygdala neuron to reach its activation threshold even though the amygdala neuron is still receiving activating signals from the perceived threat (*point to slide*). The significance of this is that the inhibiting signals from the relaxed muscles decrease the chance that this amygdala neuron will send activating signals to other neural layers in the body, which also decreases the overall stress reaction. This shows us the importance of strengthening neurons that inhibit the stress response, such as the neurons responsible for relaxation, in order to help us reduce negative emotions while increasing positive ones. So the big question is, "How do we do this?" The answer is … practice, practice, practice the skills offered in this training!

© *Jeff Johnson, Hybrid Medical Animation, mod. by M. Berking*

Slide 42: Through frequent practice, we activate the neurons and the connections between them, called synapses. This activation through practice causes the synapses to become stronger and even creates additional synapses. The strengthened and additional synapses allow neurons to activate more easily, including the neurons that are responsible for relaxation. An influential neuroscience researcher Donald Hebb (1949) is often paraphrased as saying "neurons that fire together, wire together."[2] Practicing relaxation, just like practicing anything else, changes the structure of the brain, so that relaxation can occur more easily in the future.



Slide 43: The processes that strengthen and increase the number of synapses tend to be even more effective when certain substances are released in the brain. One of these substances is called dopamine. Dopamine is released when we believe that our current behavior will help us eventually achieve the personal goals that we have set for ourselves. Here is what this means to you: To activate dopamine, you need to practice frequently and be aware of why you are practicing. What are your goals for the training? Why do you want to improve your emotion regulation skills? What makes this goal important enough to justify the effort and practice necessary for improving these skills? Finding your personal motivation and then being aware of your motivation (i.e., by imagining the fulfillment of your goal) while you practice is critical to fostering dopamine releases, which can lead to helpful changes in your brain.

[2] Carla Shatz, Ph.D. (director of the Shatz Lab and professor at Stanford University) is credited with this paraphrase of Hebbian theory, although the precise phrase she coined was "cells that fire together, wire together."

Slide 44: To summarize, neurons function like muscles. The more you train them, especially when you are working toward an important personal goal, the stronger they become.

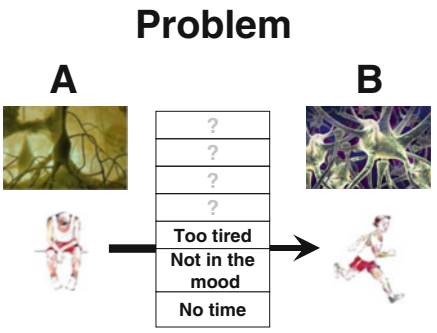
© *P. Fürstenberg, mod. by M. Berking*

Slide 45: We want areas in the brain that are responsible for relaxation, facilitating positive emotions, or inhibiting negative emotions to look like this … (*point to slide*)

© *A. Vester*

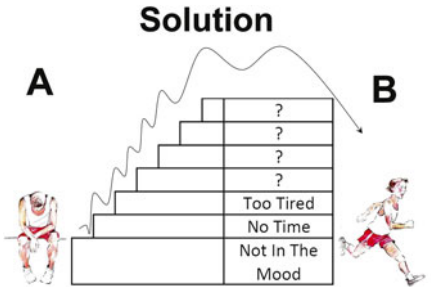
Slide 46: … instead of like this (*point to slide*), in which a lack of use has caused neurons to atrophy. If we rarely use certain neurons, these neurons and their connections will become weaker. The connections between the neurons will disintegrate, and the neurons themselves will deteriorate. Ultimately, these areas in the brain will become smaller. If you study the brains of people suffering from depression, you will find that the areas in the brain responsible for positive emotions are often smaller and the areas responsible for negative emotions and stress reactions are often larger.

Slide 47: Instead we want the areas in the brain related to stress and negative emotions to atrophy and the areas related to positive emotions and relaxation to strengthen. This can be accomplished by training with the ART Skills. We are teaching you how to "train your brain."

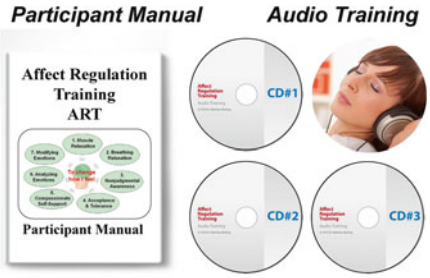


See image credits on the previous page

Slide 48: We have talked about the importance of practicing the ART Skills. But even if people make a commitment to practice, actually taking the time out of their busy schedules to practice regularly can be hard to do. Common obstacles include feeling too tired, not wanting to practice at the moment, or feeling like you just do not have the time. Could any of you see these obstacles possibly getting in your way as you try to practice the ART Skills? (*participants respond*) Can you think of any other obstacles that might make it difficult to practice? (*participants respond*)



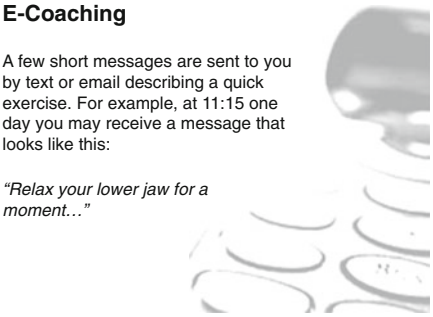
Slide 49: So how do we overcome these obstacles? Let's brainstorm ideas for how we can do this. (*The therapist solicits ideas from the participants for overcoming the obstacles they just listed. It may be helpful for the therapist to write down the participants' suggestions on a flip chart or dry erase board.*)



Slide 50: Since we all know how hard it can be to get ourselves motivated, we have thought a long time about ways we can help you develop a successful practice routine. In the end we came up with several tools that you may find helpful. These tools include (1) a participant manual, (2) an audio training program, (3) an e-coaching program, and (4) a printed training calendar.

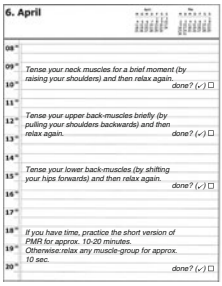
Let's talk more about each of these tools. The participant manual describes in detail the skills we are working on in the training, explains why they are important, and provides you with exercises that can be used to build these skills.

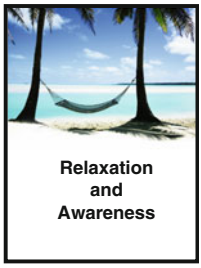
The audio training program consists of CDs containing the same ART Sequence Exercises that we practice during the training sessions. The audio training guides you through the ART Sequence Exercises with step-by-step instructions. We ask that you set aside 20 min each day to practice one of the ART Sequence Exercises using the audio training program. We know that finding 20 min each day can be difficult. However, we strongly encourage you to make the choice to take this time each day to practice the skills that can help you make positive changes in your life.



Slide 51: In addition to the audio training program, we encourage you to utilize the ART e-coaching program as well. The e-coaching program will send you a few short exercises each day either by text message or by email. Each exercise will only take a few minutes of your time. For example, at 11:15, you might receive a text message or email saying, "Relax your lower jaw for a moment." You can focus on relaxing your jaw for about 3 s and then continue going about your day.

ART Printed Training Calendar:





Slide 52: The same short exercises that can be received via text message or email are also available in a printed version in the training calendar.

Whether you use the printed training calendar or the e-coaching tool, practicing these short exercises just a few times a day will help you resist falling into old vicious cycles, especially when the short exercises are practiced alongside the ART Sequence Exercises contained in the audio training program.

What is the positive goal you want to attain through intense training of the ART Skills?

Slide 53: However, regardless of how many helpful tools we provide you with, the training will still require substantial time and effort. Ultimately, it depends on you deciding whether this effort is worthwhile and whether you want to invest your time and energy strengthening your emotion regulation skills. We spent some time in the beginning of the training thinking about the goals each of you have for yourselves. So we invite you to think again about what goals you hope to achieve by participating in this training. *The therapist passes out copies of the Personal ART Goal Worksheet* (Appendix E). Take a few minutes to think about your goals and then write some of them down on the worksheet.

Note to the therapist:

Provide a few minutes for the participants to remember and write down their goals. The therapist then reminds the participants that they could simply choose to only attend the sessions and not practice at home. However, should they in fact choose this option, they will not get the full benefits of the program. If they instead want to get the full benefits and maximize their chances to accomplish their personal goals, they should consider committing to the suggested daily practice consisting of the ART Sequence Exercise for 20–30 min using the audio training program and two to six short exercises, each taking only 10–30 s, using the e-coaching program or the printed training calendar.

The therapist then asks the participants if they are willing to create a personalized training schedule for themselves that lists the days and times they will commit

to practice the ART Sequence Exercises. Asking this question does create a chance that the participants will decide *not* to develop a training schedule. However, from experience with thousands of participants, this rarely occurs. This does not mean, though, that all participants actually adhere to the plan they create for themselves.

For the participants who are willing to schedule time to practice the ART Sequence Exercises, the therapist provides them with a copy of the participant manual (rewarding those who want to practice) and the audio training program CD that contains the ART Sequence Exercises. These participants are also given a copy of the Personal Training Schedule (Appendix F) to record the days and times they intend to practice the ART Sequence Exercises.

Next, the therapist asks the participants if they would be willing to practice a series of short exercises over the course of each day during the training program. Those who wish to practice these short exercises are given an option to receive the exercises by text message, by email, or on a printed training calendar.

For the participants who would like to receive the short exercises by email or text message, they should be reminded that it may be "overwhelming" to receive up to four exercises each day, so they should first "carefully decide" if they are willing to participate in this intense training method before committing to it. The participants are also told that only those who wish to "participate in an advanced level of training" should receive the short exercises by text or email. By discouraging the participants from this practice method which is "too difficult" and possibly even "overwhelming," the therapist artfully utilizes paradoxical intent to encourage participants to use this practice tool.

In our experience, most participants choose to receive the short exercises by text or email. The therapist records the cell phone numbers and email addresses for the participants who wish to receive messages by text or email. After the session, the therapist initiates the system to deliver the text messages and emails through the ART website at www.AffectRegulationTraining.com—with access code: ART_Pcn2cfY. For those participants who wish to practice the short exercises, but do not want to receive the exercises via text or email, the therapist may give them a printed daily calendar that lists the short exercises to be performed each day. The daily calendar may be downloaded from the ART website using the access code: ART_Pcn2cfY.

The challenge for ART therapists at this point is to present the various training tools in a way that communicates to the participants that they are completely free to practice or not practice if they choose, but at the same time providing strong arguments (e.g., no pain—no gain) to encourage them to use the tools. Ideally, all participants would ultimately decide to practice using the available tools.

Reference

Hebb, D. O. (1949). *The organization of behavior: A neuropsychological theory*. New York, NY: Bantam Books.