The Study of Cognitive Rehabilitation Effectiveness

The SCORE clinical trial is a randomized controlled treatment trial evaluating the effectiveness of cognitive rehabilitation in post-deployment military service members who sustained a concussion.

Chapter 5: Integrated Behavioral Health and Cognitive Rehabilitation Interventions for Persistent Symptoms Following Mild Traumatic Brain Injury (SCORE Arm 4)

Part V: Clinician Guide to Individual Behavioral Health Therapy Protocol

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SCORE Disclaimer

The view(s) expressed herein are those of the author(s) and do not reflect the official policy or position of Brooke Army Medical Center, the U.S. Army Medical Department, the U.S. Army Office of the Surgeon General, the Department of the Army, the Department of Defense, the Department of Veterans Affairs, or the U.S. Government.

Chapter 5:
Integrated Behavioral Health and Cognitive Rehabilitation Interventions for Persistent Symptoms Following Mild Traumatic Brain Injury (SCORE Arm 4)

Part V:
Clinician Guide to Individual Behavioral Health Therapy Protocol

Session 1: Intake Session (90 Minutes)

Materials Needed: Intake Forms, Outcome Measures, Client Manual for Individual Behavioral Health Therapy Protocol

Orient Patient to Purpose of Visit (1-2 Minutes)

Patient completes intake forms (10 minutes).

Explain limits to confidentiality (1-2 minutes). Inform if therapist is trainee status and who supervises trainee. Refer to ***Client Manual: Session 1: Setting Goals for Therapy.***[1]

Conduct clinical interview and rapport building (30-40 minutes). Optional: Can use standardized traumatic brain injury (TBI) assessment template

- Referred from initial brain injury rehabilitation provider as a standard part of comprehensive TBI evaluation
- Purpose for today:
  - Get to know you
  - Identify relevant strengths/weaknesses
  - Set goals for how to address any identified problems in therapy

[1] *Note: Sections of the client manual will be referred to hereafter as* ***manual****, followed by the appropriate section title, in bold and italic.*

Present Conceptualization to Patient (5 Minutes)

Include feedback on intake measures. Focus conceptualization on the overlap of identified stressors with cognitive dysfunction.

Manual: Your Problem Inventory. Identify/prioritize the most salient problems.

Reformulate Identified Problems into Positive Goals for Therapy (10 Minutes)

Discuss advantages of solution-focused versus problem-focused approach.

- ***Manual: The Miracle Question***
- ***Manual: Setting Positive Goals***

Begin Socialization to Therapy (1-2 Minutes)

In broad terms, explain what the patient can expect about the number of sessions and the general structure of each session (i.e., desire for a good balance between interactive, experiential, and with some didactic portions).

Encourage honest patient feedback in building collaborative therapeutic relationship and keeping therapist/patient on the same page.

Obtain consent to continue.

Provide Basic Psychoeducation on the Stress Response (10-15 Minutes)

Explain that this comprises first part of plan to reach identified goals.

Explain how the stress response is a manifestation of the fight-or-flight response:

- Components of the fight-or-flight response
- Abdominal breathing as a method for managing the fight or flight response
  - Cascading effect on other fight-or-flight components
  - Emphasize importance of regular practice to develop muscle memory
    a. Will not work if you wait to use when in crisis
    b. Practice at least twice daily for 5-10 minutes
    c. For the first day or two, focus only on breathing correctly, then begin formal practice using ***manual: Instructions for abdominal breathing***.

Homework (1-2 Minutes)

- Practice abdominal breathing twice daily for 5-10 minutes
- Review ***Session 1*** in ***manual***, including: ***The Miracle Question*** and ***Setting Positive Goals***

Session 2: Introduction to Cognitive-Behavioral Therapy

Materials Needed: Client Manual

Rapport Building and Review (5-10 Minutes)

- Check in
- Review topics covered in previous session
- Review progress with ***manual exercises: The Miracle Question, Setting Positive Goals***

  Assist with reformulating positive goals as needed
- Review progress with breathing retraining

Review Agenda for Today (1-2 Minutes)

1. Talk about how thoughts and feelings are connected
2. Learn how to identify your unhelpful thoughts

Education on Basic Cognitive-Behavioral Psychotherapy Principles (10-15 Minutes)

Manual: Session 2: Introduction to Cognitive-Behavioral Therapy

Use ***manual: Cognitive-Behavioral Therapy Model*** to illustrate the connection between thoughts, feelings, and behavior.

- Use diagram to illustrate the following general concept:
  - Situation → thoughts → reactions
  - Teaching metaphor of mind as a computer (i.e., input → processing → output)
  - Influence vs. control - Emphasize that although thoughts can have a strong influence over reactions, they don't directly control them (e.g., you always have a choice how you respond)
- Use diagram to illustrate a specific example of Situation → unhelpful thoughts → undesirable reactions (i.e., unpleasant feelings, unhelpful behavior)
- Attempt to have patient identify an example from his/her own life that resulted in strong unpleasant feelings and use the diagram to map it out
  - If possible, prompt patient for an example where a cognitively challenging situation led to an undesirable reaction
  - If insight is poor, have patient instead identify a more straightforward example

Education on Automatic Thoughts (10-15 Minutes)

Begin by labeling the identified thought from ***manual: Diagram: The Cognitive-Behavioral Model*** as an example of an "automatic thought."

Define automatic thoughts

Automatic thoughts occur in that portion of your mind that is dedicated solely to analyzing, evaluating, and judging everything that happens throughout the day.

- Everyone has them
- Usually comprised of judgments about:
  - Yourself
  - Others
  - The world around you

Although these thoughts often go unnoticed, they occur constantly throughout the day. Automatic thoughts can have a strong influence on our emotions and behavior.

Use a teaching metaphor of the mind as a scrolling billboard in Times Square or a 24-hour news radio station.

- Can be thought of as "knee-jerk" or "reflex" reactions to your environment, usually not well reasoned or thought out
- Strong emotional reactions are often a good indication that you are experiencing a flood of automatic thoughts

Briefly review ***manual: Diagram: Cognitive-Behavioral Model*** once more to reestablish order of Situation → Thought → Reaction

What is the function of automatic thoughts?

- Advantage:
  - Can increase the efficiency of thought processes
  - Like being on "auto pilot" (e.g., driving to work or other routine tasks)
- Disadvantage:
  - Prone to inaccuracy
  - Can inhibit ability to respond adaptively to the environment, because they are not based on "all" the facts
  - Are often biased, that is, not based on the facts of the situation, but instead on your core beliefs about yourself, others, and the world around you

  Will get more into this in later sessions

The Thought Record (5 Minutes)

Purpose of the Thought Record

Explain that the purpose of the Thought Record is the following:

- Develop better insight into your automatic thoughts and the reactions they produce
- Eventually be able to identify patterns of commonly occurring automatic thoughts
- Better identify when automatic thoughts are occurring in real time
  - For now, only introduce Situation, Emotion, and Thought columns
  - Start by having patient transfer his or her initial diagrammed example from the ***manual: Diagram: The Cognitive-Behavioral Model*** into the Thought Record format
  - If time permits, have patient generate a second situation to diagram on the Thought Record

Homework (2 Minutes)

- Review ***manual: Session 2: Introduction to Cognitive-Behavioral Therapy***
- Complete ***manual: Thought Record***
  - Have patient set initial goal for number of daily entries (minimum is one)
  - Emphasize that identifying automatic thoughts on your own will initially be very difficult
    a. Remind once more that automatic thoughts are usually composed of judgments about yourself, others, or the world around you
    b. Refer patient to ***manual: Automatic Thoughts*** for additional guidance on identifying automatic thoughts

Session 3: Defusion (50 Minutes)

Materials Needed: Manual, Clipboard

Rapport Building and Review (10 Minutes)

- Check in
- Review progress with breathing retraining
- Review topics covered in previous session
- Review progress with ***manual exercise: Thought Record***
  - Continue to focus only on Situation → Thought → Reaction
  - Focus specifically on helping patient "drill down" to identify automatic thoughts, if needed

Review Agenda for Today (1-2 Minutes)

1. Become more familiar with how your mind works (anatomy of the mind)
2. Evaluate effectiveness of past attempts at controlling unpleasant thoughts and feelings (i.e., creative helplessness)
3. Consider an alternative approach to dealing with unpleasant thoughts and feelings

Anatomy of the Mind: Thinking Versus Observing (3-5 Minutes)

Thinking self

The "thinking self" constantly analyzes, compares, and judges you, others, and the world around you in the form of automatic thoughts. Remind patient of **teaching metaphors**: The mind as (a) a billboard in Times Square or (b) a 24 hour news radio station

Observing self

The "observing self" is similar to the concepts of metacognition and selective attention.

Teaching metaphor: mind as a stage show

On the stage are all our thoughts, our feelings, as well as our present experience (everything that we can see, hear, touch, taste, and smell). The observing self is that part of us watching the stage show, able to selectively attend to any part of the show, or just step back and take it all in at once

People spend the majority of their time hooked on the products of the thinking self. The problem is:

- These thoughts are largely negative (research suggests as high as 80%), inaccurate, and unhelpful (i.e., automatic thoughts) → Contribute to unpleasant emotions
- They distract us from our present experience/the task at hand (thus contributing to cognitive problems such as attention and memory)
- Bottom line: they are counterproductive in that they keep you from achieving your goals in life

The Myth of Control[1] (15-20 Minutes)

Teaching metaphor: thoughts on a clipboard

Pick up a clipboard and write down a few of the automatic thoughts that the patient recorded over the previous week. Hold the clipboard up and say something to the effect of:

"I want you to imagine that this clipboard represents not just the thoughts you recorded from the past week, but all the difficult thoughts and feelings that you have been struggling with for so long. And I'd like you to take hold of it and grip it as tightly as you can so that I can't pull it away from you."

(Patient grips it tightly)

"Now I'd like you to hold it up in front of your face so you can't see me anymore – and bring it up so close to your face that it's almost touching your nose."

(Patient holds the clipboard in front of face)

"See, what often happens, is that we might be going about our daily business trying to accomplish something important" (give some relevant examples from home and work) "and then something goes wrong and all of these difficult thoughts and feelings pop up right in front of our face. Now just out of curiosity, what's it like trying to have a conversation with me while you're all caught up in your thoughts and feelings like that?"

(Patient responds)

"Do you feel you are able to connect with me, engage with me, or read the expressions on my face?"

(Patient responds)

"If I were doing a song-and dance-routine now, would you be able to see it?"

(Patient responds)

"And what's your view of the room like behind all of those difficult thoughts and feelings?"

(Patient responds)

"So while you're completely caught up behind all of that stuff, you're missing out on a lot. You're disconnected from the world around you, and you're disconnected from me. Notice too, that while you're holding on tightly to this stuff, you lose the ability to do the things that make your life work. Check it out – grip the clipboard as tightly as you possibly can."

(Patient tightens grip)

"Now if I asked you to hug someone you love, or drive a car, or grill a steak, or type on a computer while you're holding on tightly to this, could you do it?"

(Patient responds)

"So while you're all caught up in this stuff, not only do you lose contact with the world around you and disconnect from your relationships, but you also become incapable of taking effective action to do the important things that make your life work. It basically takes all your attention and focus away from whatever important task you are trying to accomplish."

"Is it alright if I just drag my chair a little closer so I'm sitting beside you? There's something else I want to demonstrate."

(Patient responds)

"Could I have the clipboard back for a moment?"

(Therapist takes the clipboard back)

"Okay. What I'd like you to do is place both your hands flat on one side of the clipboard here, and I'm going to put my hands on the other side, and I'd like you to push the clipboard away from you. Push firmly, but don't push so hard you knock me over."

(Patient pushes back)

"And just keep pushing. You hate this stuff, right? You hate these thoughts and feelings and you want to get rid of them. So push hard, try to make them go away."

(Therapist pushes back against the patient)

"So here you are, trying very hard to push away all these painful thoughts and feelings. You've been doing this for years, and have they gone anywhere?"

(Patient responds)

And as you engage more and more in this struggle, what happens to your ability to actually perform whatever task you are trying to accomplish?"

"So it seems like the more you try to control or get rid of these difficult thoughts and emotions, the worse things seem to get." (Discuss how this unsuccessful struggle for control feeds back into their initial emotional state. Often this has the effect of actually amplifying those unpleasant emotions.)

Utility of using control strategies to manage external versus internal experiences

Humans are very adept at controlling their external experience. Prompt patient to give various examples of this from everyday life (e.g., hunger, flat tire, avoiding things that are aversive). Optionally, talk about this from an evolutionary perspective (e.g., invention of the wheel, use of tools, fire)

As a result of this success, we often attempt to utilize similar control strategies to manage our internal experiences as well (i.e., getting rid of, or changing, unpleasant thoughts and emotions)

Maybe this solution (i.e., control) is actually part of the problem? What happens when we attempt to control our thoughts and emotions and fail?

Often, this just creates additional struggle and serves to amplify whatever unpleasant emotions we are experiencing. It also distracts our attention from the present situation/task at hand, further disrupting cognitive functioning.

If patient agrees that this is what they've been trying to do to deal with unpleasant thoughts and feelings, prompt for examples of how well this strategy this has worked for them in the past.

Teaching metaphor: yellow Jeep[2]

Illustrate the futility of trying to "control" thoughts by briefly describing for the patient a yellow Jeep and then asking him or her to close the eyes and "think about anything else but that yellow Jeep for the next 20 seconds." Process how difficult this was for the patient.

Alternatives to control: back to the clipboard

Pick up the patient's automatic thoughts clipboard again.

"Okay, now let's try something else. Is it okay if now I just place this clipboard on your lap, and we just let it sit there?"

(Patient responds; therapist places clipboard in patient's lap)

"Now, remember how you were pushing before, isn't this a lot less effort?"

(Patient responds)

"Notice that you are now free to invest your energy in doing something constructive. If I asked you now to grill a steak, or hug a loved one – now you could do it, right?"

(Patient responds)

"And what's it been like to have a conversation with me now as opposed to doing this"

(Therapist mimes pushing the clipboard away)

"or this"

(Therapist mimes holding the clipboard up in front of face)

"Do you feel more engaged with me? Can you read my face now?

(Patient responds)

"Notice, too, that you now have an unobstructed view of the room around you. You can take it all in. If I started doing a song-and-dance routine, you'd be able to see it, right?"

(Patient responds)

"But those thoughts and feelings are still there, and I know you don't want them. Who would? Notice, however, that this stuff is now having much less impact on you. Now I'm sure that in the ideal world you'd like to do this."

(Therapist mimes throwing the clipboard on the floor)

"But here's the thing. You've been trying to do that for years. And yet, despite all that effort, they're still showing up. They're still here today."

(Therapist points at the clipboard in the patient's lap)

"Sometimes you are probably able to make this stuff go away for a short while, but it soon comes back again. And when it comes back, isn't it the case that it somehow seems to become bigger and heavier than it was before? So even though every instinct in your body tells you to push them away, that strategy doesn't seem to be having the effect that you want. It's really just making things worse."

"So here is what I propose. We don't want to do any more of what doesn't work. Instead we're going to learn some skills that will enable you enable to handle difficult thoughts and feelings far more effectively – in such a way that they have much less impact and influence over you. So instead of doing this"

(Therapist picks up clipboard and holds it in front of face)

"or this"

(Therapist mimes pushing clipboard away)

"you can do this"

(Therapist drops the clipboard into his/her lap and lets go of it)

"And notice, this not only allows you to be more connected with the world around you and to engage in what you're doing, but it also frees you up to take more effective action on things that are important. When you're no longer struggling against this stuff, or absorbed in it, or holding on to it, you are free. That allows you to put more time and energy into doing the things that improve your quality of life – like hugging loved ones or grilling a steak or even staying more on top of things in your daily life. How does that sound to you?"

Optional teaching metaphor for further clarification: Tug of War

"Imagine you're in a tug-of-war with a huge monster (i.e., anxiety, depression). You've got one end of the rope, and the monster has the other end. And in between you, there's a huge bottomless pit. And you're pulling backward as hard as you can, but the monster keeps on pulling you ever closer to the pit. What's the best thing to do in that situation?

(Typically will respond: pull harder)

Well, that comes naturally, but the harder you pull, the harder the monster pulls. You're stuck. Any other ideas?

(Prompt if needed)

That's right, you could drop the rope. When you drop the rope, the monster's still there, but now you're no longer tied up in a struggle with it. Now your time and attention is freed up so you are better able to accomplish what you wanted."

Summary

Instead of trying to change, control, or fight against our thoughts and emotions, what we really need to do is:

- Be able to realize when we have become hooked on our thoughts (the thinking self)
- Practice techniques that will allow us to redirect our attention (i.e., distance ourselves) back onto the present moment/task at hand

Introduce Concept of Defusion (10 Minutes)

Fusion versus Defusion

- **Fusion**. Getting "hooked" or caught up in the struggle with your thoughts and thus allowing them to dominate your feelings and behavior
  - Will be an unsuccessful struggle and results in amplifying unpleasant emotions
  - Inhibits adaptive behavior by distracting your attention
  - Overall, wears you out and takes your time and attention away from more meaningful activities
- **Defusion**. Separating, distancing, or "unhooking" from your thoughts, letting them come and go instead of being caught up in them or trying to control them
  - Thoughts are still there, but put in their place
  - No longer just assumed to be accurate or truth
  - Benefits:
    a. By taking your thoughts more lightly, they are less able to amplify and prolong unpleasant emotions
    b. Improves your ability to accomplish the task at hand

Defusion Techniques[1]

There are many techniques that can help you unhook from automatic thoughts. Review **manual: Defusion Techniques.**

Exercise: Choose an automatic thought that was previously used in the clipboard example. Use that thought to practice a few defusion techniques in session.

1. First instruct patient to try to fuse, or get caught up in the thought for 10 seconds
2. Then help patient use a few different techniques to defuse the thought
3. Discuss patient's reactions to each technique and ask whether he or she felt able to gain any distance from the thought (i.e., unhooking)

For example, remind the patient of clipboard metaphor as the thought being right in front of his or her face, and then ask "Now, can you just show me with your hands and arms where the thought seemed to move to?"

From now on, you can seize opportunities in subsequent sessions to start helping the patient identify fusion during real time discourse, and use this as an opportunity to practice defusion techniques.

Note: If this is technique is done carelessly, it can come across as invalidating, so it is important that the therapist does this in a *compassionate* and *validating* way.

Homework (2 Minutes)

- Review ***manual: Session 3: Defusion***
- Continue to complete ***manual: Thought Record***
- **CORE SKILL**: Have patient review ***manual: Defusion Techniques*** and select at least two to three to begin using regularly to defuse automatic thoughts in real time, as well as later using the Thought Record

Session 4: Cognitive Distortions (50 Minutes)

Materials Needed: Manual, Mindfulness Recording, Mindfulness CD for Patient

Rapport Building and Review (10-15 Minutes)

- Check in
- Review progress with breathing retraining
- Review topics covered in previous session
- Review progress with ***manual: Thought Record***
  - Continue to focus only on Situation → Thought → Reaction
  - Continue to help patient "drill down" to identify automatic thoughts if needed
  - When applicable, use examples from the Thought Record to again illustrate the function of unhelpful thoughts and emotions as disconnecting from the present moment/task at hand
- **CORE SKILL**: Review progress with utilizing defusion techniques in ***manual: Defusion Techniques***
  - Use as much time as needed on this during session
  - Normalize any struggles patient is having using the defusion strategies

If having trouble recognizing when to utilize strategies in real time, review discussion of strong unpleasant emotions as an indicator of automatic thoughts. If insight remains poor, talk about the physical experience of unpleasant emotions and how to use physical sensations as an indicator of automatic thoughts.

If patient is showing signs of frustration with the technique, utilize the opportunity to build insight and practice a defusion technique in session. Otherwise, devote some time for practice using examples from Thought Record.

Review Agenda for Today (1-2 Minutes)

- Introduce a new technique to help you defuse unhelpful thoughts
- Learn how our thoughts about ourselves and the world around us are systematically biased, distorted, and often inaccurate
- Identify common patterns of distorted thinking
- Goal is to develop better awareness for when this is happening to you in real time

Mindfulness Reintroduction (15-20 Minutes)

Review patients' understanding of mindfulness as a technique to improve attention and present-focus.

- Do they understand that mindfulness is not a method of thought "control" but simply a means of refocusing and sustaining attention?
- What benefits have they gained from the technique? Are the benefits restricted to attention?
- If necessary, prompt the patient to report experiencing any positive impact on their mood after completing a mindfulness exercise?

Explore with patient why mindfulness might have a positive impact on mood by breaking it down to its core components. Compare the similarities of these components to the defusion strategies learned in Session 3. Point out that defusion strategies are actually a form of mindfulness practice. Similarities include:

- A view of thoughts as sometimes playing an unhelpful role in daily life
- Noticing that you have been "hooked" on your thoughts (products of the thinking self), which has caused you to become disconnected or distracted from the present moment/task at hand
- Using improved metacognitive awareness (in the form of a strategy or technique) to refocus your attention back toward the present moment/task at hand
- Although attention regulation is the skill that is being practiced, a byproduct of this process is that your time and energy are freed up from unpleasant or ruminative thoughts and allowed to be focused on valued activities to improve quality of life.

Summarize for patient that mindfulness and defusion are, therefore, synonymous, and can be viewed as a set of techniques that are helpful for attention regulation as well as mood

Orient patient to new mindfulness exercise (The Observing Self audio recording)

Obtain verbal consent from patient before beginning the mindfulness exercise.

Review that the patient will be asked to close his or her eyes and find a relaxed and comfortable sitting position during the exercise, which will last for approximately 10 minutes

Review that, time and time again, the patient can expect to get caught up on external and internal distracters (especially thoughts), and that this is normal and ok. The real task is for the patient to become more adept at realizing when this has happened and work on gently refocusing toward the target stimuli.

Review that patients occasionally can experience some uncomfortable feelings (e.g., anxiety) during first attempts at mindfulness practice. If this occurs, encourage patient to simply continue to follow the guided instructions to refocus attention. In the rare circumstance that a patient might experience severe emotional distress, he or she may choose to either open the eyes while continuing the exercise or discontinue

Ask the patient to close the eyes, find a comfortable position, and begin abdominal breathing. After 15 to 20 seconds of silence, start the audio recording. Although the recording lasts 20 minutes, there

is a bell that will signal when the 10-minute point has been reached. The patient can stop the recording then.

If for some reason the patient cannot tolerate the full 10 minutes, try 3-5 minutes for the first practice with a goal of progressing to 5-7 minutes and then to 10 minutes as tolerated in successive sessions. The patient's homework exercises should correlate with whatever length is tolerated in session, with a stated goal of increasing to 10 minutes.

Make sure to participate in the exercise alongside the patient. The patient will feel less uncomfortable that way, and it is usually more effective.

Process reaction to mindfulness exercise

Take a few minutes after completing the exercise to briefly process the patient's reaction to the mindfulness exercise. Do they feel more present focused? Centered? Did they initially feel any paradoxical effects? What else did they experience?

Emphasize that, although the practice of mindfulness is deceptively simple and similar to defusion, it is a skill that can never completely be mastered. However, with practice it is possible to become relatively proficient at sustaining and selectively attending a stimulus.

Provide patient with an audio recording of the mindfulness exercises used thus far, which focus successively on breath, body, and the observing self.

Introduction to Cognitive Distortions (5 Minutes)

What are cognitive distortions?

- Composed of common types of automatic thinking, which we habitually develop over time
- May appear rational at first glance, but often contain errors in thinking and logic
- May be very common types. Review list of common cognitive distortions and give examples of each
- Complete cognitive distortions handout in ***manual: Session 4, Identifying distorted thinking patterns***

Why is it useful to identify cognitive distortions?

Helps you to more quickly and efficiently identify and categorize automatic thoughts in real time

Introduce the cognitive distortions column of the Thought Record (10 minutes)

- Review ***manual: Thought Record***
- Exercise: Identify cognitive distortions for situations recorded thus far by patient
- Prepare patient for possible negative (counter-therapeutic) reactions that may occur as a function of becoming more aware of cognitive distortions (2 minutes)

Homework (2 Minutes)

- Review ***manual: Session 4: Cognitive Distortions***
- Continue to complete Thought Record in ***manual: Thought Record***, from now on adding the Cognitive Distortions column
- **CORE SKILL**: Continue to utilize at least at least two to three defusion strategies to regularly defuse automatic thoughts in real time
- Listen to the first 10 minutes of each of the three mindfulness exercises once this week on separate days

Session 5: Schema^3 (50 Minutes)

Materials Needed: Manual, Mindfulness Recording, 3x5 Index Card

Rapport Building and Review (10-15 Minutes)

- Check in
- Review progress with breathing retraining
- Review topics covered in previous session
- Review progress with ***manual exercise: Thought Record***
    - Continue to focus on Situation → Thought → Reaction
    - Discuss cognitive distortions patient has identified
    - When applicable, use examples from the Thought Record to again illustrate the function of unhelpful thoughts and emotions as disconnecting from the present moment/task at hand
- **CORE SKILL:** Review progress with utilizing defusion techniques in ***manual : Defusion Techniques***.
    - Use as much time as needed during this session
    - Normalize any struggles patient is having utilizing the defusion strategies

If having trouble recognizing when to utilize these techniques in real time, review discussion of strong unpleasant emotions (see Session 2: Introduction to Cognitive-Behavioral Therapy) as an indicator of automatic thoughts. If insight remains poor, talk about the physical experience of unpleasant emotions and how to use physical sensations as an indicator of automatic thoughts.

If patient is showing signs of frustration with the technique, use the opportunity to build insight and practice a defusion technique in session. Otherwise, devote some time for practice using examples from Thought Record.

Review Agenda for Today (1-2 Minutes)

- Conduct a mindfulness exercise
- Become more aware of your core beliefs (schema) and how they influence your interpretations of everyday events
- Learn to distinguish between adaptive (helpful) and maladaptive (unhelpful) schema
- Consider how selective attention works to reinforce maladaptive schema

Mindfulness Exercise (5-10 Minutes)

Review patient's experience with mindfulness practice since last session. What benefits have they gained from the technique? Are the benefits restricted to attention?

Remind patient that mindfulness is not a method of thought "control" but simply a means of refocusing and sustaining attention. Although attention regulation is the skill that is being practiced, pleasant feelings such as relaxation can sometimes be a byproduct of this process

Initiate mindfulness exercise (The Observing Self audio recording)

Obtain verbal consent from patient before beginning the mindfulness exercise.

Review that the patient will be asked to close the eyes and find a relaxed and comfortable sitting position during the exercise, which will last for approximately 5 minutes. This is before the 10-minute bell, so the therapist must informally time it.

Review that time and time again the patient can expect to get caught up on external and internal distracters (especially thoughts), and that this is normal and ok. The real task is for the patient to become more adept at realizing when this has happened, and work on gently refocusing toward the target stimuli.

Review that patients occasionally can experience some uncomfortable feelings (e.g., anxiety) during their first attempts at mindfulness practice. If this occurs, encourage patient to simply continue to follow the guided instructions to refocus attention. In the rare circumstance that a patient might experience severe emotional distress, he or she may choose to either open the eyes while continuing the exercise, or discontinue.

Ask the patient to close the eyes, find a comfortable position, and begin abdominal breathing. After 15-20 seconds of silence, start the audio recording. Although the recording lasts 20 minutes, there is a bell that will let you know when the 10-minute point has been reached. The patient can stop the recording then.

If for some reason the patient cannot tolerate the full 10 minutes, try 3-5 minutes for the first practice with a goal of progressing to 5-7 minutes and then to 10 minutes as tolerated in successive sessions. The patient's homework exercises should correlate with whatever length is tolerated in session, with a stated goal of increasing to 10 minutes.

Make sure to participate in the exercise alongside the patient. The patient will feel less uncomfortable that way, and it is usually more effective.

Introduction to Schema[3]

Review ***Manual: Session 5: Schema*** (10-15 minutes)

Help patient to identify relevant themes of automatic thoughts that have been revealed in the patient's Thought Record.

Identify these themes as "schemas," which are essentially **"stories"** we create over time about ourselves, others, and/or the world around us. They are woven together from collections of automatic thoughts over time.

Important points about schemas[3]

- Fundamental beliefs that affect the way we interpret our everyday experiences
  - Introduce systematic bias into our thought process
  - Drive automatic thoughts
  - Have a strong influence on emotions and behavior
- Often begin to take shape early in life, but can be influenced by later life experiences
  - Early belief learning examples: Parenting/modeling, peer interactions
  - Later example of events that change beliefs: Trauma, combat deployment
- Can be adaptive or maladaptive

  Review examples in the ***manual: Adaptive and Maladaptive Schemas***
- Maladaptive schema are typically enduring and self-defeating
  - "I'm not good enough"
  - "People are untrustworthy"
  - "The world is a dangerous place"

Selective attention

Because our core beliefs are very important to us, we are constantly seeking information that affirms those beliefs. This often causes us to selectively attend to only information in our environment that supports our beliefs.

Use cocktail party metaphor to illustrate selective attention.

The problem with maladaptive schemas is that they cause us to focus selectively on information that reinforces unhelpful beliefs about ourselves, thus perpetuating self-defeating thoughts and feelings.

Understanding the types of schema we use to selectively attend to our environment will help you:

- Enhance your understanding of why you think and feel the way you do
- Build awareness to help focus more on adaptive (helpful) versus maladaptive (unhelpful) schemas
- More easily identify your mind's stories in the moment to use defusion strategies
- Increase resilience to future stressors

Schema Inventory[3]

Have patient complete Schema Inventory in ***manual: Schema Inventory*** and review responses (10 minutes).

Identify consequences of these schema in terms of emotions and behavior to help patient decide whether the schema is adaptive (helpful) or maladaptive (unhelpful). Use data on reactions from the Thought Record if necessary.

Exercise: Naming the Story

"Now suppose we took all of your painful/unpleasant thoughts and feelings, and the memories that go with them, and we put them all into a documentary of your life, or an autobiography. And suppose you were to give that film or book a short title – the something something story, for example, the "I'm no good" story or the "life sucks" story – then what would you call it? And please make sure the title acknowledges and honors just how much you have suffered; don't pick a title that trivializes or makes light of it."

(Prompt the patient as needed to identify a good title)

(Take out a small index card)

"Now I'm going to write the title on the back of this index card…"

(*Flip the card over and write in all caps*)

"AHA, HERE IT IS AGAIN! THE <PATIENT'S TITLE HERE> STORY!")

"Now, let's flip it over, take a look at your Thought Record, and write several of the most common unpleasant thoughts you've had over the past 2 weeks."

"Okay, now here's what I'd like you to do, if you're willing. First, I'm going to ask you to read through all of these unpleasant thoughts on this side. Then flip the card over and read what's written on the back, and just notice what happens. Just do it in your head. Are you willing to just experiment?"

(Process patient's reaction to this)

What happened? Are they still as caught up in the story, or were they able to get some distance from it? If so, say something like "We'll, that's what we're aiming for. You can't get rid of the story, but you can learn to put it in its place."

"Now, if you want to get better at this, would you be willing to practice something between this session and the next? This may seem a bit odd, so please feel free to say no if you don't want to do it. What I'd like you to do is carry this card around in your pocket for the next week and pull it out at least 4 or 5 times a day. Read through all these negative thoughts, and then flip the card over and read what's written on the back. Would you be willing to do that?"

Homework (2 Minutes)

- Review ***manual: Session 5: Schema***
- Continue to complete Thought Record in ***manual: Thought Record***
- Listen to the first 10 minutes of each of the three mindfulness exercises once this week on separate days
- **CORE SKILL**: Continue to utilize at least at least two to three defusion strategies to regularly defuse automatic thoughts in real time
- Complete the "Naming" the Story exercise daily

Session 6: Debriefing (50 Minutes)

Materials Needed: Patient Manual, Mindfulness Recording

Rapport Building and Review (10-15 Minutes)

- Check in
- Review progress with breathing retraining
- Review topics covered in previous session
- Review progress with ***manual exercise: Thought Record***
  - Continue to focus on Situation → Thought → Reaction
  - Discuss cognitive distortions patient has identified
  - When applicable, use examples from the Thought Record to again illustrate the function of unhelpful thoughts and emotions as disconnecting from the present moment/task at hand.
- **CORE SKILL**: Review progress with utilizing defusion techniques in ***manual: Defusion Techniques***

  Use as much time as needed on this during session.

  Normalize any struggles patient is having utilizing the defusion strategies.

  If having trouble recognizing when to use strategies in real time, review discussion of strong unpleasant emotions (see Session 2: Introduction to Cognitive-Behavioral Therapy) as an indicator of automatic thoughts. If insight remains poor, talk about the physical experience of unpleasant emotions and how to use physical sensations as an indicator of automatic thoughts.

  If patient is showing signs of frustration with the technique, utilize the opportunity to build insight and practice a defusion technique in session. Otherwise, devote some time for practice using examples from Thought Record

Review Agenda for Today (1-2 Minutes)

- Conduct mindfulness exercise
- Continue our discussion of schema and how they influence your interpretations of everyday events
- Review progress in therapy
- Discuss where to go from here (i.e., relapse prevention, triage)

Mindfulness Exercise (5-10 Minutes)

Review patient's experience with mindfulness practice since last session. What benefits have they gained from the technique? Are the benefits restricted to attention?

Remind patient that mindfulness is not a method of thought "control" but simply a means of refocusing and sustaining attention. Although attention regulation is the skill that is being practiced, pleasant feelings such as relaxation can sometimes be a byproduct of this process

Initiate mindfulness exercise (The Observing Self audio recording)

Obtain verbal consent from patient before beginning the mindfulness exercise.

Review that the patient will be asked to close his or her eyes and find a relaxed and comfortable sitting position during the exercise, which will last for approximately 5 minutes. This is before the 10-minute bell, so the therapist will have to informally time it him/herself.

Review that time and time again the patient can expect to get caught up on external and internal distracters (especially thoughts), and that this is normal and ok. The real task is for the patient to become more adept at realizing when this has happened, and work on gently refocusing toward the target stimuli.

Review that patients occasionally can experience some uncomfortable feelings (e.g., anxiety) during their first attempts at mindfulness practice. If this occurs, encourage patient to simply continue to follow the guided instructions to refocus their attention. In the rare circumstance that a patient might experience severe emotional distress, he or she may choose to either open the eyes while continuing the exercise, or discontinue.

Ask the patient to close the eyes, find a comfortable position, and begin abdominal breathing. After 15-20 seconds of silence, start the audio recording. Although the recording lasts 20 minutes, there is a bell that will signal when the 10-minute point has been reached. The patient can stop the recording then.

If for some reason the patient cannot tolerate the full 10 minutes, try 3-5 minutes for the first practice with a goal of progressing to 5-7 minutes and then to 10 minutes as tolerated in successive sessions. The patient's homework exercises should correlate with whatever length is tolerated in session, with a stated goal of increasing to 10 minutes.

Make sure to participate in the exercise alongside the patient. The patient will feel less uncomfortable that way, and it is usually more effective.

Schema Continued (10-15 Minutes)

Review progress with the "Naming the Stories" exercise.

Review list of maladaptive schema identified on the Schema Inventory in ***manual: Schema Inventory***. Continue to help patient identify other relevant schema "stories," using their Thought Record as needed.

Use schema identified thus far to continue to tailor defusion strategies for patient. Goal is to have patient select 2-3 defusion strategies to continue to use daily after the conclusion of therapy.

Review Progress Made in Therapy (5 Minutes)

Emphasize gains while identifying areas for continued improvement.

- Relapse prevention (5 minutes)
- Positive reframe for recurrence of strong unpleasant emotions patient is likely to experience in the future

Remind patient:

- They will not always be successful in defusing all unhelpful thoughts
- Encourage acceptance of both positive and negative emotions as a necessary component of a life well lived
- Struggling to control or get rid of unpleasant emotions only serves to intensify them
- Emphasize importance of continuing to practice defusion and mindfulness techniques

Triage planning as appropriate (2 minutes)

References

1. Harris, Russ. (2010). *The Happiness Trap.* Auckland, NZ.
2. Hayes, S. C., & Smith, S. (2005). *Get Out of Your Mind and Into Your Life.* Oakland, CA.
3. Wright, J. H., Basco, M. R., & Thase, M. E. (2007). *Learning Cognitive-Behavior Therapy.* Arlington, VA.

Appendix A: Acronyms

CBT	cognitive-behavioral therapy
DVBIC	Defense and Veterans Brain Injury Center
SCORE	Study of Cognitive Rehabilitation Effectiveness
TBI	traumatic brain injury
VA	Veterans Affairs