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Cognitive Behavioral Therapy: Techniques for Retraining Your Brain

Course Guidebook

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Professor Jason M. Satterfield is Professor of Clinical Medicine, Director of Social and Behavioral Sciences, and Director of Behavioral Medicine in the Division of General Internal Medicine at the University of California, San Francisco (UCSF). He received his B.S. in Brain Sciences from the Massachusetts Institute of Technology with a special minor in Psychology from Harvard University. He completed his Ph.D. in Clinical Psychology at the University of Pennsylvania (Penn), where he worked with Dr. Martin Seligman on cognitive models of bias, risk taking, depression, and aggression. Professor Satterfield was trained as a cognitive behavioral therapist at Penn's Center for Cognitive Therapy under the supervision of Drs. Aaron T. Beck, Judith Beck, and Robert DeRubeis. Professor Satterfield completed his internship and postdoctoral fellowship at UCSF at San Francisco General Hospital with Drs. Ricardo Muñoz, Jeanne Miranda, and Jacqueline Persons in the Department of Psychiatry. In 1996, Professor Satterfield accepted a position in the UCSF Division of General Internal Medicine to focus on the intersection of psychological factors and physical health.

Professor Satterfield's clinical work has included adaptations of cognitive behavioral therapy for underserved, medically ill populations and psychological interventions for patients with serious chronic illness. He currently directs the UCSF Behavioral Medicine Unit, which integrates mental and behavioral health services into adult primary care.

Professor Satterfield's research and educational interests include integrating social and behavioral science in medical education, disseminating and implementing evidence-based behavioral practices in primary care settings, and developing educational strategies to address health-care disparities. His current projects include using digital technology to facilitate behavior change, supporting interprofessional education, promoting social and emotional

intelligence for physicians, developing screening and brief interventions for substance abuse, and integrating the social and behavioral sciences in medical school and medical residency curricula. Professor Satterfield is a member of the Behavioral and Social Science Consortium for Medical Education and the Council for Training in Evidence-Based Behavioral Practice, both of which are funded by the National Institutes of Health.

Professor Satterfield's book *A Cognitive-Behavioral Approach to the Beginning of the End of Life* and the accompanying patient workbook, *Minding the Body*, were recognized as Self-Help Books of Merit by the Association for Behavioral and Cognitive Therapies. He also is the associate editor of the best-selling textbook *Behavioral Medicine: A Guide for Clinical Practice* (4th edition). His special clinical publications include treatment models for cognitive behavioral therapy, treatment adaptations to improve cultural competence, and a transdisciplinary model to promote evidence-based behavioral practices in medicine, including interventions for smoking, weight management, drug abuse, and chronic disease management. Professor Satterfield is coauthor of a recent report detailing the role of behavioral science in medicine, and he served on the Behavioral and Social Science Subcommittee that revised the Medical College Admission Test (MCAT)—work that was featured in the *New England Journal of Medicine* and *The New York Times*.

Professor Satterfield currently directs the Social and Behavioral Sciences curriculum for all UCSF medical students and internal medicine residents. He has been nominated for multiple teaching awards at UCSF, including the Robert H. Crede Award for Excellence in Teaching and the Kaiser Award for Excellence in Teaching, and he received the Academy of Medical Educators Cooke Award for the Scholarship of Teaching and Learning. He is often competitively selected to teach at national conferences for a wide variety of health professionals, including physicians, nurses, social workers, and psychologists.

Professor Satterfield grew up in Middle Tennessee and was the first in his family to attend college. After living in Boston and Philadelphia for school, he moved in 1994 to San Francisco. He is an avid traveler and enjoys a large circle of friends and family. ■

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LECTURE GUIDES

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Disclaimer

This series of lectures is intended to increase your understanding of the emotional and social lives of children and/or adults and is for educational purposes only. It is not a substitute for, nor does it replace, professional medical advice, diagnosis, or treatment of mental health conditions.

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Cognitive Behavioral Therapy: Techniques for Retraining Your Brain

Scope:

Cognitive behavioral therapy (CBT) is a well-tested collection of practical techniques for managing moods and modifying undesirable behaviors through self-awareness, critical analysis, and taking steps toward gradual, goal-oriented change. CBT illuminates the links between thoughts, emotions, behaviors, and physical health and uses those connections to develop concrete plans for self-improvement. Built on a solid foundation of neurological and behavioral research, CBT is not simply about treating mental illness. It is an approach almost anyone can use for promoting greater mental health and improving one's quality of life.

In this course, you will learn about CBT in theory and in practice, through an in-depth discussion of techniques and therapy sessions. You will be able to take on the role of medical student, physician, psychologist, and patient as you learn about the methods used in CBT, its practical applications, and what goes on in a therapy session. You also will learn some practical tools you can use to evaluate your own needs and develop a tailored approach to reaching your goals.

We begin where therapy begins, by setting some goals. First, we will set the goals for the course: an understanding of how and why CBT works and how it might work for you. Then, we will address the importance of setting goals for yourself within the CBT framework and how to make those goals realistic and achievable. Next, we will examine how to formulate a plan to achieve those goals, based on your own individual circumstances.

From there, we will discuss a variety of common concerns that CBT can help you address. Some of these issues fall under the traditional rubric of mental health, such as anxiety, depression, and trauma. Others you might think of as everyday stressors, such as conflicts at work or the loss of a loved one. Others you might have regarded as medical issues, such as insomnia, weight management, or chronic pain. No matter how the difficulty came about, CBT

can be a powerful part of better understanding the concern and enhancing the healing process. Unlike other forms of psychotherapy, CBT places the power in the hands of the patient, who learns and practices an explicit skill set that lasts long after therapy might end.

CBT comes in several varieties, and we will address which methods are most appropriate for different situations. We will discuss the roles that our families, friends, communities, and other forms of social support can play in the CBT process. We will examine some of the tools on the cutting edge of CBT—from self-help smartphone apps to social networks—that are offering new ways to engage in the therapy. We also will discuss how to assess these and other self-help tools to separate the good from the useless (or even harmful).

Finally, we will ask the most important questions: Is self-help for me, or should I seek professional help? How can I find quality materials or a quality therapist? How can I get started? How can I help someone I love get started? Knowing when you can manage on your own, when to seek professional help, how to find those resources, and how to use them effectively are primary learning goals of this course. ■

Cognitive Behavioral Foundations

Lecture 1

The central question of this course is determining what we can change and what we can't. In either case, there are things you can do to lessen suffering and improve your quality of life. Sometimes that will mean following a program to genuinely change something about yourself, but many times it will mean learning how to accept or even value things about yourself or your world that you simply can't change. The goals of this course are to present the science of how we change—of how we can improve or even treat ourselves—and to leave you with a toolbox of practical, evidence-based strategies you can apply on your own whenever you need them.

The Science of Change

- To talk about the science of change, we first have to decide what level of analysis we want to use. We can talk about the biological (medicine and neuroscience), the psychological (emotions and cognitions), or the social (relationships in our lives, including significant others, communities, and even societies).

- We'll talk about psychotherapy research. How do we know what is evidence-based? How do we know what works for which particular problem or disorder? We want to look at what level of change we're interested in. Are we trying to change an individual? Are we trying to change a couple? Are we trying to change a family, or even a community or society?

- Whenever we talk about change, it's important that we reflect on our own personal philosophies or ideologies of change. What is your philosophy of mind? Can we change who we are fundamentally? Can we change our cognitions, emotions, and behaviors?

- Cognitive behavioral therapy (CBT) has its own ideology—its own preferences. It's grounded in Western empiricism, and it holds up the value of rationality. It holds up the power of the scientific

method. It's not saying that emotions or passions are bad or wrong and that we want to push those down. It's really about striking a balance between rationality and passion or emotion.

- For our toolbox, we're going to take a CBT focus. We're going to look at the underlying foundational theories in more than 30 years of science to tell us which tools work. We're going to present specific sets of tools and skills to facilitate change when change is possible. That theory is going to help us see the complex interrelationships between cognitions, behaviors, and emotions—the CBT triangle. We're going to learn that if we change one in that complex mix, we're probably going to change them all.

- The goal is for you to become your own CBT therapist. This is a form of self-help, because any form of self-improvement is a form of self-help. But there aren't any shortcuts or magic. The CBT process can be quite difficult; it takes practice and commitment. As you will learn, one of the key ideas of CBT is that we all view the world through a subjective lens. The same will be true for how you see this course.

Mental Health and Mental Illness

- We're going to break open and examine some ideas about mental health and mental illness. What does a person with mental illness look like? What does a person who is mentally healthy look like? In both categories, there is a great range of appearances, and there is no single prototype, but there is a lot of overlap between them. In fact, it might be the same person at different points in his or her life.

- It's important to realize that mental illness is common. In fact, one in four people will have a diagnosable mental illness at some point in their lives. It's hard to watch the news without hearing about school shooters, or post-traumatic stress disorder in combat veterans, or teen suicides, or depression, or burnout, or bullying. We need more attention to mental health, and we need to reduce the stigma of reaching out for help.

- Even though a person has a mental illness, he or she can still make an important contribution to society. An example is Marsha Linehan, a psychologist and world-renowned researcher who discovered dialectical behavior therapy, probably the only effective therapy known to help individuals with borderline personality disorder or parasuicidal behavior. She discovered the therapy because she struggled with the diagnosis herself.

- This course is about a psychotherapy—CBT—but it's not psychotherapy itself. And it doesn't take the place of treatment, should treatment be needed. We're going to look at mental illness, but this is also about promoting mental health.

- As we learn about how thoughts and behaviors influence emotions and motivations, you will be having thoughts about thoughts, and you will be having feelings about feelings. This course will trigger ideas, excitement, boredom, agreement, or even outrage. Use it as a real-world CBT opportunity to dig deeper to understand your response and to possibly control or change it.

Change

- Think of three things about yourself that you believe are unchangeable. For example, you might think of your race, your height (if you're an adult), and your gender. However, these things are not so simply unchangeable.

- What if you were to undergo genetic testing to determine your racial ancestry and you discovered that you're not entirely the race that you thought you were. You are still the same person, but maybe your perception of your race has changed.

- What about your height? You're fully grown when you're an adult, barring any sort of rare diseases, but we also know that we shrink as we age. In fact, we lose one to two inches of our height as we grow older.

- What about gender? It seems unchangeable on the surface—unless you consider sexual reassignment or sexual affirmation surgeries. The line between male and female is blurred when you consider the issue in more detail.

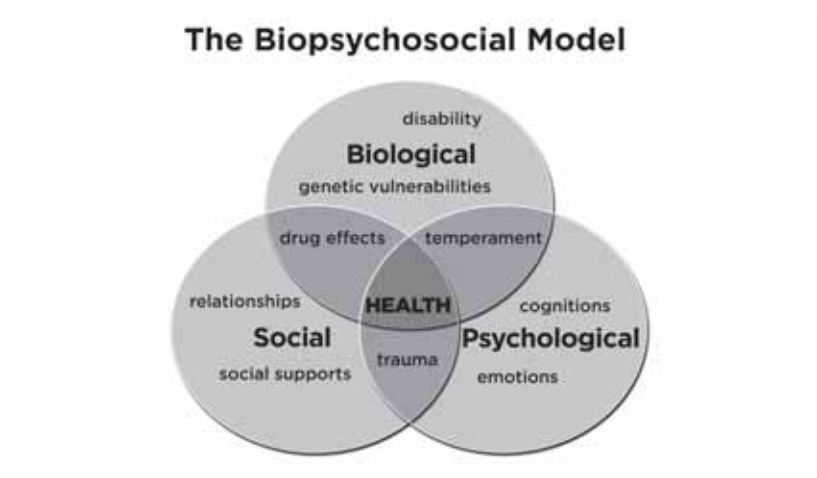
- But what if you were to think of things that can absolutely change? Things that you know if you roll up your sleeves and just put in enough effort, you can change them. You might think of things like, well, your social skills, you can change your relationships, or maybe you can change your beliefs, but we know that things like introversion and extroversion are very difficult to change and they very much affect our capacity to learn and to use social skills. You can certainly end your relationships, but you may recreate the exact same relationship dynamics with another person.

- Change is complicated. It's not just an internal, individual process. We also want to look at external factors. And even if you can't change something, you might be able to change the way you think about it or react to it.

Therapy and the Brain

- When we talk about change, what is it that we're changing? We talk about changing our mind all the time, but what does that really mean? On a basic level, we are biological beings, so when we talk about changing ourselves, we're on some level talking about changing our brains and maybe our bodies, too. These individual changes might trigger changes in others or changes in our environment in a complex, bidirectional, iterative system.

- A helpful model to think about this is called the biopsychosocial model, which was originally developed by George Engel in the late 1970s. To understand the biopsychosocial model, imagine a Venn diagram with three circles: one for the biological, one for the social, and one for the psychological. Some factors might reside in just one circle, some might reside in two circles, and some might be right in the center, including biological, psychological, and social factors.



- Thinking about CBT, the psychological circle comes to mind. We've talked about cognitions and emotions, but the social circle might also come to mind as we consider relationships and social supports.

- There are a number of different pathways or mechanisms that might help change behavior, emotions, or relationships. One way is pharmacotherapy. There are a number of psychoactive agents that can reach in biologically and change an individual's mood, which will change cognition and probably behavior, too.

- In addition, there are a limited number of neurosurgeries that would influence the way an individual feels. For example, for severe obsessive-compulsive disorder, there is a brain surgery that can help those individuals.

- Another way to help change behavior is psychotherapy. CBT is a special type of psychotherapy. There's also self-help. There are some CBT tools that you can use on your own.

- Just as our brains can be exercised, or behavior-trained, to improve cognitive function, we can also train our brains to improve motivation, management of emotions, and our interpersonal skills.

- There has been research using brain scans, PET scans, and functional MRIs that analyzes whether or not there are changes in brain activation as a consequence of someone engaging in psychotherapy. The psychotherapy most commonly studied in these research studies is CBT for depression and CBT for anxiety. The research shows notable changes in the patterns of activation.

- A study conducted by Kimberly Goldapple analyzed CBT versus an antidepressant called Paxil. The patients in both groups became much less depressed after engaging in CBT or taking Paxil. In fact, they were considered remitted from their depressive episodes. But in terms of changes in brain activation, the patterns were different depending on what kind of treatment the individual received. For CBT, there was more hippocampal activation. For Paxil, there was more prefrontal activation.

- It's very interesting to think that at some point in the future, we might not just diagnosis mental illness, but we will diagnose dysfunction in patterns of brain activation. We'll be able to tailor, or maybe personalize, the kind of psychotherapy or pharmacotherapy an individual would get based on what those activation deficiencies might be. The goal is to push the field of psychiatry along so that we can get to the point of personalized psychiatry, but the field is still somewhat murky and contradictory.

- Although the brain effects are clear—the talking cure changes your brain—we don't have a consistent explanation for how that happens. This implies that our social interactions, our relationships with each other or with the therapist, have the power to change our brains. Schools, seminars, trainings, and educational videos can facilitate a sort of rewiring as we learn new skills.

- We know that therapy can cause changes, and we know how particular areas of the brain are activated and that this may cause beneficial effects in emotion, behavior, or other factors. But does any type of therapy do this? Some would say yes.

- There is a common set of nonspecific factors that make therapy beneficial. Some of these benefits include the therapeutic alliance, empathy, or a corrective emotional experience. But CBT goes above and beyond these benefits. You get the specific factors, but you also get new mood management and life skills.

- Medications can also cause changes in brain activation, but we should remember that we don't have to intervene on that level unless we choose to do so. For example, with cardiovascular disease, we can use diet, exercise, and nutrition, or we can use pharmacotherapy, such as statins for cholesterol—or you can choose to combine them. The decision is partly dependent on where you are in terms of risk or severity.

- Change of some sort is always possible, regardless of age or background, but it might not be the change you are expecting. Learning how to assess your situation and select an appropriate tool is a vital skill.

Suggested Reading

Baron and Kenny, "The Moderator-Mediator Variable Distinction in Social Psychological Research."

Frewen, Dozois, and Lanius, "Neuroimaging Studies of Psychological Interventions for Mood and Anxiety Disorders."

Goldapple, et al, "Modulation of Cortical-Limbic Pathways in Major Depression."

Goldapple, Segal, Garson, et al, "Modulation of Cortical-Limbic Pathways in Major Depression."

Kazdin, "Mediators and Mechanisms of Change in Psychotherapy Research."

Questions to Consider

1. What preexisting beliefs or assumptions do you have about psychotherapy? Where did you pick them up? What influence have they had on your efforts to maximize your mental health?

2. Traditional psychoanalysts criticize CBT as being shallow and superficial. What response do you think a cognitive therapist might have?

Quantified Self-Assessment for Therapy

Lecture 2

In this lecture, you will learn about the basic principles of CBT, including its history and theory, as well as what you need to know in order to understand what is in the CBT toolbox. You also will learn procedures for assessment and goal setting. In addition, you will learn how to use a battery of psychological tests to determine strengths, challenges, and opportunities for change. Furthermore, you will learn how to use self-monitoring to collect and use real-world data.

The History of CBT

- Aaron T. Beck is the father of cognitive therapy. His idea was to develop a new system that was particularly targeted for the needs of an individual and not to apply the primary paradigm at the time, in the 1960s, which was psychoanalysis.

- After this promising psychiatrist got out of Yale Medical School and finished his residency, he went to the University of Pennsylvania to start working with a cohort of depressed patients. He conducted psychoanalysis sometimes five times a week per patient over several years. He was using classic psychoanalysis, including dream analysis, but his patients weren't getting any better.

- He was frustrated by the lack of progress, but he was also frustrated by the process of therapy, where there are no objective outcome measures—no objective goals. The treatment seemed to be endless with no timeframe.

- He was frustrated that the therapist is supposed to be omniscient and that the patient should be disempowered. He was frustrated by the lack of transparency. He was frustrated by the common ways of thinking he was seeing in his depressed patients over and over again. It was his frustration with the outcomes, his frustration with the process, that led to what we call now the cognitive revolution.

- The roots of the cognitive revolution go back quite far. In fact, the roots are in Socratic traditions. One of the core skills of the CBT therapist is something called Socratic questioning. Rather than just telling the patient the answer, the therapist asks a series of questions so that the patient will find the answer himself or herself.

- While Beck is typically referred to as the father of CBT, there were a number of other very influential individuals at the time that were also taking their own part in the cognitive revolution. There was Albert Ellis and his writings and important work on rational emotive behavior therapy in the early to mid-1960s. There was an organization called the American Association of Behavior Therapy, which was founded in 1966 by 10 behaviorists that were unhappy with psychoanalysis.

- There was Michael Mahoney's book in 1974, *Cognition and Behavior Modification*, and then Donald Meichenbaum's book in 1977, *Cognitive-Behavior Modification*. But in 1979, Aaron T. Beck, A. John Rush, Brian F. Shaw, and Gary Emery wrote the classic book that opened up the field of CBT, particularly in terms of depression: *Cognitive Therapy of Depression*.

The Theory of CBT

- What are some of the things that you should be asking yourself as you learn more about the CBT model? You should be asking yourself the following questions: How would CBT explain emotions, positive or negative? How would CBT explain suffering? How does CBT explain mental illness? How would CBT be able to account for the individuality and the variation among individuals? Does the theory hold true for everyone?

- We're looking at three key variables: cognition, behavior, and emotion. Essentially, we work with all three of these variables on three different levels. First, we want to engage in detection when gathering data: We want to see what's happening in that individual's life in terms of their cognition, behavior, or emotions. Secondly, we want to look at analysis and evaluation: We know what happened,

but why did it happen, and what was driving it? What were the contextual factors? Is this a one-time thing, or is this an ongoing pattern? Lastly, we want to go about challenging or even changing those cognitions, behaviors, or emotions.

- These three steps—detection, analysis, and challenge—are just the starting point. Much of the richness lies beneath the surface. An individual will come into our office and tell us about the present, including daily activities, but we want to begin drilling a little bit deeper, looking at core beliefs and potentially implicit biases.

- How might a CBT therapist respond to the charge that what they do is simply superficial? It's all a matter of perspective. You can approach psychotherapy from a top-down perspective or from a bottom-up perspective.

- Classic psychotherapy—psychodynamic psychotherapy or psychoanalysis—starts at the bottom. It involves looking at the unconscious desires, beliefs, and wishes of the individual and trying to bring them up to the top, or surface.

- Alternatively, CBT therapists start up at the top, with the everyday events that are happening, and begin sinking down further until they get to the point where the individual has achieved his or her goals.

- The difference with CBT is that we set the goals up front, and once an individual has achieved his or her goals, he or she is no longer depressed or anxious. The individual has been able to establish a new social support network, so there's really no reason to continue excavating.

Case Formulation and Assessment

- Eventually, we'll want to create what's called a case formulation, where we put together all of the data from the top, middle, and bottom, if necessary, so that we have an explanation of why the individual's life happens to be the way it is. We want to keep things

transparent, so we're going to share that formulation, and we're going to keep it open to revisions throughout the course of therapy.

- For the sake of collaboration and transparency, it's going to be important for us to set some concrete goals. What kinds of data will we be looking at? We'll be looking at questionnaires, as well as social and medical history. We'll be looking at potential symptoms of psychopathology or other medical symptoms and potential functional impairments. Is the individual having trouble operating or functioning as usual in a work setting or in a social setting?

- We want to get a sense of the timeline: When did the problem start, and how has the individual progressed over time? Of course, we want very concrete and specific examples from the individual.

- One of the advantages of assessment is that we get a clear indication of a starting point—of a baseline of where we are right now at this point in time. We can reassess that over time as a way to judge progress. It tends to be more objective, more reliable, and less biased. And it's key to getting feedback to decide whether or not our treatment interventions are working. If they're not working, we should change them.

- There are objections to measurements and to the structure that you find in a CBT approach. One of the objections is that not everything is quantifiable. This approach maybe oversimplifies an individual's difficulties, and maybe some of the survey instruments lack validity. Perhaps this method is less personal; perhaps it could hurt the therapeutic relationship. These concerns are probably ill founded.

- What are some of the types of instruments that we use? We may use surveys, questionnaires, diaries, and semi-structured interviews. These days, we also may use phone apps or websites to collect data. Even more recently, we're using wearable devices and sensors to collect information on an individual's social contacts as well as on their physical activity levels.

Keeping a diary is just one of the instruments used in a CBT approach.

- Some of the questionnaires that are commonly used include the Beck Depression Inventory (named for Aaron T. Beck), the Beck Anxiety Inventory, the PHQ-9 for depression, and the DASS-21 for depression and stress.

The Beck Depression Inventory and the Beck Anxiety Inventory can be found at the following website:

www.beckinstitute.org/beck-inventory-and-scales/

- We'll start by giving questionnaires to all patients and then begin tailoring the packet depending on what the individual's chief complaint is. For example, we might start with mostly symptom-focused questionnaires to give us a baseline. We use a guided interview to then elicit additional information that we will use in making the formulation. We use questionnaires and assessments to initiate a conversation about what the individual's goals might be.

- Other information that we might want to use is real-world data that we would collect through a process called self-monitoring. If we want to learn more about an individual's cognitions and emotions, we would give him or her a self-monitoring form to begin writing down his or her cognitions and emotions as they occur in real time throughout the week. The individual would then bring that back to us as additional data for the next session.

- All of this data gathering and interpretation is in the service of a few goals. We want to know what an individual's diagnosis is (if he or she has one), and we want to know about deficiencies. But we really want to specify some goals.

- Once we have qualitative and quantitative information from an individual, we just need to fill in more of the individual's story. We will need to learn about how everything fits together in his or her life. We need to understand what lies underneath. We need to understand what strengths he or she has, what resources he or she has, and what might get in the way.

- We need to invest a fair amount of ongoing effort to build an initial case formulation, share that formulation with the patient, and then revise it and continue to revise it over time as we get more and more information about how much progress he or she might be making.

Suggested Reading

Cipani and Schock, *Functional Behavioral Assessment, Diagnosis, and Treatment*.

Groth-Marnat, *Handbook of Psychological Assessment*.

Questions to Consider

1. Are all psychological or behavioral issues amenable to measurement? What if your goal is to have more insight or be more content with your marriage? Can everything really be measured? If not, how could you determine progress in therapy?

2. Create your own SMART goal(s) for this course. What would you like to get out of it? What do you hope will change? Be sure the goal is specific, measurable, attainable, relevant, and timely (SMART).

Setting Therapeutic Goals

Lecture 3

In this lecture, you will learn how to create a case formulation. You will learn how to use assessment data to develop a narrative that explains an individual's condition and outlines how to change it. You also will learn how to describe the links in a possible causal chain. In addition, you will learn how to develop hypotheses that explain problems and situations using cognitions, behaviors, emotions, relationships, and other social interactions. Finally, you will learn about developing a treatment plan based on a case formulation.

Case Formulation

- A case formulation is defined as an individualized theory that explains a particular patient's symptoms and problems. It serves as a basis for an individual treatment plan and guides the therapy process. This classic definition is adapted from Jacqueline Persons's 1989 classic book *Cognitive Therapy in Practice: A Case Formulation Approach*.

- When developing a case formulation, we will compile and interpret data. We will use data from self-report, surveys, observations of the patient in action, or interviews or reports. We will also use data taken from behavioral analysis. We will look at the antecedents of the behavior, the behavior itself, and the consequences that follow. Our interventions will flow from the formulation.

- It's important to remember that you can formulate a case, or a patient, as a whole. You can formulate a problem like depression or anxiety, or you can create a formulation based on a very specific situation. The word "formulation" can be misleading, but we're looking at how key ingredients combine to create an individual's current life circumstances. It's not about blame; it's about trying to understand the causes so that you can prescribe a treatment.

- We could just use a standard treatment protocol. There are fantastic treatment manuals that provide a one-size-fits-all approach. But we know that everyone is different, and we need to take into account different contextual, environmental, or family factors. We need to take into account potential comorbidities—psychiatric, medical, or otherwise—and we want to take into account an individual's specific goals.

- Formulation is always a work in progress. It is shared with the patient, who helps revise it. We'll go about hypothesis testing using the formulation, and we'll either prove or disprove particular parts of it. For the parts that prove not to be accurate, we'll change it. Our hypotheses are about psychological mechanisms and other factors that cause or maintain the disorder or the other problems that brought an individual to treatment.

- What are the key elements of a case formulation? First, we're going to start with something called the problem list or the diagnosis.

- Second, we want to develop working hypotheses. There are four important components to remember when creating a working hypothesis.
    - First, we want to look at the role of cognition and especially deeper cognitive structures, something called schemas or scripts, with a focus on Beck's cognitive model.

    - The second part of a working hypothesis looks at behaviors. We'll look at antecedents, or triggers, as well as the punishments and the rewards that a particular behavior evokes.

    - Third, we'll want to look at the origins. We're talking about early learning events or perhaps about parents or family issues.

    - Lastly, we'll tie it all together and create a summary to tell a story.

- The third key element of an overall case formulation is to focus on an individual's strengths and assets. It was probably suffering or a problem that brought the individual to therapy in the first place, but he or she also has strengths and assets that we might be able to tap into.

- Fourth, we want to create a treatment plan. Given what we know about the person—given our hypotheses and his or her strengths and assets—what are our goals? What are our measures, and what are the interventions that we're going to use?

Problem List or Diagnosis

- The first component of case formulation is a problem list or a diagnosis. In a medical setting, they would call this the chief complaint or the presenting complaint: Patient presents with pain, or patient presents with depression or anxiety. But we want to go further than that to include other domains. We want to cast a wide net in terms of other psychological issues or maybe psychiatric disorders.

- We want to look at interpersonal issues of social supports or social conflicts. We want to look at something called occupational functioning: How well are you doing at work? What are your successes? What are you failures? We'll want to include potential medical diagnoses or medical concerns or symptoms. This problem list might include finances, housing, or legal issues. It might also include basic quality of life and enjoyment.

- Once we have created a full list, it needs to be ranked. Of course, we're going to put things like suicide, violence, or any emergent-type issues at the top of our list. But we'll also want to look for something called therapy interfering behaviors. If we know that a patient has a habit of skipping their sessions, we're going to address that problem first, because if we can't get the patient in, we can't really help him or her.

Working Hypothesis

- The next step is to build a working hypothesis. We want to look for explanations as to why a particular problem exists, or we want to look at an individual's reaction to a particular situation and try to understand why they have reacted in that particular way: What caused it, or what causes it? What maintains the problem, what makes the problem worse, or what makes the problem better? We want to remember that there might be both internal factors as well as external factors.

- We're going to focus on cognitions, behaviors, and emotions. But we should remember that biology might be exerting an influence, too, so that might be on our map or in our formulation, as well.

- With the working hypothesis, there are four components: cognitions, behaviors, early origins, and a summary. The first component involves Beck's cognitive theory.

- The general assumption of cognition is that events make us think or feel a certain way: My boss makes me angry, or my significant other makes me stressed out. We might acknowledge that we have a choice in how we react, but we often see it as a direct cause-and-effect relationship.

- Beck's cognitive theory has a different model: It isn't events that trouble us, but it's how we view those events. In a cognitive model, an activating event triggers cognitions, or what are called automatic thoughts, which then cause emotional and behavioral consequences.

- Particular kinds of automatic thoughts are linked to specific reactions. For example, anger tends to be preceded by thoughts that you're being mistreated or that some sort of injustice has occurred. For depression, it's often thoughts about loss.

- Why do we have these particular automatic thoughts? Two people in exactly the same situation might have dramatically different automatic thoughts. To answer this question, we'll have to use

Anger tends to be preceded by thoughts that you're being mistreated or that some sort of injustice has occurred.

Beck's model to drill down a little bit deeper into our belief system. We'll need to better understand our rules of life, or what are called our conditional if-then assumptions. We'll need to look at what Beck calls schemas or scripts that tell us what to expect, how to react, and how to live our lives. Ultimately, we'll boil it down to our basic beliefs: our core beliefs about ourselves, about others, and about the world.

- For behavior, we cast a fairly wide net. We're talking about all sorts of activities, including mundane activities, big activities, small activities, activities we do alone, and activities we do with others. It would include activities for pleasure as well as activities for work—the things you have to do and the things you want to do. The idea is that these activities throughout the course of the day are summative in terms of how they affect an individual's mood. Many small activities can add up into a fairly profound effect.

- The roots of the behavioral part of the formulation are from behaviorism and behavioral theory, which considers how rewards and punishments from our environment subtly shift our behaviors until sometimes they create very complex functional or maybe dysfunctional behaviors. We would want to do self-monitoring for behaviors, but also for cognitions and emotions.

- Finally, we want to look at origins to formulate the hypothesis. At this point, we would start delving into the past. We want a broad picture first, and we probably won't spend substantial time going back, unless we feel that we're stuck in the present and not able to make progress. We'll weave all of this together into our hypothesis to tell a story.

- A case formulation can run between seven and ten pages and typically includes all of the assessment data, goals, and treatment plans.

Strengths and Assets and the Treatment Plan

- The last few parts of our case formulation include looking at strengths and assets. For example, strengths and assets might include insight and motivation, love for family members and value of relationships, and lack of financial stressors if the person is gainfully employed.

- The last part of our formulation is the treatment plan. We want to look at evidence-based treatments, but we also want to look at a patient's willingness to engage in those treatments as well as what the patient's preferences might be.

- We almost always share the case formulation with the patient. In fact, it's seen as a collaborative process, and if the patient tells you that the formulation is wrong, you can assume that it's wrong. You need to go back to the data and rewrite the formulation.

- A case formulation is always a work in progress, and it's always an iterative process. The formulation guides our treatment, and if we don't have the formulation right, then we might not have the treatment right.

Suggested Reading

Persons, *The Case Formulation Approach to Cognitive-Behavior Therapy*.

Questions to Consider

1. Nearly all psychotherapists create some sort of formulation about who their patient is and what he or she might need. However, CBT is one of the few that collaboratively develops and explicitly shares the formulation and treatment plan. What are the positive and negative implications of this collaboration and transparency?

2. Is a formulation (or explanation for how all the pieces fit together) really necessary for change? Can you just take a leap of faith and still get results? What benefit does the formulation give you?

Third-Wave Cognitive Behavioral Therapy

Lecture 4

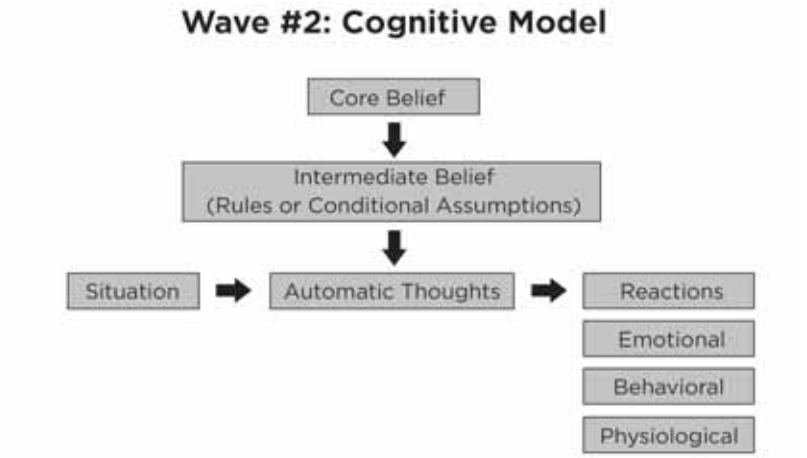
In this lecture, you will learn about the therapies that preceded CBT (first-wave therapies) and therapies that have followed it (third-wave therapies). The first wave is psychodynamics. This course mostly focuses on the second wave, but there is an important third wave that seems to be qualitatively different than the other two. Third-wave therapies are not just about content; they are about the process. For each individual, it's about integrating the three waves and finding a mix of them through theory as well as trial and error that will work for that particular person.

The Three Waves of Therapy

- Although there are dozens of different types of therapies, they can be divided into three waves. Within each wave, there are of course subtypes, but each wave shares core principles. For the first wave, we have to go back to Sigmund Freud and his contemporaries. Although much of his work has been discredited today, he was incredibly influential in shaping how we think about our minds, relationships, and day-to-day functioning.

- In the first wave, our mental lives are full of deep and meaningful symbols. Dreams aren't just crazy images; they have meaning and often relate to our deep-seated desires and fears. A first-wave therapist hears what you say but is always trying to interpret what you really mean to say. In a way, it's all very mysterious and difficult to follow.

- Of course, our interest—our passion—for deep, symbolic thinking and analysis is part of our great literary and religious traditions. Both are full of hidden meanings just waiting to emerge. It's a treasure hunt, and it's a challenge.



- The second wave is the cognitive model, or current CBT. In this model, an activating event triggers beliefs or thoughts, which in turn trigger particular reactions: emotional, behavioral, or maybe even physiological.

- A core assumption behind cognitive therapy is that human beings by nature aren't particularly rational. In fact, we aren't even mostly rational. We take all sorts of shortcuts in terms of how we think, how we process, and how we make decisions.

- Most second-wave CBT therapists are familiar with what are called habits of mind. An example is personalization, in which an event happens to us—and maybe in reality it was completely random—but we believe that we were individually and specifically targeted. Another example is magnification or minimization, in which we have lost perspective and made a mountain out of a molehill, or vice versa.

- We might be using a mental filter, in which we selectively attend only to the good things or to the bad things, or we might selectively recall only bad things from our past. We might engage in all-or-none thinking: You are either a complete success or you're a complete failure.

- The most common habits of mind are mind reading and fortune-telling. Mind reading often occurs in social situations. Even though we might be having a conversation with an individual, there's often a dialogue in the background where we're trying to imagine what the person is really thinking and what his or her motivations are. Fortune-telling involves trying to predict what's going to happen in the future. If you're depressed, you're probably making very negative predictions.

- Different individuals have different preferences for habits of mind. Think about this: What are your preferred or most commonly used habits of mind? What are your common conditional assumptions, or rules of life?

- Your core beliefs manifest themselves in the present by fueling particular types of automatic thoughts. What are your core beliefs or schemas about yourself, the world, and others? Can you boil it all down to lovability or achievement? Or is it more complex than that?

- In order to collect more data on yourself, consider filling out two questionnaires: the Dysfunctional Attitude Scale (a list of attitudes we commonly hold about ourselves, the world, and others) and the Automatic Thoughts Questionnaire (a list of different kinds of automatic thoughts).

- The ABCD exercise is a fairly prototypical second-wave exercise that gives us an orderly, organized, and rational framework to start dissecting potentially complex events. The ABCD exercise addresses four things: the activating event, your belief system, the consequences of your response to the activating event, and the dispute of your beliefs about the situation.

- In the second wave of therapy, as opposed to the first, it's not just about cognitions—it's also about behaviors. In the second wave, we do some self-monitoring around behaviors. We want to know

which behaviors are rewarding, which are punishing, which might have been shaped over time, or which might have eroded or even disappeared over time.

- The third wave of therapy distinguishes itself from the other two waves by focusing on the process of cognition rather than on the content of cognition. It's not just about having a negative thought; it's how much attention you pay to it.

- Acceptance and commitment therapy (ACT), developed by Steven Hayes at the University of Nevada, Reno, in the late 1980s, differs from traditional CBT in that rather than trying to teach people how to better control their thoughts, feelings, sensations, memories, and private events, ACT teaches them to just notice, accept, and embrace their private events, especially previously unwanted ones.

- The core concept of ACT is that psychological suffering is caused by experiential avoidance (if we're afraid or nervous of something, we will not do it, which deprives us of the opportunity for learning and growth), cognitive entanglement (we get tangled up in our own thoughts and begin to ruminate), and the resulting psychological rigidity that leads to a failure to take needed behavioral steps in accordance with core values.

- Many of our core problems are due to FEAR: fusion with your thoughts, evaluation of experience, avoidance of your experience, and reason giving for your behavior. The healthy alternative is to ACT: accept your reactions and be present, choose a valued direction, and take action.

ACT

- ACT has six core principles that are meant to promote psychological flexibility.
    - Cognitive defusion: Learning methods to reduce the tendency to reify thoughts, images, emotions, memories.

- Acceptance: Allowing thoughts to come and go without struggling with them.

- Contact with the present moment: Awareness of the here and now, experienced with openness, interest, and receptiveness.

- Observe the self: Accessing a transcendent sense of self, a continuity of consciousness that is unchanging.

- Values: Discovering what is most important to one's true self.

- Committed action: Setting goals according to values and carrying them out responsibly.

- Research supports the use of ACT and third-wave therapies. For example, in 2013, Jessica Swain and colleagues published a systematic review of ACT and anxiety. They looked at 38 different studies that included a total of 323 different patients with a variety of anxiety disorders. They found that there was preliminary support for broad-spectrum anxiety disorders. However, these weren't particularly well-designed studies, and many of them did not yet have control groups.

- A higher-quality study, published by Vivien Hunot and colleagues in 2013, was another systematic review of third-wave therapies in comparison to both first- and second-wave therapies. Researchers found that there were only three high-quality randomized controlled trials at this point, and only about 144 people had been treated. However, they found that ACT was equal to CBT and to a subset of CBT called behavioral activation.

- In 2014, Lars-Göran Öst published an ACT systematic review and meta-analysis of behavioral research and therapy. He found 60 randomized controlled trials of about 4,200 patients and concluded that ACT is probably efficacious for chronic pain, tinnitus, depression, psychosis, obsessive-compulsive disorder,

mixed anxiety, drug abuse, and work stress. For this study, there were some issues with quality, just as there were with all of these studies, but for a relatively young therapy, it's looking pretty good for ACT.

Mindfulness and MBCT

- Mindfulness is a relaxation technique that allows you to be fully present in a nonjudgmental way. There are a number of different strategies to achieve a state of mindfulness. Meditation is usually the most common. Most of them, or all of them, involve some form of concentration—often concentrating on your breath—some degree of relaxation or somatic quieting, and acceptance of the self and of others.

- Mindfulness-based cognitive therapy (MBCT), developed by Zindel Segal, John Teasdale, and others, is another third-wave therapy that combines mindfulness and cognitive therapy. The two

Meditation is one of the most common strategies to achieve a state of mindfulness.

may seem mutually exclusive at first: How can you wrestle with your thoughts in second-wave CBT, and how can you just observe your thoughts and accept them in mindfulness-based meditation?

- You can't do both at exactly the same time, but Segal, Teasdale, and others who practice MBCT suggest that it's important to have both of those tools. And depending on the situation, you might want to wrestle with your thoughts, or you might just want to sit back and practice mindfulness and acceptance.

- In a randomized controlled trial of 145 recovered but recurrently depressed participant controls versus MBCT over a 60-week period, researchers found that 66 percent of the controls had relapsed versus only 34 percent of those who were exposed to MBCT.

- In another study, a systematic review and meta-analysis by Jacob Piet and colleagues in 2011, they looked at six randomized controlled trials of nearly 600 patients. They found that MBCT significantly reduced the risk of relapse or recurrence with a risk ratio of 0.66, meaning that the relative reduction of relapse dropped by about 34 percent.

Suggested Reading

Dimeff and Koerner, *Dialectical Behavior Therapy in Clinical Practice*.

Hayes, *Get Out of Your Mind and Into Your Life*.

Hunot, Moore, Caldwell, Furukawa, Davies, Jones, Honyashiki, Chen, Lewis, and Churchill, "'Third Wave' Cognitive and Behavioural Therapies versus Other Psychological Therapies for Depression."

Layden, Newman, Freeman, and Morse, *Cognitive Therapy of Borderline Personality Disorder*.

Linehan, Armstrong, Suarez, Allmon, and Heard, "Cognitive Behavioral Treatment of Chronically Parasuicidal Borderline Patients."

Linehan, Schmidt III, Dimeff, Craft, Kanter, and Comtois, "Dialectical Behavior Therapy for Patients with Borderline Personality Disorder and Drug-Dependence."

Ost, "The Efficacy of Acceptance and Commitment Therapy."

Piet and Hougaard, "The Effect of Mindfulness-Based Cognitive Therapy for Prevention of Relapse in Recurrent Major Depressive Disorder."

Segal, Williams, and Teasdale, *Mindfulness-Based Cognitive Therapy for Depression*.

Swain, Hancock, Hainsworth, and Bowman. "Acceptance and Commitment Therapy in the Treatment of Anxiety."

Teasdale, Segal, Williams, Ridgeway, Soulsby, and Lau, "Prevention of Relapse/Recurrence in Major Depression by Mindfulness-Based Cognitive Therapy."

Williams, Teasdale, Segal, and Kabat-Zinn, *The Mindful Way through Depression*.

Questions to Consider

1. Wrestling with your thoughts and simply observing or being mindful of your thoughts without trying to change them seem diametrically opposed. How can therapies like mindfulness-based CBT and dialectical behavioral therapy work as a coherent therapeutic approach?

2. What do you imagine a fourth wave of CBT might include? What areas are left to explore or revise?

Stress and Coping

Lecture 5

In this lecture, you will learn about the phenomenon known as stress. Stress is normal, but if it's chronic or severe, or if a person has selected maladaptive coping strategies, it can become detrimental to your health and well-being. As you will learn in this lecture, stress can be managed in a number of ways, including by looking at appraisals, using somatic quieting, and reaching out to people in social supports. Specifically, you will learn about stress in relation to cognition and behaviors.

Stress

- We've all experienced stress before. We all know roughly what it entails. But it's officially defined as a highly orchestrated response to a perceived threat or challenge that includes biological, behavioral, cognitive, and emotional elements. The stressor is the real or imagined thing—the event—that sets the whole process off. Humans are unique in this respect: We can stress ourselves out with hypothetical events, things that never happen or might never happen.

- There are a few other features of stress to keep in mind as we're thinking about how to help people cope more effectively with stress. First, is it a chronic or an acute condition? Acute stress is usually short term. Sometimes that elevated level of stressful arousal can give us the energy, the tunnel vision, and the focus to face whatever stressor or challenge lies directly ahead of us. But with chronic stress, we develop a chronic wear and tear on our bodies, often from things that won't change or can't change.

- From a CBT perspective, we are going to look at the cognitive viewpoint of stress, and we're going to look at a very specific kind of cognitions called appraisals, but we also want to look at the behavioral viewpoint of stress.

- Behaviors are important in two different ways when it comes to the stress process. First, we might be engaging in behaviors that make us more or less likely to experience stressors. Second, on the other end of the process, we might be engaging in behaviors as a way of coping that could either be adaptive or maladaptive.

- A basic stress assessment includes the following common questions.
  - How often have you felt nervous or stressed out in the past month?

  - What has been causing you to feel stressed out? Of course, the answer is the stressors. But is there anything else? Multiple stressors can occur at the same time.

  - How long has this been going on? We want to know whether it's acute or chronic. If it is chronic, we want to know what the duration has been?

  - How has this stress been affecting you? How has it affected your relationships or your performance at work? Have there been any other effects?

  - What have you been doing to cope with this stressful situation? The answer is your coping behaviors. How well has that been working for you? How can others help you? How can you illicit helping behaviors from people in your social support network?

- When thinking about stress assessment, it's important to know where you are starting, which is the purpose of these five questions about frequency, cause, duration, impact, and coping.

The Relaxation Response

- Somatic quieting is a relaxation strategy in which we are essentially creating what is called a relaxation response, or the opposite of a stress response. We are battling two primary physiological stress pathways: the hypothalamic-pituitary-adrenal

(HPA) axis, which is responsible for secreting a stress hormone called cortisol, and the sympathetic-adrenal medullary system, which is responsible for secreting epinephrine or adrenaline and causes the fight-or-flight response.

- The "relaxation response" is a term that was coined by Herbert Benson in his book *The Relaxation Response* in 1976. Essentially, it is the opposite of the stress response. As opposed to the stress response, in the relaxation response, we get a decrease in respiration, heart rate, blood pressure, and stress hormones.

- How do we get to the relaxation response? Fortunately, there are a number of different ways we can accomplish this goal. We usually need some form of focused concentration—maybe on your breath or on a guided image—a quiet environment, and a passive attitude of allowing yourself to slowly sink into the process of relaxation.

- Both stress and relaxation are mediated by the autonomic nervous system. Throughout the day, think about events that trigger your autonomic nervous system that either push you up or push you down—maybe getting an obnoxious e-mail from a coworker, arguing with the bank about refinancing your mortgage, getting an extra-long hug from a grandchild, or unwinding in a bubble bath with soft jazz playing in the background. It's all about the outside events getting inside through our autonomic nervous system, and it behooves us to be aware of it and potentially to change it.

The Basic Cognitive Behavioral Model of Stress

- Stress affects cognitions, emotions, and behaviors, but it is also affected by—or maybe even caused by—cognitions and behaviors. On the cognitive side, there is the special kind of cognition called appraisals.

- Appraisals come in two different forms. The first kind is primary appraisals, which are our thoughts about the nature of a stressor. Is it big? Is it small? Is it threatening? Does it matter? How is it going

The relaxation response—mediated by the autonomic nervous system—involves decreases in respiration, heart rate, blood pressure, and stress hormones.

to influence you? How likely is it that it will actually happen? The second kind of appraisals is called secondary appraisals, which have to do with our estimations of our coping skills and coping resources.

- If you have a very high or strong primary appraisal—it's a very big stressor that's likely to happen—and you have very low secondary appraisals—you don't know what to do and you don't have any coping resources—then your experience of stress is likely to be quite high.

- From a cognitive behavioral perspective, what might go wrong is that an individual's appraisals might be out of sync with reality, or they might be out of touch with their actual coping skills or coping abilities.

- What about the selection of coping strategies? Coping behaviors can be classified into two different categories. Emotion-focused coping focuses on changing your emotional state to help you feel better. Somatic quieting falls in that category. Problem-focused coping focuses on the problem. For example, you might get to work studying for a test that is causing you to be stressed.

- One coping behavior is not necessarily better than the other. It depends on what needs to be done at the time, and you need a balance between the two kinds of coping. CBT data helps by allowing you to analyze your preferred coping styles and determine whether or not you're selecting the most adaptive strategies.

- You want to select behaviors. You might select behaviors that evoke a relaxation response, which would fall into the category of emotion-focused coping. You might decide to reach out and ask your social supports for help. That could be emotion-focused coping, but it might also be problem-focused coping.

- You could have task-oriented behaviors. If you're really stressed about the state of your home, you might decide to do some home improvements, which would be problem-focused coping. You could also just decide to schedule pleasant activities, things that bring you a sense of joy or that at least allow you to escape an unchangeable stressor for a short period of time.

- Most of the high-quality research in the realm of cognitive therapy for stress management is done by Michael Antoni at the University of Miami. He essentially wrote the book on what's called cognitive behavioral stress management (CBSM). He has conducted a number of studies on "regular" people but also on people who have chronic medical stressors, such as HIV, cancer, or chronic fatigue.

- The most common outcomes Antoni is analyzing are depression, anxiety, and quality of life. For people with medical conditions, he is sometimes looking at adherence to treatment or the progression or slowing of their particular illness.

- Antoni has found fairly strong support for a mix of cognitive restructuring (wrestling with those thoughts), relaxation, coping skills, assertiveness, and being able to—and feeling entitled to—ask for the support that you need.

- In an interesting study of CBSM in 2014, Antoni and his colleagues studied women with breast cancer. They did a five-year follow-up using CBSM and found that women with breast cancer who underwent this particular mixed treatment had less depression and a higher quality of life.

Mindfulness-Based Stress Reduction

- Mindfulness-based stress reduction (MBSR) is a third-wave type of stress-reduction intervention. It is a modern variant of meditation and yoga that has been applied to stress reduction. Like meditation, it builds concentration, present focus, acceptance, and somatic quieting. It was developed by Jon Kabat-Zinn at the University of Massachusetts and has since been applied to a wide range of medical problems, but it all started with chronic pain.

- Most MBSR programs last about eight to 10 weeks. They consist of two-and-a-half-hour daily classes and often will have a single-day or maybe weekend retreat at the end. It's not particularly spiritually based, but there is certainly a Buddhist element, and there are Buddhist roots to the mindfulness that these individuals are learning.

- MBSR has been shown to improve chronic pain, low back pain, pain in general, stress, and mood. An interesting study even showed improvements in immune function.

- In 2004, Paul Grossman and his colleagues published a meta-analysis in the *Journal of Psychosomatic Research*. They analyzed 20 high-quality MBSR studies that covered a wide spectrum of patients—including individuals with cancer, pain, cardiovascular disease, depression, and anxiety—and they looked at the standardized measures of physical and mental well-being. Across the board, they found moderate to strong effect sizes.

Suggested Reading

Antoni, Ironson, and Schneiderman, *Cognitive-Behavioral Stress Management*.

Benson and Klipper, *The Relaxation Response*.

Davis, Eshelman, and McKay, *The Relaxation & Stress Reduction Workbook*.

Gawaine, *Creative Visualisation*.

Grossman, Niemann, Schmidt, and Walach, "Mindfulness-Based Stress Reduction and Health Benefits."

Kabat-Zinn, *Full Catastrophe Living*.

Lazarus and Folkman, *Stress, Appraisal and Coping*.

Lehrer, Woolfolk, and Sime, *Principles and Practice of Stress Management*.

Sapolsky, *Why Zebras Don't Get Ulcers*.

Snyder, *Coping*.

Stagl, Antoni, Lechner, Bouchard, Blomberg, Glück, Derhagopian, and Carver, "Randomized Controlled Trial of Cognitive Behavioral Stress Management in Breast Cancer."

Measure your personal stress with the following web-based inventory.

Hassles Scale:

http://www.possibilitiesamplified.com/downloads/Health-Hassle-Scale.pdf.

Assess your personal coping style with the following web-based inventory.

Brief COPE:

http://www.psy.miami.edu/faculty/ccarver/sclBrCOPE.html.

Anxiety and Fear

Lecture 6

In this lecture, you will learn about fear and anxiety, which are adaptive functional features within the human emotional repertoire that only sometimes misfire and cause impairment. However, when they are excessive—when they do misfire—they can cause a great deal of pain and suffering. Although CBT was originally developed as a treatment for depression, the developed tools have proven effective in managing anxiety and a number of other disorders. The classic milieus of CBT tools are about the same, but in this case, we focus on the misperception of threat at excessive physiological arousal and the avoidant behaviors that often come with anxiety.

Fear and Anxiety

- The family of anxiety disorders includes phobias, obsessive-compulsive disorder, post-traumatic stress disorder, social anxiety, panic, and generalized anxiety disorder. Fear and anxiety are psychological and physiological responses to danger.

- In general, fear is conceptualized as an emotional and physiological response to a definite threat. Think about your fight-or-flight reactions, the sympathetic nervous system. Fear is basic, primal, and gripping. Its purpose is to keep us alive.

- Anxiety is different. Anxiety is a diffuse, unpleasant, vague sense of apprehension. It is influenced by culture, cognition, personality, and a number of other internal factors. Anxiety can trigger fear, and fear can result in lingering anxiety.

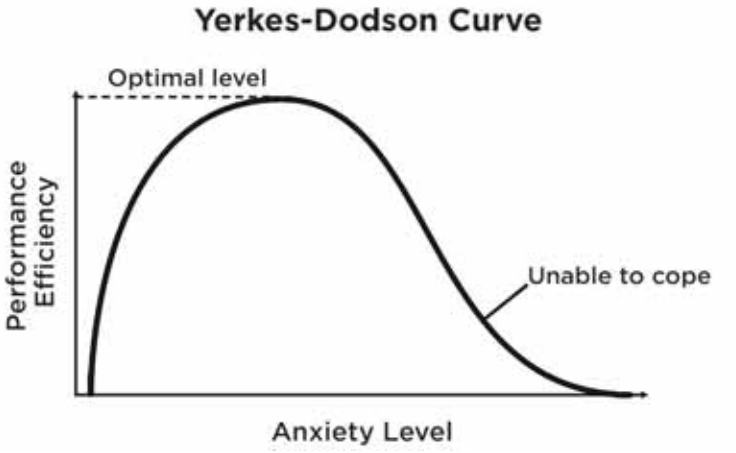
- Fear and anxiety are protective emotional reactions in response to real or anticipated threats. They can be healthy, and they can be central to our essential harm-avoidance systems. An anxiety disorder, however, refers to a heterogeneous group of syndromes

characterized by abnormally increased sensitivity to fearful stimuli, inappropriately intense experience of fear and anxiety, or inappropriately extreme action based on fear or anxiety.

- There is a wide range of what is considered normal in the population, and there are large cultural differences in what is considered normal, as well. But, in general, the diagnosis of an anxiety disorder is based primarily on the degree of interference with normal function at work and in your social or personal life.

- A little anxiety is actually a good thing. In fact, it might even improve performance. The Yerkes-Dodson curve, which is an inverted-U function, reminds us that low levels of arousal equal low levels of performance. We just don't care; we haven't risen to the occasion. Moderate levels of stress, anxiety, or arousal increase our level of performance: We are energized to face whatever challenge is ahead of us. Higher levels of arousal lower our performance because now we're overwhelmed with our stress or anxiety.

- For anxiety disorders though, the anxiety has gotten so extreme that it has taken on a life of its own. In a way, the disorder becomes the stressor. It becomes a mental illness.



- A person who is impaired and often frozen by anxiety would meet the diagnostic criteria for social anxiety disorder, or what used to be called social phobia. In addition to social anxiety disorder, there are a number of other anxiety disorders.

- Generalized anxiety is mostly about worrying. With a panic disorder, an individual has a panic attack and is worried about when the next attack might happen. Additional anxiety disorders include obsessive-compulsive disorder, specific phobias (such as fear of heights or fear of spiders), and post-traumatic stress disorder.

- As with any patient in CBT, you would first want to do a semi-structured diagnostic interview. Then, you might send the patient home with a packet of questionnaires and some self-monitoring homework regarding his or her social contacts.

Measuring and Treating Anxiety

- Some of the questionnaires that are good for measuring anxiety include the Beck Anxiety Inventory, which is the classic questionnaire named for Aaron T. Beck. In addition, the Anxiety Sensitivity Index, developed in 1992, is a 16-item questionnaire that is especially predictive of panic attacks and panic disorder. The Anxious Self-Statements Questionnaire, developed by Steven Kendall and Philip Hollon, is a 32-item questionnaire that focuses on cognitions. The GAD-7, a seven-item questionnaire about worry and anxiety, is commonly used in primary care settings. The DASS 21 measures depression, anxiety, and stress at the same time.

- There are medications that can be helpful for anxiety. They tend to fall into two categories. The first category is antidepressants. Even though they were initially developed for depression, antidepressants work for many anxiety disorders as well. The second category of drugs is the benzodiazepines. These are antianxiety drugs, such as Xanax, Ativan, and Klonopin. All medications tend to have side effects and pros and cons to taking them, and it's a personal decision whether someone wants to go that route.

- The other route available is CBT, with its cognitive and behavioral interventions. Recall that the CBT triangle involves emotions, thoughts, and behaviors. The components for anxiety disorders would include behavioral interventions, such as exposures to a feared stimulus. When an individual is anxious, he or she often avoids the things that make him or her anxious, so we want to diminish those avoidant behaviors. Cognitively, we want to challenge those thoughts about threats in the environment, or about not being able to cope with something, or about not having adequate coping resources.

- We also would want to teach a mix of cognitive behavioral exercises, including reality testing, helping the individual build a sense of confidence or mastery, and relaxation, or somatic quieting.

Exposure Therapy

- Avoidance behaviors, or safety behaviors, are very natural. When an individual is afraid, he or she avoids the thing that makes him or her fearful. For example, if an individual has social anxiety and is afraid of connecting with people, he or she might engineer his or her life and situations so that he or she has as little contact as possible with other people. The problem is that this prevents the individual from connecting with others.

- In this case, we want to do some exposure therapy. In particular, we want to do a kind of therapy called systematic desensitization, which involves systematically desensitizing the individual to the things that cause him or her anxiety. We'll start by having the individual construct something called an anxiety hierarchy using subjective units of distress (SUDS) ratings. This involves creating a list of sources of anxiety and rating them on a scale from 0 (no anxiety) to 100 (unbearable anxiety).

- Once all the levels of the patient's SUDS hierarchy have been fleshed out, we would then tell him or her to start at the bottom of the scale—something that causes him or her very little to no

anxiety—and between this appointment and the next, we would want him or her to experience that event as often as he or she could until it loses its charge.

- Once the patient was successful in doing that, he or she would climb to the next rung on the ladder, and then the next rung, and so on. What's important is that the patient is in charge, because this is the hierarchy that he or she created for himself or herself, and he or she can go as quickly or as slowly as he or she wants to. Eventually, the patient should develop a sense of mastery at overcoming his or her anxiety.

- But does exposure therapy work? In 2006, a comprehensive review of studies was conducted by Yujuan Choy, Abby Fyer, and Josh Lipsitz that looked at systematic desensitization and in vivo, or live, exposure. They found that the live, intense exposure all at once was most effective, but people didn't like it and tended to drop out of it, so it was a little too intense. What seemed to work better, and people stuck with it more consistently, was systematic desensitization, creating a hierarchy and slowly working their way up the hierarchy.

Subjective Units of Distress (SUDS)

100	• giving a wedding toast (100)
	• making a presentation at work (80)
75	
	• going to a party (70)
	• conducting a performance review (60)
50	
	• interacting with an acquaintance (30)
25	
	• making a phone call (20)
0	• reading a book (0)

- On the cognitive side, we might also want to teach the patient to do a thought record as a way to wrestle with his or her cognitions. In fact, the patient might do some of this while working up the ladder of the SUDS hierarchy.

- After the patient has gone out into the world and tried to tackle the sources of anxiety one by one, he or she is going to come back and tell us how it went. If it seems like this exercise was a success, we would want to repeat the symptom measures to ensure that his or her anxiety scores were indeed dropping.

- In addition, we would want to make sure that we're working in service of the patient's goals, with a special focus on increasing the quantity and quality of social contacts, for example. We also would move to give him or her more control in developing assignments. As the therapy progresses, we want the therapist to step back and the patient to step up—so that the patient becomes not just a partner but potentially the leader, the driver, in his or her own therapy.

Suggested Reading

Allen, "Cognitive-Behavior Therapy and Other Psychosocial Interventions in the Treatment of Obsessive-Compulsive Disorder."

Bandelow, Seidler-Brandler, Becker, Wedekind, and Rüther, "Meta-Analysis of Randomized Controlled Comparisons of Psychopharmacological and Psychological Treatments for Anxiety Disorders."

Beck and Emery, with Greenberg, *Anxiety Disorders and Phobias*.

Bourne, *The Anxiety and Phobia Workbook*.

Butler, *Overcoming Social Anxiety and Shyness*, p. 226–233.

Choy, Fyer, and Lipsitz, "Treatment of Specific Phobia in Adults."

Frewen, Dozois, and Lanius, "Neuroimaging Studies of Psychological Interventions for Mood and Anxiety Disorders."

Hunot, Churchill, Teixeira, and Silva de Lima, "Psychological Therapies for Generalised Anxiety Disorder."

Mitte, "A Meta-Analysis of the Efficacy of Psycho- and Pharmacotherapy in Panic Disorder with and without Agoraphobia."

Questions to Consider

1. If anxiety is often based on a misperception (exaggeration, for example) of external threats, then why doesn't reality provide a corrective experience over time? For example, why don't people just get over phobias of spiders or dogs or heights, assuming that bad things don't keep reinforcing those fears?

2. What's the distinction between introversion, shyness, and social anxiety? Is there a risk of overpathologizing people who aren't outgoing or popular?

Treating Depression

Lecture 7

Depression is a common condition. At the far end of the spectrum of depression, it is considered a medical disease that has medical treatments. In this lecture, you will learn about depression. Specifically, you will explore the epidemiology (how the disease spreads and can be controlled) and etiology (the causes of the disease) of this medical disorder. In addition, you will learn about the leading treatments for depression and emerging treatments on the horizon.

Depression

- There is a continuum of depression, with a medical disorder—a serious chemical imbalance—on one end and everyday sadness on the other end. Many of us have been somewhere on that continuum, often after we've had a particular loss of some sort. Many of us have experienced grief or the loss of a loved one. Many times, that sadness, or depression, is considered nonpsychiatric, even though it might be helpful for an individual to talk to someone.

- However, some individuals go beyond the level of everyday sadness and develop a full-blown major depressive episode. In a major depressive episode, an individual has a depressed mood most of the day nearly every day and/or a loss of interest in his or her normal, everyday activities for at least two weeks or longer.

- In total, the individual has to have a total of five symptoms from a list of nine hallmark symptoms of depression. There must be significant impairment or distress at work, at home, or both.
    - A sad or low mood. Sometimes it manifests as an irritable mood, particularly in men.

    - Anhedonia. This is where an individual is unable to enjoy things that he or she normally enjoys.

- Changes in appetite or weight. This is a dysregulation, so it could go in either direction; you could have increases or decreases in weight.

- Changes in sleep. You could have hypersomnia or insomnia. You'll see differences in the way a patient moves or in his or her energy levels.

- Psychomotor agitation or psychomotor retardation. Psychomotor agitation is where the patient is shaky and jittery; psychomotor retardation is often described by patients as feeling like they are moving underwater or moving through molasses.

- Poor concentration or memory. This might manifest as difficulty following conversations, difficulty reading, or difficulty remembering particular events.

- Fatigue and low energy.

- Feelings of worthlessness or guilt.

- Suicidal ideation.

- There are a number of different instruments and questionnaires that are available online for assessing the full continuum of depression. The first is the classic Beck Depression Inventory. Beck also created the Hopelessness Scale, which is a 20-item scale that was found to be particularly useful in predicting suicidal behaviors. The Patient Health Questionnaire-9 (PHQ-9) focuses on depression and is commonly being used in primary care settings.

The Beck Depression Inventory and the Beck Hopelessness Scale, along with other tools for assessing depression, can be found at the following website:

www.beckinstitute.org/beck-inventory-and-scales/

- Other questionnaires are measures of cognitive styles, such as the Dysfunctional Attitude Scale, the Automatic Thoughts Questionnaire, and the Attributional Style Questionnaire.

The Epidemiology of Depression

- Major depressive disorder affects about 15 million adults—about seven percent of the population that are 18 years old and over. The lifetime prevalence is about 17 percent, and the rates are double in women when compared to men. The average age of onset is about 32 years, but major depression, the disease, can strike at any particular age, from children to adolescents to older adults. Major depressive disorder is the leading cause of disability in the United States for people of ages 15 to 44.

- Fortunately, a major depressive episode usually remits within 12 to 24 months, even if untreated. However, once you've had one episode of major depression, you have about a 50 percent chance of having a second episode. If you've had two episodes, you have a 70 percent chance of having a third episode. If you've had three episodes, you have a 90 percent chance of having a fourth episode. The more episodes you have, the more likely you are to have the next episode.

- In terms of prognosis for depression, the thing that we worry most about is suicide. In the United States, suicide is the eighth leading cause of death, accounting for about 32,000 deaths per year.

- Fortunately, there are quite a few treatments that are effective in treating a number of different kinds of depression in many different populations and age ranges. There is behavior therapy—not looking at cognition, just the behavioral component. There is the combined cognitive and behavioral therapy (CBT).

- In addition, there is interpersonal therapy, which looks at transitions in an individual's life. It looks at the core areas of work and home as well as core contributors to an individual's sense of self and

well-being and how those might have been broken or somehow become disconnected. It's also short term and fairly standardized, much like CBT.

- Furthermore, there is pharmacotherapy, or a number of different kinds of antidepressants. In fact, it seems that more and more antidepressants are developed each decade.

CBT Perspectives on Depression

- We're going to look at the CBT triangle: emotions, thoughts, and behaviors. With depression, the emotion that we're talking about is sadness. It might have an element of stress, of feeling overwhelmed, or of feeling worthless or hopeless.

- According to Beck's cognitive model, the thoughts are about the self, about others, and about the world. For a depressed individual, all of those are quite pessimistic and negative. For the behaviors, there's a special relationship between behaviors and depression: When an individual becomes depressed, he or she tends to become behaviorally inactivated.

- CBT for depression can be divided into four stages. Of course, these stages can be adapted depending on where an individual is starting and depending on what his or her particular interests or abilities might be.
    - In general, for stage one, you start with education about the disorder and about CBT. We want to start the process of data collection—collecting information maybe on behaviors, maybe on cognition, maybe on both. We will teach them about the three downward spirals.

    - Stage two is called behavioral activation and mood monitoring. If a patient has become deactivated because of his or her depression, we want to turn that around. If the patient has been spiraling downward, we want to help reverse that spiral and start spiraling up.

- For stage three, we address cognition by having the patient engage in thought records, cognitive challenges, and exercises.

- In the fourth and final stage, we might have to make social and environmental changes. A lot of depression might reside within an individual, but it also might be driven by things that are in his or her environment that probably need to change.

The Four Stages of CBT for Depression

- Cognitions, behaviors, and social contacts are three depressive spirals that a patient might find himself or herself in. Depressive spirals are explained to patients in the first stage of treatment for depression with CBT as part of the education phase.

- We tell patients that cognitions and depression are very much related. A depressed mood causes an individual to think more negatively and have more negative biases. But when a person thinks more negatively, that causes him or her to become more depressed, which causes him or her to think more negatively, and so on. The individual is spiraling downward because of the relationship between cognition and depression.

A depressed mood causes an individual to think more negatively, which causes that individual to become more depressed, which triggers a depressive spiral.

- For behavior, it's a similar story. A depressed mood causes inactivity, which lowers mood, which further lowers activity. Social contacts are the same: When an individual is depressed, it lowers the number of social contacts he or she has; the person doesn't enjoy his or her contacts as much as before and might be more sensitive

to rejection than before. The individual pulls away from others, but that makes him or her more depressed, which makes him or her pull away more.

- In addition to education, the first stage of CBT for depression involves data collection. To elicit data, we would most likely start with an exercise called activity monitoring. We would ask the patient to start recording all of his or her activities, or at least the highlights, throughout any given day and throughout the week in an activity log. We would also ask him or her to rate his or her mood on a 1-to-10 scale at the end of each day. We would ask him or her to note potential relationships between the activities he or she has chosen to do in a day and his or her mood at the end of that day.

- As part of the second stage, behavioral activation, we could also use this same activity record to do something called activity scheduling. It could be used as a sort of diary to document what the patient has done, or it could be used to prospectively look into the next week and determine when there is time to make plans with another individual or to do something that might have a positive impact on the patient's mood.

- Both before and after the activity is completed, the patient should rate the level of pleasure that he or she expected to experience and actually experienced. Often, patients find that the activity was much more pleasurable than their depression had predicted it would be.

- In the third stage of CBT for depression, cognitive restructuring, we want to look at the constellation of cognitions that tend to cluster around negative thoughts about the self, about others, and about the world.

- There are different ways to measure these cognitions. You can do a thought record or interview the patient, but you can also use questionnaires, such as the Dysfunctional Attitude Scale (DAS). The DAS used to be quite long—about 100 items—but it has been reduced to only 40 items. It's particularly good at measuring

self-critical thoughts and unrealistic expectations about the self, including things like perfectionism. It's also useful in helping to predict who is going to do well in terms of being able to treat or remit their own depression.

- We also want to teach patients about the common habits of mind. Often, we make particular shortcuts that aren't very rational in terms of how we understand or explain the events happening in our world. We may use personalization, magnification, or minimization. We may selectively attend to all of our failures or things that just didn't go well. We may use all-or-none thinking. We may imagine or tell ourselves what we believe that other people are thinking. We may use fortune-telling. When someone is depressed, he or she has very dire and pessimistic predictions about the future.

- The fourth and final stage of CBT treatment involves social and/or environmental changes. This might include having the patient reach out to any friends that he or she might have lost touch with. We might also encourage the patient to join a support group, because it is often helpful to talk to other people who have had similar experiences.

- In addition, there are quite a few effective medications for depression. Research has shown that medications and CBT are equally effective for mild to moderate depression at the end of treatment and at a six-month follow-up. But if you go further out, it looks like CBT is superior to medications, unless a person wants to be medicated for the remainder of his or her life. In more severe cases, a combination of medications and CBT might be necessary, but it depends on the patient's preferences.

Suggested Reading

Beck, et al, *Cognitive Therapy of Depression*.

Brown, Beck, Steer, and Grisham, "Risk Factors for Suicide in Psychiatric Outpatients."

DeRubeis, Hollon, Amsterdam, Shelton, Young, Salomon, O'Reardon, Lovett, Gladis, Brown, and Gallop, "Cognitive Therapy vs. Medications in the Treatment of Moderate to Severe Depression."

Frewen, Dozois, and Lanius, "Neuroimaging Studies of Psychological Interventions for Mood and Anxiety Disorders."

Segal, Vincent, and Levitt, "Efficacy of Combined, Sequential and Crossover Psychotherapy and Pharmacotherapy in Improving Outcomes in Depression."

Williams, Teasdale, Segal, and Kabat-Zinn, *The Mindful Way through Depression*.

Questions to Consider

1. Complete your own depression inventory. What was your score, and what does it mean? Be sure to discuss with a health professional if needed.

PHQ-9:

http://www.patient.co.uk/doctor/patient-health-questionnaire-phq-9.

2. Recent epidemiological research has shown that the rates of depression in developed countries have been escalating for the past 50 years, despite impressive advances in diagnosis and treatment options. What explanation might account for this finding? What remedy might best address this problem?

Anger and Rage

Lecture 8

Aaron T. Beck's cognitive model involves beliefs about the self, the world, and others. With anger, the typical family of cognitions has to do with the perception of being unjustly treated, wronged, or cheated in some way. There's also a biological component to anger. Often, it is driven by our amygdalas—located deep in the center of our more primitive animal brains—which give us a quick surge of adrenaline and/or energy. In this lecture, you will learn about anger and how to deal with it.

Anger and Anger Management

- Anger is regulated by culture and potentially by rules about how a particular sex or gender might be able to act. Many more men go to therapy for anger issues than women, and often those men aren't necessarily angry, but they're depressed. Society tells them that it's not okay for a man to be vulnerable or depressed, but it is more acceptable for him to be angry. Hence, he becomes angry.

- If we're using the cognitive model of anger, we're going to want to look at the triggering event. This varies from individual to individual, because it's not so much about the activating event—it's about the way we interpret the event through the activating or automatic thoughts we have.

- We want to first work on the patient's level of general arousal, or pre-anger state. If someone's reserves are on empty at a particular point in time, his or her trigger is going to be much more sensitive in terms of responding to a negative event. We want to look at the appraisals of those events, the automatic thoughts.

- Two cognitive errors are overpersonalization and magnification. We might want to see if we can change the patient's autonomic nervous system. This would include targeting the relaxation response. It is

nearly impossible to be extremely angry but to be relaxed at the same time; the two are mutually exclusive. So, if we teach someone to have more reserve—to be closer to a state of relaxation—he or she is less likely to get angry.

- Anger management is used to change cognition and behavior. There are many different kinds of anger management programs, but they include some common elements. One of these elements involves first improving the early detection of how an individual is feeling. Anger picks up steam over time, so if you catch it very early in the process, you have a much better chance of being able to regulate how you're feeling and to not act out behaviorally on a particular impulse. The longer you wait, and the angrier you get, the less likely you're going to be able to control your angry reaction.

- The next common element has to do with identifying the cause of the anger. There was something in the environment, something you remembered, or something you think might happen in the future that caused you to be angry. Emotions, including anger, are important because they often tell us information about our environment and are often what we notice first. So, if you suddenly feel anger, you need to pause and reflect on whatever triggered your anger.

- The next component of many anger management programs is an assessment of whether or not it's worth the investment of energy and resources to get angry. There are small triggering events as well as large triggering events. Anger, whether it is in response to something small or large, takes a toll on our bodies, particularly on our relationships. So, is it worth the investment?

- The final common component of anger management programs has to do with problem solving. Is this event that happened, or this wrong that occurred, a problem? Is it something that can be changed or rectified? From a CBT perspective, we would look at automatic thoughts and, specifically, habits of mind, such as personalization and magnification. We will work to hopefully decrease hostile

fantasies, or when an individual is triggered for anger and then starts to imagine all sorts of things he or she is going to say or do. Anger management strategy teaches you to capture the process early and take your mind elsewhere.

- Third-wave therapies teach us that it's not necessarily effective just to tell yourself not to think angry thoughts—sometimes that actually makes you think angry thoughts. Instead, they teach us to use distraction and relaxation. Preoccupy yourself with something else to take your mind out of those angry ruminations. There are a number of different somatic quieting modalities that an individual could try, from meditation to deep breathing.

- Another intervention that we might try for individuals who are unable to think clearly and communicate constructively—particularly if we're talking about couples therapy or family therapy—is calling a time-out, in which we ask individuals to step out to do some somatic quieting and to cool off.

- We also want to look for other things that might be impairing an individual's judgment. For example, if someone is drinking too much, it lowers his or her inhibitions, makes his or her anger more readily available, and makes it more difficult to regulate his or her emotions.

- Sometimes anger is simply the surface manifestation of something else. The individual may be very stressed, may have a lot of physical or psychic pain, or may be fatigued. If there is an underlying cause, we want to make sure that we address that underlying cause.

- A potential cause of poor anger regulation is a failure to remember the humanness of the object of your anger or the impact that your rage might have on them. For example, when angry, many people might say something in a particular way in an e-mail that they would never say to another person if they were face to face.

- One of the things you want to determine up front is whether or not an individual feels remorse or guilt as a consequence of his or her anger. If the individual does, then you have something that you can build upon.

- If we want to build empathy, then we can use a seven-column dysfunctional thought record (DTR), sometimes called a daily thought record. It takes more time to do this particular exercise than an ABCD exercise, for example, but it provides more information. The critical part, as with the ABCD exercise, is in reconstructing or restructuring the cognitions.

The Seven-Column DTR

- The seven-column DTR includes prompts to think about, such as evidence for and evidence against a particular thought. Essentially, it prompts a rational analysis of a situation. It reminds us that thoughts aren't facts; instead, thoughts are opinions, and we should always weigh, consider, and potentially change those opinions. This approach is preferred for particular personality types, especially for those with legal backgrounds.

The dysfunctional thought record can be found at the following website:

http://psychology.tools/dysfunctional-thought-record.html

- There is also a set of prompts that you can use to help yourself soften up an emotionally charged thought and to start rewriting it. Some of those prompts might include the following.
  - If my best friend had this thought and I wanted to help him or her see things differently, what might I say?
  - Am I using a habit of mind? Am I using all-or-none thinking? Am I maximizing or minimizing? Am I doing mind reading?
  - Have there been times or situations when this thought doesn't or hasn't seemed true?

- If I were to pretend to do a U-turn in my beliefs, what might I say or think instead?
- When I've felt or thought this way in the past, what helped me?
- Is this thought balanced? Is it fair?
- What's the worst-case scenario? Can I live with that?
- Will I care about this five years from now? Is it really worth the investment right now?
- Are there any positives, maybe a silver lining that I'm not seeing?

- In the final column of the DTR, the patient rerates the intensity of his or her emotion to assess whether or not the cognitive restructuring has lessened the intensity of the emotion. If it hasn't, then there's probably more work to do.

- The seven-column DTR can help with anger, but it is a tool that we can use with nearly any scenario. As always, the patient has a role in helping to select the tools that resonate with him or her.

CBT and Anger

- Does CBT work for anger? A study by Margaret-Anne Mackintosh and colleagues in 2014 involved a group anger management programs in a sample of 109 veterans who had post-traumatic stress disorder. They looked at potential mechanisms that helped the veterans get control of their anger.

- They found that the veterans were able to better regulate their anger at the end of group therapy, but there were two skill sets in particular that seemed to be most helpful: calming skills (somatic quieting skills) and cognitive restructuring. When they compared

the power of those two, they found that the strategy of calming skills was slightly more powerful than cognitive restructuring, but both were helpful.

- In 1998, Richard Beck and Ephrem Fernandez did a meta-analysis of 50 studies of CBT for anger. They found that the CBT patients did about 76 percent better than untreated patients for their reduction of anger. In 2005, Nana Landenberger and Mark Lipsey looked at 58 studies of CBT for violent offenders. They found that those individuals also responded positively in being able to regulate their anger, and recidivism, or bouncing back to jail once they got out, dropped by as much as 25 percent.

Consequences of Anger

- Anger does not just have consequences on social or professional relationships; it also has consequences for the individual. Type A personality is a behavioral and emotional style marked by an aggressive, angry, hostile struggle to achieve more and more in less time, often in competition with others. Studies have shown that the key element that causes issues for individuals is the hostility.

Research has shown that cynical hostility in men is associated with having a first heart attack.

- Research on hostility and cardiovascular events has shown that hostility in a sample of young students predicted the calcification of arteries 10 years later. In addition, studies have shown that the health hazard ratio was increased by about 25 percent if an individual has high scores in hostility. Furthermore, hostility, especially cynical hostility in men, is associated with having a first heart attack. The damage hostility causes begins early and usually takes decades to matter.

- One of the first studies to show that we can manage our emotions and improve our cardiovascular health was published by Meyer Friedman, the individual who coined the term "Type A personality." In the study, published in 1986, men who had just had their first heart attack were placed in a Type A intervention group. Some of them had supportive group therapy; some of them had interventions that were specifically targeting hostility. In the Type A intervention group, there was a recurrence of cardiac events only 13 percent of the time, compared to the usual care group, which had a recurrence of 28.2 percent of the time.

Suggested Reading

Beck, *Prisoners of Hate.*

Beck and Fernandez, "Cognitive-Behavioral Therapy in the Treatment of Anger."

Chida and Steptoe, "The Association of Anger and Hostility with Future Coronary Heart Disease."

Friedman, Thoresen, Gill, Ulmer, Powell, Price, Brown, Thompson, Rabin, Breall, et al, "Alteration of Type A Behavior and Its Effect on Cardiac Recurrences in Post Myocardial Infarction Patients."

Iribarren, Sidney, Bild, Liu, Markovitz, Roseman, and Matthews, "Association of Hostility with Coronary Artery Calcification in Young Adults."

Landenberger and Lipsey, "The Positive Effects of Cognitive-Behavioral Programs for Offenders."

Lipsey, Landenberger, and Wilson, "Effects of Cognitive-Behavioral Programs for Criminal Offenders."

Mackintosh, Morland, Frueh, Greene, and Rosen, "Peeking into the Black Box."

Salzberg, *Loving-Kindness*.

Questions to Consider

1. How was anger expressed in your family, and who was "allowed" to express it? Did you adopt a similar style? Have you worked to change your style of anger?

2. How can you differentiate between "true" anger and anger that is used to cover up shame, embarrassment, or insecurity? How often do you think that people use anger as a cover? What can you do about it?

Advanced Cognitive Behavioral Therapy

Lecture 9

This lecture moves from a basic cognitive restructuring to a more in-depth look at the seven-column dysfunctional thought record (DTR) with regard to treating anxiety, depression, or anger. In addition, you will learn how to fill out a core beliefs worksheet. You also will learn about what happens when an exercise fails. But even when things go wrong, it's all useful work. As the patient does his or her homework, he or she is learning and growing.

The Seven-Column DTR in Practice

- If a patient tends to have thoughts that devalue him or her in terms of how likable, lovable, or interesting he or she might be and thoughts that amplify or magnify potential dangers that are in the environment or possible negative reactions that other individuals might have toward him or her, we want to help the patient see those recurring thoughts, or recurring themes, and help build up his or her muscles in having common helpful responses that come quickly.

- The advantage of acknowledging the patterns is that when the patient is out of the moment—when things aren't going so well—then he or she can write detailed responses that are convincing and meaningful for him or her and then call them to mind much more quickly than if the patient hadn't gone through this exercise.

- There might be certain well-rehearsed negative thoughts that will pop into a patient's mind in social situations, but once he or she is prepared, his or her negative thoughts will pop back out of the mind almost as quickly.

- We're going to discuss how to fill out each of the seven columns of the DTR, specifically focusing on places where individuals tend to get stuck. This is a core skill, and it is one of the more complex skills that you'll do in cognitive therapy.

- First, we need to address how to identify an event. This is the first column on the seven-column DTR. There are all sorts of events that you could choose from.

- If you're early in the process of learning how to do this, it is recommended that you pick one that has a mild to moderate level of emotional intensity. You don't want something so charged that it's difficult to finish the exercise. If you're more advanced, move from moderate to something that's more severe.

- When you describe the event in the first column, you want to keep it fairly neutral. There's no interpretation. It's just the facts. It's just the context. It's just the circumstance.

- In the next column, you want to describe the emotion. You want to rate it in intensity from zero to 100, with 100 being the most intense. If necessary, if you're having trouble coming up with the right words to describe the emotion you had, consider creating a sort of emotional thesaurus that can help you whenever you need to be able to put a word to a feeling that you are having.

- Many people struggle with the next column, in which you actually capture the automatic thoughts portion, but here are a few tips that might help you. You might ask yourself the following questions: At this moment, what was going through my mind? What images or memories did this particular activating event evoke for me? What meaning did I assign to it? What does it say about me or my future? If I were to put words to the feelings I had, how would I describe them?

- You might want to use a technique called the downward arrow to try to dig a little bit deeper. For example, some common automatic thoughts might be about anger and some sort of injustice. The patient might tell us that someone is disrespecting him or her. Then, we would ask the patient, what does it mean if you let someone get away with disrespecting you? The patient might respond, "It means

that I'm weak and I'm asking to be abused again." We might say, what does it mean if you're weak? The patient might say, "It means that I'm a loser and that no one likes me."

- The purpose of this technique is to drill down to get to the heart of the matter—to get at the underlying belief. If you're able to work with that underlying belief, you'll probably be more effective in changing your mood.

- The next two columns involve finding evidence for and against the automatic thought. Sometimes this comes very easily to people, and others might struggle with it. You might ask yourself the following questions: What are the facts, and what are the opinions? What are the assumptions or guesses that I might be making? What has happened in the past in similar situations or with other people? Are my automatic thoughts using habits of mine? Am I using all-or-none language? Am I saying things like "always" and "never"? Are there other habits of mine, such as overpersonalization or magnification, that I might begin to shrink down a bit?

- You should think of yourself as an investigative team of sorts. If you're completely stuck, you can also run the thought record by a loved one or friend, or you can do a behavioral experiment. For example, if you have the belief that you're socially invisible—that even if you try, no one wants to interact with you—then you would design a behavioral experiment where you go into a social situation and test out whether or not people interact with you and whether or not you're truly socially invisible.

- The next column involves how you arrived at the new thought. This is one of the more challenging parts. You can use a strategy called "yes, but," which acknowledges some of the truth in what you originally thought but that there is another side. For example: Yes, I at times seem invisible in social situations, but I can change my behavior to reach out more to others.

- You want to go for balance or at least softening and qualifying those automatic thoughts. You might try for perspective. What's the worst-case scenario? Will this matter in five years? Is there a silver lining? Is there a bigger picture? What we want to do is help you find a more compassionate, caring, and forgiving way to think about the situation, and then rewrite it.

- The final step is to rerate the intensity of the emotion. Did the intensity decrease? If not, go back and try to figure out why. Did you pick the right automatic thought? Do you need to dig a little bit deeper, using something like the downward arrow? Was the new thought believable? Is this an unchangeable fact that you should probably work on accepting and coping with?

- Remember that all of this work is useful; nothing is a waste of time as long as the patient is learning and growing. Patients sometimes learn the most when they have tried to do a thought record on their own, get stuck, and bring it back, and we work on it together and figure out what adaptations they can make for next time.

The Core Beliefs Worksheet

- Another exercise that can be used in CBT is called the core beliefs worksheet. The cognitive model addresses the automatic thoughts on the surface, but we have these core beliefs underneath. Often, they're developed early in life, and they might not be particularly rational, but they have a strong, emotional charge attached to them and are fairly resistant to change.

- To use a core beliefs worksheet, start with a blank sheet of paper. The patient writes the core belief at the top of the page. For example, it might be "I'm an unlovable person." The patient would then rate the percent strength that he or she currently has in that belief. The patient would create two columns on that piece of paper: evidence for and evidence against. He or she would look for all of the prompts that you might use on a DTR but would use them on the core beliefs worksheet. The patient might talk to significant

others. At the bottom of the core beliefs worksheet, the patient would write a new tentative belief at the bottom, along with his or her percent agreement.

- A one-page exercise that takes the patient 15 or 20 minutes certainly isn't going to change a core belief, but if we think of the core belief as a boulder that is weighing heavily on the patient, each time he or she does this exercise, he or she chips away a piece of that core belief. And with enough practice, over time, we hope that the patient can make shifts in how he or she feels about himself or herself.

When Things Go Wrong

- What do we do when things go wrong? We want individuals to practice their skills. We want them to make adaptations over time. It should be an evolving process, but sometimes the homework just doesn't work out. Sometimes it doesn't have the desired effect.

- The important part is to remember that nothing works all the time. You often don't get it right the first time. It's the partnership—the collaborative problem solving—in CBT that creates the flexibility and creativity to finally find something that works for a particular person, given his or her life circumstances.

Suggested Reading

Areán, Raue, Mackin, Kanellopoulos, McCulloch, and Alexopoulos, "Problem-Solving Therapy and Supportive Therapy in Older Adults with Major Depression and Executive Dysfunction."

Cuijpers, van Straten, and Warmerda, "Problem Solving Therapies for Depression."

Unützer, Powers, Katon, and Langston, "From Establishing an Evidence-Based Practice to Implementation in Real-World Settings."

Questions to Consider

1. If core beliefs are, by definition, deeply held from a very early age, then how can CBT hope to change them? Does CBT change core beliefs, or does it teach compensatory strategies to work with what you have?

2. Complete your own daily thought record. First, select a triggering event, and then see if you can fill out the columns for emotions, automatic thoughts, evidence for and against, the new thought, and the new emotion ratings (see DTR form). Did you get stuck? Where? Be sure to try the tips mentioned in the lecture to help you move forward.

Positive Psychology

Lecture 10

Although CBT was developed for the treatment of psychopathology and negative mood states, it has more recently been used as a way to encourage or induce positive emotion. In this lecture, you will be exposed to the other side of the emotional spectrum—positive emotions—starting with gratitude and what we know about it. In addition, you will learn that research in the field of positive psychology has offered theories regarding why positive emotion might matter from a survival standpoint, as well as some data on the adaptive power of positive emotion in coping with stress as a sort of replenishment.

Gratitude

- Recently, there has been a great deal of research on gratitude, or what has been called an "attitude of gratitude." Gratitude has been linked to better health, sounder sleep, less anxiety and depression, higher long-term satisfaction with life, and kinder behavior toward others, including romantic partners. Another study shows that feeling grateful makes people less likely to turn aggressive when provoked.

- A good example of some of the seminal work that was conducted on gratitude was done by Robert Emmons at the University of California, Davis. He started with a program that he called "gratitude lite." In this program, individuals were asked to complete a gratitude journal, in which they listed five things, once per week, and only were allowed one sentence per item. After two months, the results began to show that subjects were more optimistic, were happier, worked out more, and had fewer physical complaints.

- We're not just talking about gratitude when we talk about positive emotions. We're including happiness, joy, love, and excitement. We know that all emotions, including positive emotions, have a physiological impact as well as social consequences. But what are the functions of the positive emotional family?

- We know that anger helps us face or correct injustice and that anxiety helps us see and recognize threats that might be in our environment. But why do we need happiness, joy, or love? Do they really help us survive? And if so, how?

- This was the question that Barbara Fredrickson asked as she developed her broaden-and-build model: What is the evolutionary purpose of positive emotions? She reminds us that when we are in a negative emotional state, it gives us a sort of cognitive tunnel vision. It narrows our cognitive repertoire. We're focused on a particular problem. When we're in a positive mood state, that repertoire is broadened. We're able to think more broadly and more creatively.

- We also know that when we are in a negative mood state, we circle our social wagons. We are more closed to outside social contacts or to building new relationships. The opposite is true for positive emotions. When we're in a positive emotional state, we're more likely to reach out to others, meet new people, or deepen existing relationships.

When we're in a positive emotional state, we're more likely to reach out to others, meet new people, or deepen existing relationships.

- So, Fredrickson believed that positive emotions are there to broaden our cognitive repertoire and to build important social relationships that will sustain us in the negative times of the future.

- In 2008, Fredrickson published an interesting study in the *Journal of Personality and Social Psychology* on loving-kindness meditation. She studied 139 adults, half of whom meditated and half of whom were in a control condition. She found that meditation increased the daily experience of positive emotions and produced increases in a wide range of personal resources—including mindfulness, purpose in life, and social support—and decreased illness symptoms. These increased resources predicted increased life satisfaction and reduced depressive symptoms.

- A similar study was conducted by Judith Moskowitz. Published in 2012, the study analyzed whether or not the idea of positive emotion sustaining us through difficult times would be true in different groups of subjects.

- The first group of subjects was college students. The second group was caregivers of ill children (obviously experiencing a lot of chronic stress), and the third group was individuals recently diagnosed with HIV.

- Moskowitz found that positive emotion was correlated with better self-regulation performance, independent of the effects of negative emotion. The effects were not as strong longitudinally. However, she found that her studies of all three populations did provide modest support for the broaden-and-build model.

Positive Psychology

- Positive psychology became popular in the early 21st century, through the guidance of Martin Seligman, who is most known for his work with depression and negative mood states, especially learned helplessness and pessimism. He decided that he wanted to look at life with regard to things like happiness, gratitude, creativity, enthusiasm, wisdom, and insight.

- Much of the early work in the field of positive psychology was sort of an epidemiology of positive psychology, and it specifically involved looking at happiness. Many surveys found that approximately only one-third of Americans would describe themselves as happy. In addition, we learned that happiness is not necessarily predicted by income, age, or gender; instead, it is correlated with extroversion and spirituality, and relationships and friendships are key. Interestingly, there seems to be a bimodal distribution in happiness, in which we are happiest in our 20s and in our 60s, on average.

- An interesting study—a survey done by Columbia University—looked at what might be the happiest spots on Earth and, specifically, what might be the happiest countries on Earth. Then, the researchers wanted to deduce whether there was something about those cultures that supported those happy mood states.

- Researchers discovered that the top three happiest countries were clustered closely with one another: Denmark, Finland, and Norway, with Denmark being the happiest, Finland the second happiest, and Norway the third happiest.

- They found that even though Qatar is the richest country in the world, it is number 31 in happiness. The United States is the sixth wealthiest but is number 11 on the list. Japan has the longest life expectancy, but it is number 44 on the happiness list. Hong Kong has the lowest murder rate of anywhere in the world, but it is number 67 in happiness.

- Clearly, happiness is not just about safety, life expectancy, or income—it's something much richer and more meaningful than that. Ultimately, the promise of positive psychology isn't necessarily to make us happy, but it might have quite a bit to offer in terms of coping and even in terms of improving our physical health.

- The classic study that opened up the relationship between longevity and positive mood states was the Nun Study, which was published in the early 21st century. In this study, nuns kept a diary in their 20s, and their diaries were analyzed for positive emotional words. The nuns who were most positive were most likely to live into their 80s and 90s, compared with their more negative, or pessimistic, counterparts.

- The question remains, though: Is there a way that we could generate positive emotions if we believe it has positive physiological effects over the long term and might even have effects on our longevity?

- Judith Moskowitz conducted a series of studies in which she created a toolbox of different strategies to promote positive emotions. Some of those strategies included things like intentionally helping a person notice or selectively attend to positive events, something that she called capitalizing or savoring. Often when something negative happens, we ruminate about it over and over again. Could we also cause a sort of rumination about positive events, called savoring?

- Moskowitz also addresses gratitude and mindfulness, positive reappraisals of situations, focusing on personal strengths, setting attainable goals and noticing when you've reached them, and acts of kindness toward others.

- An established study published by Moskowitz in 2011 looked at health-related stress. Moskowitz wanted to see if it was possible for her toolbox to increase positive emotions even in individuals who were very stressed. So, she analyzed people who were newly diagnosed with HIV. She found that the toolbox was effective in terms of increasing positive affect, or emotions, and decreasing negative affect in these individuals.

- In 2014, a pilot study was conducted by Glenna Dowling that analyzed caregivers. Dowling used a randomized controlled trial of 24 caregivers, and half of them had five one-on-one positive-affect interventions. These caregivers were caring for a loved one who had frontotemporal dementia.

- Researchers analyzed measures of emotions—such as caregiver mood, stress, distress, and caregiver burden—at the baseline, at the end of the five-week intervention, and then at a one-month-post follow-up. They found that positive affect increased, negative affect decreased, and stress improved all around at the end of the intervention and also one month after the intervention.

- It is not wise to be preoccupied with positive emotion and happiness. We have positive emotions and negative emotions for a reason. We need a balance between the two, and each of them might tell us something important about ourselves, about our world, or about our relationships.

Suggested Reading

Danner, Snowdon, and Friesen, "Positive Emotions in Early Life and Longevity."

Dowling, Merrilees, Mastick, Chang, Hubbard, and Moskowitz, "Life Enhancing Activities for Family Caregivers of People with Frontotemporal Dementia."

Emmons and McCullough, "Counting Blessings versus Burdens."

Fredrickson, Cohn, Coffey, Pek, and Finkel, "Open Hearts Build Lives."

Moskowitz, Shmueli-Blumberg, Acree, and Folkman, "Positive Affect in the Midst of Distress."

Moskowitz, Hult, Duncan, Cohn, Maurer, Bussolari, and Acree. "A Positive Affect Intervention for People Experiencing Health-Related Stress."

Seligman, *Authentic Happiness*.

———, *Flourish*.

Smyth, et al, "Effects of Writing about Stressful Experiences on Symptom Reduction in Patients with Asthma or Rheumatoid Arthritis."

Questions to Consider

1. For the next week, write down an answer to the following three questions before bedtime. Be sure to note any effect this has on your mood.

What surprised me today?

What moved me today?

What inspired me today?

2. Gratitude and a focus on the positive have been shown to have health and mood benefits. Is this just the classic "power of positive thinking"? How can we take material in this area as more than Pollyannaism?

Healing Traumatic Injuries

Lecture 11

The focus of this lecture is on trauma and CBT. In this lecture, the diagnosis of post-traumatic stress disorder (PTSD) will be defined, and you will learn how CBT can be used to treat stress-response syndromes like PTSD. Essentially, we want CBT to "unstick" the brain and begin the process of repairing damage. Traumatic events can arise from a number of different sources, including combat-related PTSD, random violence, car accidents, sexual abuse, or even intensely powerful losses. This lecture will highlight common features and solutions.

Trauma

- The Substance Abuse and Mental Health Services Administration (SAMHSA) tells us that individual trauma results from an event, a series of events, or a set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that it has lasting adverse events on the individual's functioning and physical, social, emotional, or spiritual well-being.

- Traumatic events overwhelm the usual methods of coping that give people a sense of control, connection, and meaning. This might include sexual assault, combat, car accidents, or even vicarious traumatic experiences.

- With the exception of sexual molestation or sexual assault, trauma is much more likely to happen to a man than to a woman. A man has a 35 percent chance in his lifetime to witness violence, while a woman has a 15 percent chance. Men have a 25 percent chance of being involved in an accident, while women have a 15 percent chance. This is mostly accounted for in motor vehicle accidents, which are more likely to be caused by men than by women. Men have a 20 percent chance of being threatened with a weapon, while women have a 6 percent chance.

- The opposite is true when it comes to rape or sexual assault: Men have a 3 percent chance, while women have a 20 percent chance of being raped or sexually assaulted.

- On the severity spectrum of responses to trauma, it ranges from the expected stress-response syndromes to adjustment disorder, to acute stress reaction, to the most severe and lasting reaction of post-traumatic stress disorder (PTSD).

PTSD

- The Diagnostic and Statistical Manual of Mental Disorders (DSM-5), published in 2013, gives criteria A, B, and C for PTSD. Criteria A: There has to be some sort of trauma that has happened. An individual has to be exposed to death, threatened death, serious injury or threat of serious injury, or actual or threatened sexual violence. You can be directly exposed, you can witness it in person, you can be indirectly affected by it (as in a vicarious trauma of hearing about a close friend or family member), or it could be repeated or extreme indirect exposure (something that a police officer or firefighter might experience).

- For criteria B, there has to be something called intrusive symptoms that are persistently reexperienced. It might be recurrent and intrusive memories, traumatic nightmares, or flashbacks or other dissociative reactions.

- As part of criteria C, there is a persistent or effortful avoidance of distressing trauma-related stimuli. There might be trauma-related thoughts or feelings or trauma-related external reminders, such as triggers in your environment that bring back a flood of emotions and reactions.

- Other criteria might include changes in cognition and emotion and changes in arousal and reactivity, and the duration has to be greater than one month. Like many different mental illnesses, there needs to be some level of functional impairment.

Diagnosing PTSD

- The gold standard for assessing an individual who suspects that he or she might have PTSD is a clinician interview. Clinicians do a semistructured interview using questions derived from the DSM-5 criteria A, B, and C. Other measures include the PTSD Symptom Scale–Self-Report (PSS-SR), the PTSD Checklist (PCL), or the classic Impact of Event Scale (IES) developed by Mardi Horowitz and later revised in the 1990s.

- It is estimated that there is a lifetime risk of PTSD of about 8 percent for adults in the United States. PTSD is more common in women than in men, but men are more likely to be exposed to trauma. Often, it's the type of trauma that lays the groundwork for PTSD. For example, women who have been exposed to sexual violence or rape have a much higher risk for developing PTSD than for some other kinds of trauma.

- Not everyone who is traumatized goes on to develop PTSD. The most powerful risk factor has to do with the severity of the trauma. Other factors might include whether the individual has had prior

Trauma can result from a number of different events, including combat, random violence, car accidents, and sexual abuse.

traumas or prior traumatization. Gender is also a factor; PTSD is more common in women than in men. If an individual has had prior mood disorders, depression, or anxiety disorders, or a family history of those disorders, then those factors make the risk for PTSD higher.

- Keep in mind that PTSD might not be the only issue. People might be coping with their disorder by self-medicating with things like alcohol or drugs. They might be reacting to the surge of feelings they have by becoming aggressive or violent. There might be suicidal ideation or maybe even suicidal attempts. They might distance themselves or break away from loved ones. There might be problems at work, problems in relationships, or even homelessness and joblessness.

CBT for PTSD

- CBT for PTSD has been around for quite some time. In fact, most of the founding fathers of CBT, such as Aaron T. Beck or Albert Ellis, all had versions of CBT for PTSD.

- With behavioral strategies, we want to push against avoidance, so CBT might help an individual face fearful situations. But clinicians need to give the individual skills to be able to deal with the effects of arousal. They want to teach them somatic quieting and cognitive restructuring. They want to teach them how to tell their story but not become overwhelmed with emotions.

- A number of different variants of CBT for PTSD have subsequently emerged, including stress inoculation training by Donald Meichenbaum, prolonged exposure and cognitive processing by Edna Foa, and, more recently, eye movement desensitization and reprocessing (EMDR).

- In Edna Foa's prolonged exposure and emotional reprocessing, patients are encouraged to repeatedly recount the event and confront feared situations in people. They are taught relaxation or other emotional-mastery skills so that they convey a sense of control and safety while they are exposing themselves to these potential triggers.

- This kind of therapy proceeds through a number of different stages. In the first stage, therapists do basic relationship building, establish safety, educate the patient about the disorder and about the treatment, conduct assessments, and look for comorbidities. This is CBT, and it still has the common features of collaboration, because the relationship matters, but you have a partnership with the patient in developing a treatment plan and setting some goals.

- In the second stage, therapists teach emotion-regulation skills, self-soothing, and somatic quieting, and they begin talking about the event. A sample early homework assignment that a patient might do is as follows.
    - Please write at least one page on what it means to you that you were traumatized. Please consider the effects the trauma has had on your beliefs about yourself, your beliefs about others, and your beliefs about the world. Also consider the following topics while writing your answer: safety, trust, power, esteem, and intimacy. Bring this with you to the next session.

- This assignment might sound a little abstract, and it is—on purpose. You need to have the individual do an exercise that is challenging but not overwhelming before you move on to the third stage.

- In the third stage, the individual starts reprocessing the memory while being exposed to the triggers, and many strong emotions are brought up. A sample midpoint, or more advanced, third-stage assignment for the patient is as follows.
    - Write a detailed account of the trauma. Include as many sensory details as possible, including your thoughts and feelings during the trauma. The patient reads his or her assignment in the next meeting, might redo this assignment in between meetings, and also will listen to tape recordings of his or her therapy session in between meetings to continue exposing himself or herself to this particular story and practicing emotional-mastery skills.

- Approximately 80 percent of PTSD patients show significant reduction in symptoms and improvement in functioning after 12 weeks of CBT treatment. In a paper published by the *Journal of the American Medical Association* in 2007, research showed that more than 40 percent of women with combat-related PTSD no longer met criteria for the disorder after only 10 sessions.

- A meta-analysis conducted by Bradley Watts and colleagues in 2013 that looked at 112 studies found that the effective treatments were CBT, exposure treatment, and EMDR. They found that effective medications and drugs included Paxil, Zoloft, Prozac, Risperidone, Topiramate, and Venlafaxine. This study showed that there is a menu of different treatments—both psychotherapies and pharmacotherapies—that work.

- In a study done by Jonathan Bisson and colleagues in 2007, published in the *British Journal of Psychiatry*, a systematic review of 38 studies found that trauma-focused CBT was helpful along with EMDR. In a similar study, more recently done by Bisson in 2013, researchers found that individual trauma-focused CBT and EMDR did better than typical treatment.

- In 2013, Anette Kersting and colleagues studied a group of women who had miscarriages, which can be very traumatic for families, particularly when people won't talk about it or if the mother blames herself. In this randomized controlled trial, they looked at Internet-based CBT versus waitlist controls for 228 women during a five-week CBT intervention, and their primary outcome measure was the IES.

- The treatment group for the Internet-based CBT showed significantly reduced symptoms of post-traumatic stress, prolonged grief, depression, and anxiety relative to the waitlist control. They found that further significant improvement in all symptoms of PTSD and prolonged grief was found from the post-treatment evaluation to the 12-month follow-up. The attrition rate was relatively low, at 14 percent.

- There has been a recent move to more types of trauma-focused CBT online, and there are many programs that are not just for miscarriages. For example, there is a program on the Medical University of South Carolina's website that analyzes trauma-focused CBT online for children and adolescents.

Suggested Reading

Bisson, Ehlers, Matthews, Pilling, Richards, and Turner. "Psychological Treatments for Chronic Post-Traumatic Stress Disorder."

Bisson, Roberts, Andrew, Cooper, and Lewis. "Psychological Therapies for Chronic Post-Traumatic Stress Disorder (PTSD) in Adults."

Kersting, et al, "Brief Internet-Based Intervention Reduces Posttraumatic Stress and Prolonged Grief in Parents after the Loss of a Child during Pregnancy."

Layden, Newman, Freeman, and Morse, *Cognitive Therapy of Borderline Personality Disorder*.

Rothbaum, Foa, and Hembree, *Reclaiming Your Life from a Traumatic Experience*.

Rye, Pargament, Pan, Yingling, Shogren, and Ito, "Can Group Interventions Facilitate Forgiveness of an Ex-Spouse?"

Schnurr, Friedman, Engel, Foa, Shea, Chow, Resick, Thurston, Orsillo, Haug, Turner, and Bernardy, "Cognitive Behavioral Therapy for Posttraumatic Stress Disorder in Women."

Shapiro, *Eye Movement Desensitization and Reprocessing (EMDR)*.

Watts, Schnurr, Mayo, Young-Xu, Weeks, and Friedman, "Meta-Analysis of the Efficacy of Treatments for Posttraumatic Stress Disorder."

Questions to Consider

1. Trauma at any age can be devastating and can have lasting effects. However, it seems that childhood trauma/abuse often predisposes a person to serious struggles with mental illness and substance abuse. Is it possible to intervene with these children to prevent the harmful aftereffects? Is it possible to intervene with adults who were abused as children to help alleviate negative effects that have already emerged?

2. What does it mean to be cured after a trauma? How might a trauma positively alter someone's life at a later time? Should we expect that? Can we facilitate it?

Forgiveness and Letting Go

Lecture 12

Forgiveness, and its associated health benefits, begins with a cognitive decision and can be promoted with both cognitive and behavioral strategies. This lecture summarizes the research on forgiveness and illustrates exercises that help individuals let go and move forward toward forgiveness goals, including the forgiveness of another person or of oneself. Research has shown that short-term CBT—usually in groups, but it can be in individual settings as well—can be effective in promoting forgiveness and that behavioral activation can be helpful in treating pathological grief.

Research on Forgiveness

- For the most part, when we think of forgiveness, we think about forgiving another person, and it usually starts with a transgression. The emotional reaction might include the initial shock, the guilt, the anger, the thoughts of betrayal, the disbelief, the chagrin, the judgment, and the what-ifs. The behavior might include avoidance, rumination, different social interactions, and the physiological effects. It might affect our sleep or appetite. We might become depressed or angry. It might even affect our level of cardiovascular arousal and blood pressure.

- In research published in 2000, Robert Enright and Richard Fitzgibbons tell us that people, upon rationally determining that they had been unfairly treated, forgive when they willfully abandon resentment and related responses to which they have a right and endeavor to respond to the wrong doer based on the moral principles of beneficence, which may include compassion, unconditional worth, generosity, and moral love.

- They tell us that forgiveness is not forgetting. Forgiveness is not surrender, resignation, or passivity. Forgiveness is not necessarily reconciliation, and it's not excusing or condoning. It's not letting time heal or somehow balancing the scales. Forgiveness is an active,

ongoing process that may take years to evolve. But it typically starts with a decision—a desire to forgive or at least to begin that process. The primary beneficiary of forgiveness is the person who is doing the forgiving.

- In the Stanford Forgiveness Project, published in 2006, Alex Harris and colleagues recruited individuals who had recently been wronged or transgressed. They took a wide range of different individuals with different types of transgressions experienced. They designed six 90-minute groups, and half of the subjects got the intervention and half were controls out of a total sample of 259 individuals.

- In the forgiveness classes, they started with somatic quieting or stress reduction and relaxation. Then, they moved on to some anger-management exercises. The individuals learned to depersonalize, or take less offense. They also taught the individuals to be aware of the personal health consequences of holding a grudge and to choose to redirect their attention elsewhere. They helped them build empathy skills—to see the situation from different perspectives—and develop something they called grace, or accepting that other individuals make mistakes and do things that may hurt others. Then, they encouraged the individuals to take small steps and do easy forgiveness first before tackling a big transgression.

- The intervention reduced negative thoughts and feelings about the target transgression two to three times more effectively than the control condition, and it produced significantly greater increases in positive thoughts and feelings toward the transgressor. Significant treatment effects were also found for forgiveness self-efficacy, forgiveness generalized in new situations, perceived stress, and trait anger.

- In an interesting adaptation to this study published by Mathias Allemand, et al, in 2013, researchers did a randomized controlled trial in which they looked at an intervention group versus the waitlist control group. However, in this study, they were focused on older adults, whose average age was 70 years old. They essentially used

the Stanford Forgiveness Project curriculum, but they adapted it for issues that might be more salient for older adults. They found that the intervention reduced the levels of perceived actual transgression painfulness, transgression-related emotions and cognitions, and negative affect.

- In 2005, Mark Rye and colleagues conducted a randomized controlled trial that analyzed 192 individuals. They had an eight-session forgiveness group, but they had three different conditions: a secular forgiveness group, a religious forgiveness group, and a waitlist control. They looked at forgiveness outcomes and mental health right after the class ended and six weeks after. They found that participants increased significantly more than comparisons on self-reported forgiveness of an ex-spouse and understanding of forgiveness. Participants in the secular condition, though, showed a greater decrease in depressive symptoms than comparison participants. Intrinsic religiousness didn't seem to help, but it didn't seem to hurt.

- Developed by Loren Toussaint in 2014, the Restore curriculum was framed as a self-forgiveness curriculum. It was a randomized controlled trial of 83 cancer patients and their caregivers who were analyzed versus waitlist controls. Researchers found that the project Restore encouraged self-acceptance, self-improvement, and commitment using prayer, meditation, reflection, and expressive writing. After looking at before and after outcomes, they found that patients and their caregivers scored higher than controls on self-forgiveness, self-acceptance, and self-improvement, and they scored lower on pessimism.

Predictors of Forgiveness

- Ryan Fehr and colleagues conducted a meta-analysis of 175 different studies that analyzed more than 26,000 subjects. They found some key features that were predictors of forgiveness: the intent to forgive, the receiving of an apology, the capacity for empathy, and the capacity to manage or control their own angry reaction.

- A study by Tila Pronk also analyzed predictors of forgiveness, but this study looked more at executive functioning, or cognitive functioning or skills. In particular, three were important for promoting forgiveness: inhibition (involves reducing ruminations about the transgression), task switching (if memories of an event are triggered), and flexibility (the ability to rewrite or revise their story).

- The process of forgiveness starts with the decision to forgive. We need to stop ourselves from going down a rabbit hole of rumination that amplifies our negative emotions and makes it difficult to let go. We need to think about task switching, engaging in distractions, and inducing positive emotions. We might want to rewrite the story or build empathy through new attributes or explanations about why an event occurred. Most importantly, we need to remember that forgiveness is for you—not someone else.

Pathological Grief

- Sometimes there isn't a person, or anything exterior to us, to blame. Something tragic happens—such as a loss or a death—and you're just not able to move on. Maybe you're stuck because of self-forgiveness, because you feel like moving on is a betrayal of the person you've lost, or because of unresolved grief.

- There's no one right way to grieve, nor is there a right intensity or duration for grief, but pathological grief is when an individual seems to have a number of mental health difficulties after bereavement and doesn't seem to be recovering by connecting with their usual activities or social contacts.

- There are treatments that have been validated for pathological grief. In a study conducted by Anthony Papa, Rodd Sewell, and colleagues in 2013, they analyzed pathological grief. They used a randomized controlled trial of immediate treatment versus a waitlist control, and they looked at these individuals at 12, 24, and 36 weeks after their treatment. This particular treatment was called behavioral activation, and it focuses on activating certain behaviors. Compared

to no treatment, behavioral activation was associated with large reductions in prolonged, complicated, or traumatic grief; PTSD; and depressive symptoms.

- Behavior activation is a highly tailored approach to the ongoing assessment and formulations about why a person does or does not engage in particular behaviors. Much of it is based on the seminal work of Peter Lewinsohn at Oregon Health & Science University.

- Behavioral activation looks at contingent if-then beliefs: What are the drivers, or the inhibitors, of behaviors? The goal is to increase rewards and problem resolution and to decrease avoidance and rumination. Behavior slowly evolves, or in some cases devolves, over time. According to seminal work by Neil Jacobson in the mid-1990s, evidence shows that behavioral activation might be equal to the hybrid model of CBT for depression.

- With behavioral activation, there is an orientation to treatment and education, just like in hybrid CBT. We want to develop our treatment goals. We want to individualize the activation plans and engagement targets by doing functional analysis, or a formulation of situations and behaviors. We want to have individuals try to increase their activation. Individuals are going to encounter obstacles, but they will do some troubleshooting about why they had trouble increasing their behaviors or connecting with new people or activities. We also want to review and consolidate gains.

- With behavioral activation, we not only want to increase activities, but we also want to look for examples of maladaptive behaviors that an individual has learned as a way of coping. Many times, people will use maladaptive behaviors because these types of behaviors have an immediate reward, and it's not entirely obvious that they might have a negative consequence later.

- An example of a maladaptive coping behavior would be taking long naps in the middle of the day. When you're feeling depressed, there is a natural tendency to want to escape. A long nap can be

reinforcing. It helps you escape, but it prevents you from going out to do things that might be more reinforcing or from connecting with your social supports.

- Another example of a maladaptive behavior would be drinking alcohol when you're stressed. It is a depressant, and it turns down the stress response, but it doesn't help you solve any of the issues that might be causing you to have that stress response.

Drinking alcohol while stressed is a maladaptive behavior. Alcohol turns down the stress response without solving the issues that caused the stress response.

- With behavioral activation, we increase positive behaviors and decrease negative, or maladaptive, behaviors. An acronym is used to remind us about the steps that an individual would need to take: ACTION, where A stands for assess, C stands for choose a new behavior, T stands for try the chosen behavior, I stands for integrate it into your new routine, O stands for observe the results, and N stands for never give up.

Suggested Reading

Allemand, Steiner, and Hill, "Effects of a Forgiveness Intervention for Older Adults."

Enright, *Forgiveness Is a Choice*.

Goldman and Wade, "Comparison of Forgiveness and Anger-Reduction Group Treatments."

Harris, Luskin, Norman, Standard, Bruning, Evans, and Thoresen, "Effects of a Group Forgiveness Intervention on Forgiveness, Perceived Stress, and Trait-Anger."

Jacobson and Hollon, "Cognitive-Behavior Therapy versus Pharmacotherapy."

Koenig, King, and Carson, *Handbook of Religion and Health*.

Luskin, *Forgive for Good*.

Papa, Sewell, Garrison-Diehn, and Rummel, "A Randomized Open Trial Assessing the Feasibility of Behavioral Activation for Pathological Grief Responding."

Pronk, Karremans, Overbeek, Vermulst, and Wigboldus, "What It Takes to Forgive."

Toussaint, Barry, Bornfriend, and Markman, "Restore."

Questions to Consider

1. How do the different major world religions conceptualize forgiveness? Consider Christian, Muslim, Buddhist, and Jewish traditions. How do these different traditions shed light on this complex and important psychological process? Does forgiveness need to have a religious or spiritual element in order to work?

2. Would Stanford's forgiveness program work if the person you are trying to forgive is yourself? How does the process of forgiving someone else differ from self-forgiveness?

Digging Deep and Finding Meaning

Lecture 13

This lecture moves past finding explanations for why events have happened and begins to consider what those events mean in our broader perspective and how our reactions can be intentionally shaped depending on our personal values. Shifts in mood states are beneficial to a healthy relationship. Sometimes larger changes to perspectives or attitudes are necessary to meaningfully change our quality of life. In this lecture, you will learn how CBT can provide tools to support those shifts in perspective and meaning.

Finding and Maintaining Perspective

- We've all been knocked to our knees, and we've all had trouble standing back up. We need to find perspective, we need to be present, and we need to connect to meaning. Meaning is constructed—it is actively built—and we can be its architect.

- How can we adopt or maintain a constructive and balanced perspective? The very nature of loss or trauma is that we develop tunnel vision. We become focused on the event. We want to understand it for a variety of reasons—to prevent it, to solve it, to absolve ourselves from blame—but finding perspective means broadening our vision.

- Finding perspective means considering our life course, our families, and our communities and recalling events both tragic and triumphant that we have survived or even grown from. It's not about discounting; it's about adopting a bigger picture and remembering that sometimes today's low point sets us up for tomorrow's high.

- At first, this might seem like the ultimate exercise in cold rationality or maybe even sophistry. The timing is critical, because we all need time to experience our loss and grieve, but then we need to find

perspective and construct meaning. Eventually, the calculus has to be done: What does this mean? How bad is it? Can I survive this? The event has to be put into perspective.

- To put an event into perspective, we need to place it on a personal timeline. Is it the worst or best event we've ever experienced? Where does it occur in our life course? Is the outcome of the event likely to remain the same? Is our perspective likely to stay the same? What are other things that are going on that might balance what happened, or things that might happen in the near future? Have there been times in the past when all seemed hopeless but things changed? Have there been times when you thought you wouldn't make it but you did? Place the event in the greater context of family and community.

Belief systems help us find answers and provide us with instructions on how we should live our lives.

Systems of Belief and Meaning

- In part, we evolve systems of belief to help us find the answer to "why" questions and to provide instructions on how we should live our lives. Essentially, we tap into our own system of belief. We all have different systems of belief, and there is no single right system. You might believe in karma or in God's plan; you might believe in the physical or scientific laws of nature. Often, these systems of belief, although they've been with us our whole lives, are activated following a tragedy or with a medical illness.

- Meaning is something that we construct. We get to choose how and where we find our meaning. Take a moment and just think about what matters to you the most. Is there a larger picture? Is there

a grand scheme? There may or may not be, but we can all agree that we have values and priorities that bring us satisfaction, and sometimes we lose sight of these.

- To address this issue, try the acceptance and commitment therapy (ACT) values clarification, or meaning, exercise. The following are the core categories that are used in this exercise: intimate relationships, parenting, family, friendships/social, education/personal growth, career, recreation, spirituality/religion, physical health, and helping others.

- For each of the core categories, you rate how important it is on a scale of one to five (five being the most intense and one being the least intense) for you personally, and then you rate how you currently spend your time and resources. Do your values match where you're spending your resources?

- Karen Wyatt, a family physician and spiritual writer, tells us that there are five key components that we need to consider as we're thinking about meaning—particularly meaning in our lives following a trauma or negative event.
    - Perspective: Life is limited and precious. We have to acknowledge the fact that we're mortal and that life will end.

    - Prioritization: There is no room for squandering our precious moments of life. But identifying what does matter requires some thought, because our values change as life progresses.

    - Preparation: There is no substitute for planning ahead for some of the changes that will come, especially changes that come later in life.

    - Practice: Finding meaning in life requires effort, and that effort is best devoted to some sort of daily practice, such as mediation. By choosing to carry out a specific activity at a regular time every day, you can create mental discipline and focus, which are necessary skills in the search for meaning.

- Presence: Living in the present moment has become a common catchphrase, but it's important to be able to appreciate where you are and what's around you in the moment in order to hold on to the meaning of life in the present.

- Loving-kindness meditation, or compassion mediation, is a form of meditation that isn't just about mindfulness or presence, although it includes those elements. It's also about reminding us of our shared connection with others. For many people, it helps to reconnect them with an important source of meaning.

- Most simply, loving-kindness meditation gives people some somatic quieting and, hopefully, a compassionate way of thinking about others. But this practice also employs presence, focus, and, in some respects, mindfulness, all of which we believe are related to perspective and meaning making.

Belonging and Meaning

- An interesting study done by Nathaniel Lambert and colleagues in 2013 tested the idea of whether or not a sense of belonging was linked to an individual's having meaning in life. This study, which was actually four linked studies, analyzed 644 individuals.

- The first study was a simple survey study in which researchers wanted to see if there was a correlation between feeling like you belong and having a sense of meaning—meaningfulness. They found that there was a very strong, positive correlation. The more you felt like you belonged, the more meaning you felt you had found in life.

- In the second study, researchers wanted to look at this relationship between belongingness and meaning longitudinally. So, at the first time point, they looked at an individual sense of belonging and wanted to see if it predicted meaning at some point down the road—specifically, about three weeks down the road. Again, they found that there was a relationship.

- In the third and fourth studies, researchers wanted to manipulate an individual sense of belongingness. They primed participants with feelings of belongingness. They read stories, talked about social supports, and talked about social values. They essentially increased the participants' sense of feeling like they were connected and like they belonged to other individuals. They found, as anticipated, that by increasing the sense of belonging, they were able to subsequently increase a sense of meaning.

CBT and Meaning

- Belongingness and meaning might be different, but they do seem to be closely related to one another. But what if someone feels like they don't belong? What if they're isolated or alone? This is the situation in which you would break out your core CBT skills and begin working on both cognitive and behavioral levels for the individual.

- Consider some of the core CBT skills. Core cognitive skills might include journaling (starting to write stories), self-monitoring, and cognitive restructuring. We would want the individual to recall habits of mind, and we would want him or her to do exercises like the ABCD exercise or the dysfunctional thought record.

- There are also core behavioral skills. What activities help you feel a sense of connection? We want to do the behavioral analysis of why an individual is or isn't doing particular activities. We might want to do some behavioral activation to increase the prevalence of when and how the individual does those activities. We want to do activity scheduling. We might want to do behavioral experiments in order to test out particularly strong negative cognitions that cause the individual to feel disconnected from others. Of course, we will want to increase social contacts, hopefully along with intimacy. We might even want to add somatic quieting, prayer, or mediation.

Suggested Reading

Bath, Bohin, Jone, and Scarle, *Cardiac Rehabilitation*.

Frankl, *Man's Search for Meaning*.

Fredrickson, Grewen, Coffey, Algoe, Firestine, Arevalo, Ma, and Cole, "A Functional Genomic Perspective on Human Well-Being."

Hayes, *Get Out of Your Mind and Into Your Life*.

Lambert, Stillman, Hicks, Kamble, Baumeister, and Fincham, "To Belong Is to Matter."

Seligman, *Flourish*.

Questions to Consider

1. How has your personal sense of meaning evolved over time? Were those changes dramatic or minor? What caused the source of your meaning to change?

2. Try the ACT values clarification exercise. How do you rate in each category? Are you living your life in accordance with your values?

Cognitive Behavioral Therapy and Medicine

Lecture 14

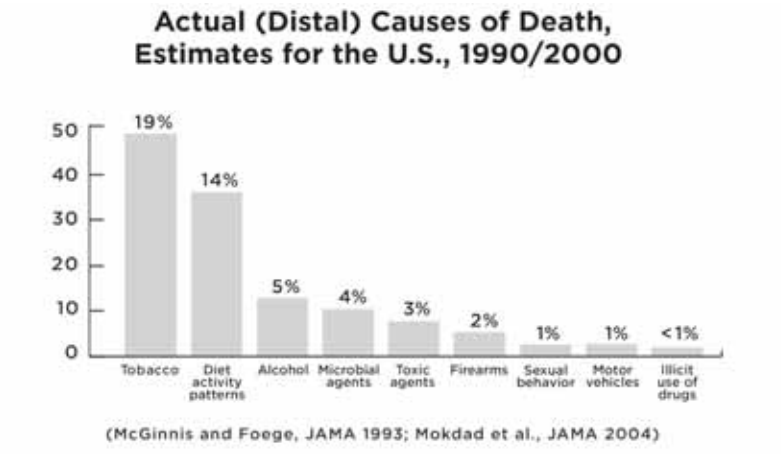
Recently, there has been a growing acceptance of behavioral medicine—and specifically of cognitive behavioral techniques—in medical settings. This lecture will apply CBT skills to the management of chronic disease. Although initially developed for the treatment of psychopathology, CBT principles and tools have been used to understand chronic disease onset and to promote chronic disease self-management. As you will learn, for chronic illnesses, there is a strong and unavoidable role of behavior, as well as much room for improvement. CBT is a logical starting point to help improve the quality of care in medical settings.

Behavioral and Social Determinants of Health

- The biopsychosocial model includes biological, psychological, and social factors. If we want to understand the causes, as well as the contributing factors, of biological diseases, we need to look at the psychological and the social factors. CBT looks at the mind—cognition and emotion—as well as behaviors that might be directly or indirectly related to health and how much they matter.

- The skills required to practice medicine have changed dramatically over the past hundred years. The primary causes of death per individuals in 1900 were acute infectious illnesses like influenza or pneumonia. The skills of the physician were to treat those particular diseases or maybe even to try to prevent transmission of those diseases.

- In the current day, as opposed to acute infectious diseases, people are dying from chronic diseases that start slowly and build slowly—diseases like heart disease, cancer, stroke, or chronic obstructive pulmonary disease. All of these diseases have a very strong behavioral component. In order to practice medicine in the current day, it's not so much about infection prevention as it is about changing and understanding behavior.



- In 2002, Michael McGinnis, Pamela Williams-Russo, and James Knickman published a paper in *Health Affairs* in which they broke down the determinants of health by percentages. They say that, on average, our genetic predisposition accounts for about 30 percent of our health. Our behavioral patterns (diet, exercise, smoking, alcohol, drug use) account for approximately 40 percent of our health. Environmental exposure to toxins accounts for about 5 percent of our health. Social circumstances (communities, education, income) account for about 15 percent of our health. Health care accounts only for about 10 percent of our health.

- In other words, the behavioral and social determinants of health account for slightly more than 50 percent of what is causing a person to get sick or stay well. Whether you're a patient or a medical provider, it would behoove you to think about the biopsychosocial model—and especially those social and behavioral determinants.

- By far, the number one cause of preventable morbidity and mortality is tobacco use (primarily smoking tobacco). About 19 percent of premature morbidity and mortality is attributable to using tobacco. A close number two comes in with obesity, the behaviors of which are diet, nutrition, and caloric intake as well as physical activity

and exercise. In decreasing order, the rest of the list of top causes of preventable death is as follows: alcohol, exposure to microbial agents, toxic agents, firearms, sexual behaviors, motor vehicles, and illicit drug use.

- If 50 to 55 percent of premature morbidity and mortality is attributable to social and behavioral determinants, there is a tremendous opportunity for improvement. The challenge, though, is when life or circumstances get in the way. We all know that we're supposed to eat healthy and exercise, but do we have the resources? Do we have the opportunity? What are the competing demands? What is our level of motivation? Can we use cognitive behavioral tools to reengineer the situation?

The Chronic Care Model

- To help us understand why we do the things we do, even when we know they're unhealthy and even when we know we are at risk of having a chronic disease—we can use cognitive behavioral theory as an explanation and cognitive behavioral tools as an intervention.

- Some of the common conditions for which CBT has been applied include health anxiety, chronic pain, common symptoms like fatigue or insomnia, fibromyalgia, chronic fatigue, irritable bowel syndrome, and palliative care. With most common chronic diseases, there's always going to be an emotional and/or a behavioral and a social component.

- In 2005, about 133 million Americans suffered from at least one chronic disease, and by 2020, it is estimated that the number of people living with a chronic disease is expected to reach 157 million. About 50 percent of those people will have multiple chronic conditions, and each year, 7 out of every 10 deaths are the result of a chronic condition.

- The classic model is that prevention receives almost no attention in the medical community, so we eventually develop symptoms, see a doctor, and get a diagnosis of cardiovascular disease, or

chronic obstructive pulmonary disease, or maybe even diabetes. We get a prescription, usually some form of medication, and maybe we get some education, and then we go on our way until our symptoms progress, and then we again see our doctor, who adds more pharmacotherapy.

- We know that this does work to some extent in managing symptoms, but the movement now is toward something called patient-centered care and patient empowerment. With this focus, it is not just about managing symptoms but about preventing them before they occur.

- An interesting new model proposed by Edward Wagner, called the chronic care model, is a shift in health policy and health-care system design in order to facilitate the prevention and management of chronic diseases.

- The classic model is that you have an individual primary care provider, and he or she is your primary—or maybe even your only—point of contact. If you need specialists, then you spend much of your time trying to arrange appointments and entering into all sorts of different health-care systems.

- In the chronic care model, there is a collaborative, organized health-care system of interprofessional providers, which includes physicians, nurses, psychologists, physical therapists, and occupational therapists. But there are also connections with an individual patient's community—connections with the patient and the patient's family.

- Part of the chronic care model is something called self-management and self-management support. The idea is that even if you see your primary care provider fairly often—for example, once or twice a month—that's still only 30 or 40 minutes, maybe an hour, in a particular month. You have all of those other hours in a month on your own, or with your family or community. So, we want to teach you how to self-manage your chronic disease when you're on your own.

- There have been many different innovations and trials to determine whether the chronic care model can improve the quality of care. Research has found that, over time, organizations have been able to improve their care coordination. We are broadening our team, but hopefully we're improving the collaboration within that team and improving power and empowerment for patients.

- Research on the chronic care model has shown that patients with diabetes had significant decreases to their risk of cardiovascular disease when the chronic care model was used. In addition, congestive heart failure patients were more knowledgeable, were more often to recommend therapy, and had 35 percent fewer hospital days. Furthermore, asthma and diabetes patients were more likely to receive the appropriate therapies.

Self-Management and CBT

- Self-management is defined as the individual's ability to manage the symptoms, treatment, physical and social consequences, and lifestyle change inherent in living with a chronic condition. Some of the essential skills for patients and patients' families include goal setting and action planning, self-monitoring of physical or medical symptoms, managing cognitions and emotions, managing the environment, and building and utilizing social supports.

- When it comes to self-management, there are three key areas that we want to help patients with: managing the symptoms of the illness or side effects of treatment, managing the stress and emotional impact caused by the illness, and managing and adapting to the functional impairments (social and occupational).

- In terms of managing the illness, we might be talking about managing common symptoms, such as difficulty sleeping, pain, fatigue, and nausea or changes in appetite. We might be dealing with side effects of treatment or medication that the patient needs to take. Common side effects include sedation, dry mouth, feeling

that you're in a cognitive fog, or gastrointestinal distress. There are behavioral as well as cognitive strategies that might help an individual manage those symptoms.

- When it comes to managing the emotional impact, many of the same principles and practices that are used for stress management might apply. We want to see if the emotional impact includes depression, sadness, or grief. It doesn't have to be clinical depression—it could be subsyndromal, but the same behavioral and cognitive strategies might help lift an individual's mood when he or she feels the burden of illness. We also might want to look at anxiety. Is an individual worried or fearful? Is he or she avoiding things? Has the individual become hypervigilant of different symptoms that he or she might be experiencing? Are there other somatic manifestations? Here we'll want to use cognitive strategies as well as somatic quieting strategies.

- In terms of managing the functional impact, we might be talking about physical function. Has the individual's disease caused him or her to lose mobility, strength, or endurance? If so, there are behavioral strategies to begin rebuilding endurance. Has the disease affected the individual's social and occupational functioning? Has it affected his or her ability to maintain personal relationships or to perform normal job duties? Are there excessive or burdensome resource demands that are related to the individual's care, such as medical appointments, physical therapies, or medication adherence? All of these can be addressed through self-management and cognitive behavioral tools.

- In general, CBT can help with a number of mind-body factors related to disease, including anger or hostility, depression, acute or chronic stress, and loneliness or isolation. It can also help with behavioral factors, such as diet, exercise, smoking, or medication adherence.

- We potentially want to self-monitor blood pressure, blood sugar, sleep, pain, calories, fat intake, or medications. In terms of behavioral analysis, we want to use goal-setting skills. We want to build our motivation using cognitive restructuring, and maybe once we find obstacles preventing quality care, we want to use the problem-solving process of identifying the problem and testing out different solutions.

Suggested Reading

Andrasik, "What Does the Evidence Show?"

Barlow, Wright, Sheasby, Turner, and Hainsworth. "Self-Management Approaches for People with Chronic Conditions."

Feldman, Christensen, and Satterfield, *Behavioral Medicine*.

Kenny, et al, "Survey of Physician Practice Behaviors Related to Diabetes Mellitus in the U.S."

Levin, White, and Kissane, "A Review of Cognitive Therapy in Acute Medical Settings."

McGinnis and Foege, "Actual Causes of Death in the United States."

McGinnis, Williams-Russo, and Knickman, "The Case for More Active Policy Attention to Health Promotion."

Mokdad, Marks, Stroup, and Gerberding, "Actual Causes of Death in the United States, 2000."

Partnership for Solutions, "Chronic Conditions."

Perrin, Homer, Berwick, Woolf, Freeman, and Wennberg, "Variations in Rates of Hospitalization of Children in Three Urban Communities."

Satterfield, *A Cognitive-Behavioral Approach to the Beginning of the End of Life*.

———, *Minding the Body*.

Wagner, "Chronic Disease Management."

Wagner, Austin, Davis, Hindmarsh, Schaefer, and Bonomi, "Improving Chronic Illness Care."

Questions to Consider

1. What chronic illness do you have or are you most likely to contract? What self-management interventions are required (for example, stress management, medical adherence, physical activity, self-monitoring, etc.)? Is your primary care provider a believer in collaborative care? How can you get him or her to treat you as a whole person and not just as a disease?

2. If 50 percent of premature death and disease is due to behavioral and social causes, then why do we spend so few of our health-care dollars on behavior? What are the forces that keep us from doing this? What might change this situation and draw more attention to behavior?

Staying on the Wagon

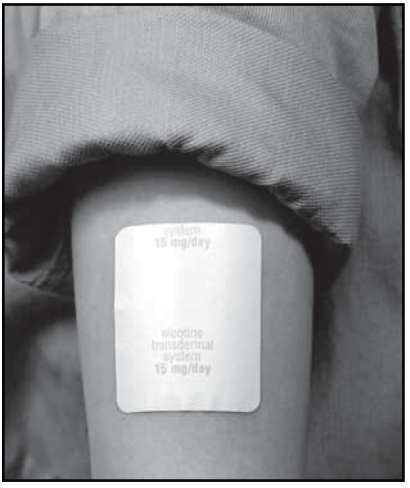
Lecture 15

This lecture will explore the notion of long-term behavior changes, or changes that stick. First, you will learn about some of the statistics on change rates, and then you will learn about some of the leading models of change. From those models, you will discover some core concepts that are related to change—such as self-control, self-discipline, motivation, and willpower—and how they can be affected by some of the CBT skills you have been learning.

Changing Negative Behaviors

- Anyone who has tried to lose weight through diet, exercise, or other means is probably familiar with the frustrating yo-yo pattern: weight goes up, and weight goes down. In fact, evidence shows that nothing works really well for weight loss. The average weight loss is about seven to 10 pounds, and most people over a three- to five-year period gain all the weight back.

- On average, it takes about four to five attempts for an individual to quit smoking. If the individual tries to quit cold turkey, he or she only has about a seven percent chance of being successful. If the individual uses nicotine replacement therapy, such as nicotine patches or nicotine gums, he or she has about a 30 percent chance of being successful.



When compared with quitting smoking cold turkey, the use of nicotine replacement therapy increases smoking cessation success.

- Having a brief intervention from a medical provider can reduce your risky alcoholic drinking by about 50 to 60 percent. Treatments for alcohol dependence include detoxification or a 12-step program. Unfortunately, only 25 percent of the people who need treatment for alcoholism make it to treatment, and only about one-third of those that make it into treatment get better.

- Another example comes from medication adherence. In general, approximately 50 percent of medication doses are missed. It depends on many variables, such as the kind of medication, the cost, the availability, and whether or not your disease has obvious symptoms. Regardless of these variables, many patients forget to take, or just don't take, their medications.

- To figure out what's happening from a CBT perspective, the first thing we're going to do is gather data so that we can set a baseline of where an individual's beginning behaviors are so that we can start making a formulation, or coming up with an explanation of why the person does the things he or she does. Of course, we'll want to do a behavioral analysis. First, we want to select a behavior, and then we want to design a data-collection instrument.

- If we were going to self-monitor for someone with diabetes, for example, we might track his or her blood sugars, diet, and exercise. For someone who is overweight, we might track calories, fat, carbohydrates, weight, and physical activity. For someone who has chronic back pain, we might ask him or her to keep a pain diary, in which he or she records the intensity, frequency, or triggers of back pain and what makes it better or worse.

- When you're looking at your baseline data, you need to set your target. You need to decide where you should be and why. What is your goal? Should you set a proximal goal (what do I want to do next week or next month?) You also want to think about distal goals, which are the stars on the horizon. It's important to follow the rules of SMART goals: Goals should be specific, measurable, attainable, relevant, and timely.

- When you begin the behavioral analysis, it's important to think of recent examples of when you fell short of your goal. What happened? What were the circumstances? What were the cognitions? What were the emotions? What were the behaviors? What were the rewards? What were the punishers?

- You want to imagine back, you want to describe, you want to come up with some hypothesis, and you want to start your analysis. What happened? What were the obstacles? Were there any facilitators? What was the benefit from not acting? Was there any secondary gain? What are your most important goals and values, and can you change?

- Whether or not a person can change, and what causes a person to be a successful changer, was the subject of an interesting study done by the National Institutes of Health. They looked at the successful changers, a small subsample of individuals who were able to make dramatic changes, mostly in the realm of weight management, and keep the weight off for at least multiple years throughout the duration of the study. They wanted to determine the attributes, circumstances, or ingredients that those individuals have that others might be able to learn.

- The key ingredients were having realistic expectations, motivation and will, core skills (preferably, conditioned habits), and achievable action plans. The other ingredients these individuals had was support from significant others and from their environment.

The Transtheoretical Model

- If you're not motivated, how do you go about getting motivated? Motivation is simply defined as the activation of goal-oriented behavior. It can come from inside (intrinsic), or it can come from the outside (extrinsic).

- Some of the determinants of motivation include seeing high importance of the behavior, placing a high value on the behavior, having self-efficacy or self-confidence, and having a supportive social context or environment.

- To understand motivation, we first have to acknowledge that life is complicated, that change is difficult, and that ambivalence about change is the common condition. Ambivalence is the norm, so how do we go about resolving our ambivalence?

- The transtheoretical model, developed by James Prochaska and Carlo Diclemente, sees ambivalence not as an obstacle but as an opportunity. In the transtheoretical model, sometimes called the stages of change model, behavior change is a dynamic process that progresses through five stages.

- Stage progression is caused by utilization of 10 change processes, plus changes in self-efficacy and decisional balance—seeing the pros and cons of an activity, where hopefully the pros outweigh the cons.

- The current stage that you happen to be in should predict your future behavior, adherence, and intervention outcomes. From a clinical standpoint, your primary care provider should see how ready you are to change and then match his or her style and interventions to how ready you are.

- The five stages of change are as follows.
    - Contemplation: An individual is squarely in ambivalence—he or she can see the pros and cons of change but is not ready to change within the next six months. (An individual who is not at all ready to change and not really thinking about it is in the precontemplation stage.)

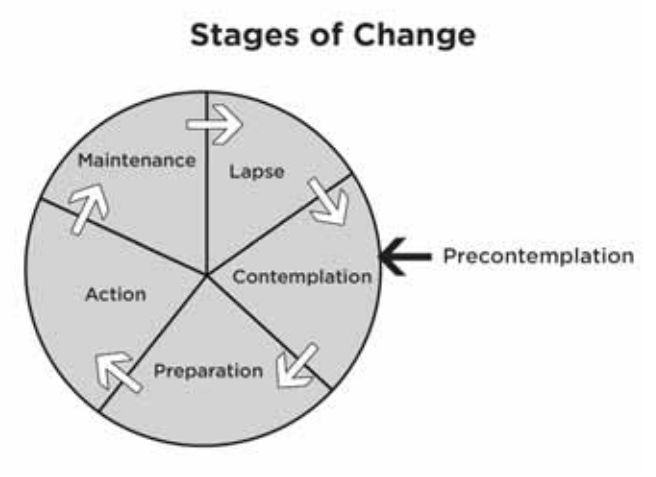
    - Preparation: An individual has decided to change but spends time building up confidence and resources to make change in the next month.

    - Action: An individual is actively in the process of change.

- Maintenance: This usually occurs after about six months of the action stage, although there is some variability.

- Lapse: This is the final stage. This occurs when an individual falls off the wagon.

- All five stages are arranged on a wheel because the model recognizes that most people can't just decide we are going to change, do it once, succeed, and be done. In fact, it usually takes multiple iterations. We move from precontemplation to contemplation, to preparation, to action, and to maintenance, and then we lapse. Hopefully, we learn something from whatever mistake we made so that the next time we go around the wheel, we have a better chance at succeeding.



- One way to get yourself or someone to move into the preparation or action stage is a set of motivational techniques that has grown from the transtheoretical model called motivational interviewing. It was originally intended for health-care providers but has recently spread into the lay public.

- One of the motivational interviewing techniques is identifying and responding to change talk, which is any statement that suggests that the person has thought about a problem, as well as his or her need, commitment, or ability to change. When you're listening to another person talk about his or her behavior, the goal is to pick out that change statement and reflect it back to them.

- Another motivational interviewing technique is decisional balance, in which you talk about the pros of changing, the pros of not changing, the cons of changing, and the cons of not changing. Research has shown, across different behaviors, that we don't change until we see the pros of changing as outweighing the cons.

- A third strategy of motivational interviewing is called the readiness ruler, which helps us reflect and hone in on what might cause us to become more ready to change. The interviewer asks questions to provoke ideas of goals and values with regard to change but doesn't insert his or her own beliefs or value system.

- Various meta-analyses that have been done on motivational interviewing have found that across controlled clinical trials, motivational interviewing yielded moderate effects for problems involving alcohol, drugs, diet, and exercise when compared to other interviewing techniques.

- In order to facilitate change, we want to improve or increase self-efficacy, which is the belief that one is capable of performing in a certain manner to attain certain goals. People with high self-efficacy are more likely to view difficult tasks as something to be mastered rather than something to be avoided.

- We also want to think about social context. We want a supportive environment, including supportive significant others, family, and friends that help facilitate change. Health-related behaviors are highly influenced by people around us. So, if you make the decision to change, ideally other key people in your social circle can make

that same decision. If not, then either change your social circle or give them clear instructions. In addition to social support, you might want to think about your social environment, removing temptations or triggers when possible.

CBT and Change

- How can CBT move us forward? The strategies we used all depend on the action plan that's developed, which in turn depends on motivation, goals, and resources. So, how do you develop an action plan?

- Action plans work if you first think about what resources you will need and put those resources in place. You need a very detailed plan with the step-by-step process that you're going to follow to facilitate change. You need a concrete and specific start date. You need to share your action plan with your social circle. There need to be regular reassessments to evaluate your progress toward your eventual goal. Importantly, you have to anticipate obstacles and expect setbacks and lapses. And you need regular consultations and adaptations to the plan if you're not able to meet those goals right away.

- Some of the CBT skills to use include having the right attitude, developing a hypothesis and testing it out, and evaluating success (or failure) and trying again.

- Inevitably, you might fall off the wagon. Often, at this point, cognitions come in the form of harsh self-criticism, which discourages us, depresses us, frustrates us, and takes away our self-confidence. We need to break out the CBT skills to challenge those harsh self-critical statements. Having a lapse is a normal and expected part of the process, and we should see it as an opportunity to learn something and do something differently next time.

Suggested Reading

Bandura, *Self-Efficacy*.

Burke, Arkowitz, and Menchola, "The Efficacy of Motivational Interviewing."

Duhigg, *The Power of Habit*.

McGonigal, *The Willpower Instinct*.

Miller and Rollnick, *Motivational Interviewing*.

Questions to Consider

1. Identify one health behavior you would like to change—for example, diet, physical activity, smoking, drinking, etc. Perform basic self-monitoring as a way to start; be sure to include frequency, quantity, triggers, outcomes, etc. After you have a week of data, consider small goals you could set.

2. Have you ever been successful in changing a behavior before (for example, stop smoking, lose weight, start exercise, etc.)? What helped you succeed? Are those lessons learned applicable to other behaviors?

Thinking Healthy: Weight and Nutrition

Lecture 16

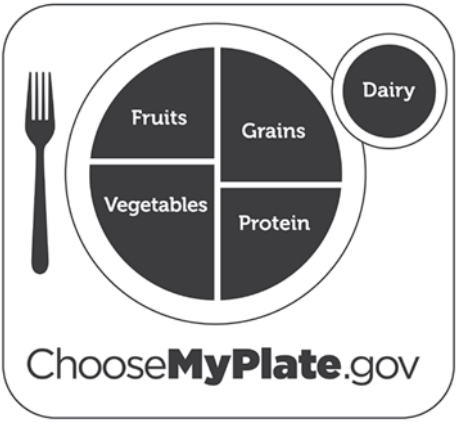
In this lecture, you will learn about a range of weight issues, including weight gain, weight loss, and, more importantly, fitness and wellness. CBT—with its focus on motivation, cognition, and behavior—has quite a few tools to offer, and you will learn what they are and if they really work. In essence, it is really difficult to change when it comes to weight management, but the best chance we have is probably slow and steady interventions through CBT.

The Epidemiology of Weight

- About 69 percent of men and women over the age of 20 are considered overweight or obese, and about 36 percent are considered obese. The rates of people who are overweight and obese have been rising dramatically over the past few decades for adolescents and adults. By the year 2030, 58 percent of the world is predicted to be overweight.

- Using the biopsychosocial model as a guide, we want to look at biological explanations, stress and other psychological variables, and the social environment for ways to change health behaviors. Like stress, obesity is an epidemic. There are many environmental pressures to make bad food choices. But are we really behaving differently when it comes to food? And how are we supposed to be eating?

- Many people are familiar with the old food pyramid with the carbohydrates on the bottom, then the fruits and vegetables, and finally the dairy, meat, oils, and sweets closer to the top of the pyramid. The pyramid was revised about every decade until recently, when it was scrapped completely.



- Today, we have MyPlate, and it's a relatively simple graphic—a bird's eye view of a plate with a little cup of dairy next to it. The plate looks like it's been approximately cut into four quadrants: one each for fruits, vegetables, grains, and protein. There are slightly larger portions of vegetables and grains and slightly smaller portions of fruits and protein.

- Unfortunately, people follow these simplified dietary recommendations only 2 percent of the time. And to count as following those recommendations, you only have to be compliant at 70 percent of your meals.

- The most commonly eaten vegetable is the potato, in the form of French fries or potato chips. The second most commonly eaten vegetable is the tomato, in the form of ketchup or pizza or pasta sauce. The third most commonly eaten vegetable is onions, and the fourth is iceberg lettuce, which is mostly water with little nutritional value.

- Why are we not making very good food choices in terms of what we eat? It might be partly ignorance—but that can't be all.

- About 60 percent of U.S. adults don't exercise regularly. But about 73 percent believe that they're in fair to excellent physical condition. About 25 percent of the population is sedentary, and it's estimated that this costs the U.S. health-care system 76 billion dollars per year.

- It's tempting to attribute our rising overweight and obesity rates to a failure in willpower—some sort of decline in character—but think of it in another way: If you gave a test to 100 people and 70 of them failed, would you assume that they were all lazy or lacked willpower, or would you begin to wonder about that test and what made it so difficult?

Energy Balance and Weight Loss

- Energy balance is the key to the regulation of body weight—calories taken in versus calories burned off. But it really isn't that simple, because our rate of energy expenditure or metabolism might vary.

- Energy expenditure occurs in three different ways: basal metabolic rate (about 60 percent of the total calories burned); thermic effect of food, which is the energy it takes to eat and digest your food (about 10 percent of the total); and activity thermogenesis, which is the calories burned from physical activity and exercise (about 30 percent of the total).

- The high percentage of our basal metabolic rate is partly why losing weight is so difficult. The body slows our metabolic rate when we're dieting. Our metabolic rate also slows as we age—in part due to the loss of lean muscle mass that burns calories much more quickly. So, as we age, it gets harder and harder to keep the weight off, and the more we diet, the more we run the risk of slowing down our metabolism.

- In addition, our food environment and even our culture make it extremely difficult to make good food choices. Think about your own family or cultural experience. Food is often tied with celebrations (birthdays) or holidays (Thanksgiving). It's also tied symbolically to feeling cared for or loved.

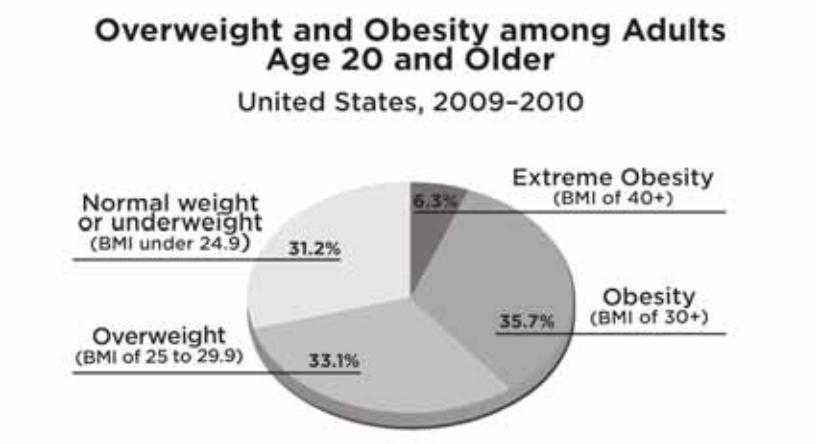
- Of course, those familial and cultural influences occur in a broader environment that influence our choices. This is partly about socioeconomic status, but there also are broader social influences. For example, about 50 million people eat at McDonald's per day, and one-quarter of the nation's vegetable consumption is French fries.

- In 1970, about 26 percent of our food dollars were spent eating out. That has increased to about 41 percent in 2005. Our portion sizes also have changed dramatically in the past 20 years. The National Heart, Lung, and Blood Institute reports that two pieces of pizza used to be around 500 calories, and now it's about 850 calories, for example.

- About 50,000 schools serve fast food for lunch. Physical education has been cut; it's no longer mandatory in many schools. The average child has spent more hours watching television than going to school by the time he or she graduates from high school. And children are on the Internet much more than they watch television.

- When we're stressed, it affects our food choices and our motivation to exercise. When we're stressed, 65 percent of us eat more candy or chocolate, 56 percent eat more ice cream, 53 percent eat more potatoes or corn chips, 49 percent eat more cookies, and only 8 percent eat more vegetables.

- What are some of the implications? We might need to think about reengineering food availability and changing our habits of how we respond to stress. We might want to limit our exposures to bad food. We might want to think about other stress-reduction strategies to manage our moods that don't involve reaching for candy or cookies. When we're stressed, we need to schedule an increased amount of time to sleep, and we need to exercise more, not less.



CBT for Exercising and Dieting

- The National Institutes of Health did a meta-analysis of 48 randomized controlled trials, in which they found that there was an average weight loss of eight percent over a period of one year. At a three- to five-year follow-up, there was zero weight loss.

- More realistic initial goals for weight loss are to be as fit as possible at your current weight and not to worry so much about the number and to prevent further weight gain as you get older. If you can be successful at the first two, then the third goal should be to begin weight loss.

- Both dieting and exercise are important, but if your goal is to lose pounds, dieting will probably get you there quicker than exercise will. Ideally, you would do a little bit of both.

- Some of the skills that are helpful when dieting include self-monitoring (knowing your baseline, or where you're starting), stimulus control (removing temptation from your environment), cognitive restructuring (what thoughts do you have when you're deciding what to eat or what not to eat?), and motivational enhancement (such as motivational interviewing in the transtheoretical model).

- There are a number of well-designed CBT programs for weight management and physical activity, but most of them have been shown to have fairly modest effect sizes. One of the best models comes from Judy Beck, daughter of Aaron T. Beck, the father of CBT. In her book *The Beck Diet Solution*, she plans out a 42-day action plan to help individuals realize their exercise and weight-loss goals.

- The plan starts with self-monitoring and a behavioral analysis. What really makes you eat? Why do you really want to lose weight? How do you think like a thin person? This moves you into the realm of cognitive restructuring.

- Some of the habits that she talks about include paying attention to what foods you select at the grocery store, taking time to plan and prepare meals, thinking about the choices you're making, serving food on smaller plates, eating slower and without distraction, and pausing for 20 minutes after a serving before you decide you need more.

Taking the time to plan meals is a good habit to have when you are trying to manage your weight.

- More than 100 studies on weight loss and CBT have been conducted, all testing slight variations on the model or populations and all having behavioral interventions as number one and cognitive interventions as number two.

- For example, in 2012, Eduardo Pimento conducted an international study looking at a small sample of middle-aged women. They used an eight-week randomized controlled trial of CBT and were able

to show decreased weight, decreased body mass index, decreased waist circumference, and improved eating habits. But the effects were modest.

- In 2011, Denise Wilfley and colleagues conducted a comprehensive literature review focusing on children and adolescents. They used behavior therapy supplemented with cognitive restructuring, and they found that this combination was the strongest nonmedical treatment for children and adolescents. They used self-monitoring and stimulus control, both of which are invaluable behavioral components.

- The U.S. Preventive Services Task Force recommends multimodal approaches to weight management and specifically lists CBT as a core ingredient.

- A number of large longitudinal studies have shown that it's not just about fat—it's also about fit. An overweight but fit person is much better off than a thin person who is unfit. In fact, even small improvements in fitness can have substantial benefits.

- There are many benefits of physical activity. It increases in cardiorespiratory fitness, reduces morality, decreases risk of chronic diseases (such as cardiovascular disease, hypertension, diabetes), and increases psychological well-being.

- Greater health benefits are associated with greater levels of activity, but exercise does not need be intense or prolonged to be beneficial. If possible, you should aim for 60 to 90 percent of your maximum heart rate; you can derive your maximum heart rate by subtracting your age from the number 220. The greatest relative benefit may be gained by previously sedentary people becoming even slightly active.

- In 2011, Chi Pang Wen and colleagues published by a study of 416,000 subjects that were followed over a period of eight years. In this study, they found that inactive people who increased their

physical activity by just 15 minutes per day reduced their risk of death by 14 percent and increased their life expectancy by three years. Each additional 15 minutes of exercised lowered their risk by an additional four percent.

Suggested Reading

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Beck, *The Beck Diet Solution*.

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Wen, Wai, Tsai, Yang, Cheng, Lee, Chan, Tsao, Tsai, and Wu, "Minimum Amount of Physical Activity for Reduced Mortality and Extended Life Expectancy."

Wildman, Muntner, Reynolds, McGinn, Rajpathak, Wylie-Rosett, and Sowers, "The Obese without Cardiometabolic Risk Factor Clustering and the Normal Weight with Cardiometabolic Risk Factor Clustering."

Wilfley, Kolko, and Kass, "Cognitive Behavioral Therapy for Weight Management and Eating Disorders in Children and Adolescents."

Questions to Consider

1. More than two-thirds of the U.S. population is now overweight or obese, despite the billions we spend on healthy foods, diets, gyms, personal trainers, technological gadgets, etc. What would be the most effective and efficient intervention to address this problem? Justify your choice, and consider the pros and cons of what you recommend.

2. The rate of increase for childhood obesity has leveled off in recent years. What do you think caused this success? Why hasn't it worked for adults?

Behavioral Therapy for Chemical Addictions

Lecture 17

The misuse and abuse of alcohol and drugs continue to be a central challenge both to our society and health-care system. Like other mental illnesses or diseases of the brain, substance use disorders carry a great amount of stigma, blame, and misinformation. In this lecture, you will be exposed to the basics of substance use disorders, and you will learn what second- or third-wave CBT therapies might be able to offer in terms of treatment.

Substance Use Disorders

- About 52 percent of people are regular drinkers, which is defined as someone who has at least 12 drinks over a one-year period. About 23 percent of people are defined as risky drinkers. About 7.2 percent of people have a diagnosable alcohol use disorder, which equates to about 17 million adults.

- Drinking often starts early. In fact, about 24 percent of eighth graders consume alcohol, and about 64 percent of twelfth graders consume alcohol. About 50 percent of college students binge drink, causing about 1,800 deaths per year.

- Alcohol use continues into older age. Research showed that about 3 percent of older adults met the full criteria for an alcohol use disorder or alcoholism. At-risk drinking was reported in 19 percent of individuals aged 50 to 64 and in 13 percent of respondents aged 65 and higher. Binge drinking was reported in 23 percent of individuals aged 50 to 64 and still in 15 percent of individuals over the age of 65.

- The medical complications of alcohol use include hypertension, stroke, cardiomyopathy, cirrhosis of the liver, pancreatitis, and mouth, throat, and liver cancer. In fact, 25 to 40 percent of patients who occupy general hospital beds are thought to have alcohol problems.

- Research showed that about 9.2 percent of Americans, or about 24 million people, 12 years old or older used an illicit drug in the past year. The most commonly used illicit drug was marijuana, at 14 percent use at any time in the past year or 7.3 percent use in the past month. Marijuana can be addictive, and about 9 percent of individuals who regularly use marijuana develop a substance use disorder.

- A rising and more recent category of abuse is with prescription medication, including painkillers (such as Oxycodone, Vicodin, and Percocet), tranquilizers (such as Valium, Xanax, and Ativan), and stimulants (such as Adderall and Ritalin).

- In 2009, 7 million Americans reported current (within the past month) nonmedical use of prescription drugs—more than the number of individuals using cocaine, heroin, hallucinogens, and inhalants combined. And that number continues to rise, especially with painkillers.

- In fact, prescription drug overdose was the leading cause of injury death in 2012. And among people aged 25 to 64 years old, drug overdose caused more deaths than motor vehicle traffic accidents.

- There are many psychosocial aspects or social consequences related to substance use disorders or the use of substances. Alcohol is involved in one-half to two-thirds of all homicides and at least one-half of serious assaults. About 70 percent of incarcerated individuals have a substance use disorder. It accounts for one-third of all criminal justice costs and about 50 percent of all cases of child abuse and neglect.

- There is a continuum of substance use, from abstinence, to low risk, to at risk, to substance use disorders, which can be mild, moderate, or severe. In order to be diagnosed with a substance use disorder, you have to meet a minimum or two diagnostic criteria out of a total list of 11. If you have two to three of these criteria,

you're considered mild. If you have four to five, you're considered moderate. If you have six or more, you're considered severe. The 11 criteria are as follows.

- Failing to fulfill obligations
- Hazardous use
- Social/interpersonal problems
- Tolerance
- Withdrawal
- Being unable to cut down
- Using more than intended
- Neglecting important activities
- Spending a lot of time getting the substance
- Psychological or physical problems
- Craving

Screening for Substance Use Disorders

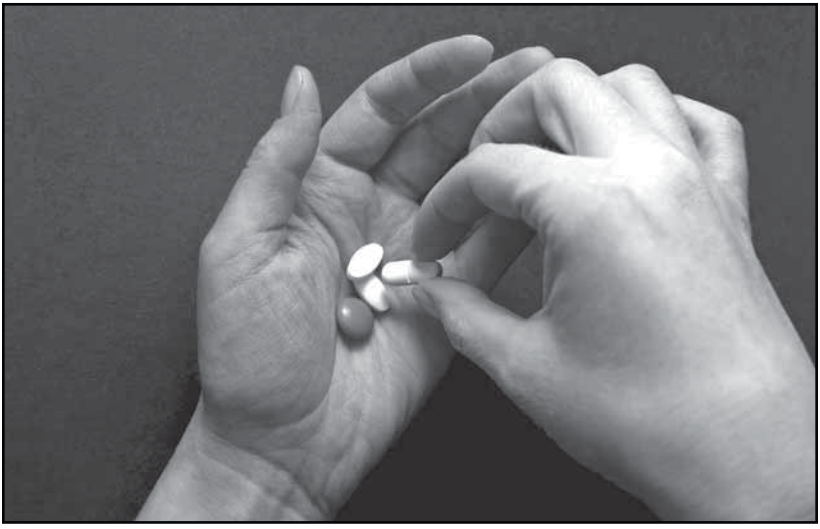
- Commonly used screening tests for alcohol and drug use include a single-question screener for alcohol put out by the National Institute on Alcohol Abuse and Alcoholism (How many times in the past year have you had x or more drinks in a day?; $x = 5$ for men and 4 for women or anyone over the age of 65) and the 10-question Alcohol Use Disorders Identification Test that focuses on recent alcohol use, dependence symptoms, and alcohol-related problems.

- The National Institute on Alcohol Abuse and Alcoholism also puts out a single-question screener for illicit drugs: How many times in the past year have you used an illicit substance or a prescription

medication for nonmedical reasons or because of the way it made you feel? In addition, a questionnaire that is often used is the Drug Abuse Screening Test.

- SBIRT (screening, brief intervention, referral to treatment) is an increasingly popular public health approach to doing screening and brief intervention for substance use disorders in primary care settings. Following this approach, you quickly assess the use and severity of alcohol, illicit drugs, and prescription drug abuse. Then, the brief intervention is a three- to five-minute motivational and awareness-raising intervention given to risky or problematic substance users. The final step involves referrals to specialty care for patients with substance use disorders.

- A recent meta-analysis of SBIRT suggests an overall reduction of 56 percent in the number of drinks. Research has shown that brief interventions can reduce alcohol use for at least 12 months in patients who are not alcohol dependent.



In 2009, 7 million Americans reported current (within the past month) nonmedical use of prescription drugs.

- Brief interventions are really for people who are at-risk users. But what about people with full-blown substance use disorders? In 2012, an estimated 23.1 million Americans needed treatment for a problem related to alcohol or drugs, but only about 2.5 million people—or a little more than 10 percent—received treatment at a specialty facility. That means that there are millions of people who simply aren't getting into treatment.

Treatments for Substance Use Disorders

- The most commonly used form of treatment for substance use disorders is a 12-step program, such as Alcoholics Anonymous or Narcotics Anonymous, that uses a peer-to-peer individual and group counseling model.

- In 2013, there were about a million people that were involved in some sort of 12-step program, and there were about 60,000 meetings occurring somewhere in the United States. Studies have shown that the effectiveness rate is only about five to 10 percent—but that's for people who stick with it. Unfortunately, 90 percent of the people who go to a meeting drop out in the first 90 days.

- The community reinforcement approach (CRA) is a different type of treatment. There are four main components of the CRA.
    - The first component is a functional analysis of substance use, in which the triggers, or the antecedents, of use as well as the positive and negative consequences are explored.

    - The second element is called sobriety sampling. The idea is that movement toward abstinence begins with the client's agreement to sample a brief period of abstinence.

    - The next part of CRA is the actual treatment plan, in which you want to establish meaningful, objective goals that are selected by the client and negotiated with the clinician. You want to establish specified methods for obtaining those goals. Some of the tools used are the Happiness Scale and a Goals of Counseling form.

- They might add behavior skills training, in which they teach three basic skills through instruction and role playing: problem-solving skills, communication skills (specifically, helping people have a positive interaction style even in the face of conflict), and drink/drug refusal training. The next skills training is job skills training, in which they teach the basic steps and skills necessary for getting and keeping a job. Other components might include social and recreational counseling, relapse prevention, and relationship counseling.

- Mindfulness-based relapse prevention (MBRP) is another type of therapy. It was initially developed by Alan Marlatt and is currently being studied by Sarah Bowen. This kind of therapy is in the realm of third-wave therapies, with their focus on mindfulness and acceptance. MBRP uses the acronym SOBER: stop, observe, breathe, expand awareness, and the respond mindfully.

- In a study that was published in 2014, Sarah Bowen looked at 268 individuals with substance use disorders. She analyzed three different kinds of treatment: CBT relapse prevention, MBRP, and treatment as usual. For individuals in aftercare following initial treatment for substance use disorders, CBT relapse prevention and MBRP were superior to treatment as usual.

- At the 12-month follow-up, MBRP offered an added benefit over CBT and treatment as usual in reducing drug use and heavy drinking. Targeted mindfulness practices may support long-term outcomes by strengthening an individual's ability to monitor and skillfully cope with discomfort associated with craving or negative affect.

- Therapeutic education system (TES), developed by Lisa Marsch and colleagues at Dartmouth University, is delivered in a different modality. With TES, there are 62 Internet modules. In 2014, a team led by Aimee Campbell and Edward Nunes looked at 507 individuals using alcohol and drugs and working their way through the 62 Internet modules. They found that TES was superior to treatment as usual on both adherence and abstinence.

- TES uses a contingency management system to get people to do the modules. There are a number of different variants on contingency management where you use lotteries or payments as a reward for someone who, for example, comes in and gives a urine sample to prove that he or she hasn't been using drugs.

- But does contingency management work, and should we pay people to not engage in unhealthy behaviors? In 2013, Nadine Farronato and colleagues did a systematic review of CBT versus contingency management for cocaine addiction. They found that contingency management produced very rapid results in the beginning of treatment and CBT produced results toward the end and after treatment had ended. About half of the studies that did a combination of the two showed better results, but half showed no advantage.

- In 2011, Kate Cahill and Rafael Perera reviewed 19 different smoking-related studies, with a total of about 4,500 different subjects. Only one large study out of 19 showed that payments for abstinence were beneficial. The incentives did increase participation, but the initial success faded after the rewards went away. It seems like incentives are just one extrinsic motivator, and the results are mixed for now.

- Community reinforcement approach and family training (CRAFT) is a recent outgrowth of CRA that focuses on how to help the families and loved ones of those abusing alcohol or drugs. The goal of CRAFT is to use positive communication to reinforce positive behaviors while taking care of yourself and using others' social supports. You want to highlight positive interactions, positive conversations, times when your loved one is sober or not using, and times when he or she has been reliable. Thus far, the research results are positive.

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Blazer and Wu, "The Epidemiology of At-Risk and Binge Drinking among Middle-Aged and Elderly Community Adults."

Bowen, Chawla, and Alan Marlatt, *Mindfulness-Based Relapse Prevention for Addictive Behaviors*.

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Campbell, Nunes, Matthews, Stitzer, Miele, Polsky, Turrigiano, Walters, McClure, Kyle, Wahle, Van Veldhuisen, Goldman, Babcock, Stabile, Winhusen, and Ghitza, "Internet-Delivered Treatment for Substance Abuse."

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Fanning and O'Neill, *The Addiction Workbook*.

Farronato, Dürsteler-Macfarland, Wiesbeck, and Petitjean, "A Systematic Review Comparing Cognitive-Behavioral Therapy and Contingency Management for Cocaine Dependence."

Gruber, Pope, Hudson, and Yurgelun-Todd, "Attributes of Long-Term Heavy Cannabis Users."

Martin, "The Epidemiology of Alcohol-Related Interpersonal Violence."

Smith, Schmidt, Allensworth-Davies, and Saitz, "Primary Care Validation of a Single-Question Alcohol Screening Test."

Questions to Consider

1. Recreational marijuana is now legal in several states (including Washington, Oregon, Colorado, and Alaska). What are the primary arguments for and against the legalization of marijuana? Will it create a spike in substance use disorders?

2. Are sexual or Internet addictions really the same as chemical addictions like addictions to alcohol or drugs? How might they be similar or different? Are these behavioral addictions modern, or are there historical examples?

Getting a Good Night's Sleep

Lecture 18

Insomnia is defined as difficulty with the initiation, maintenance, duration, or quality of sleep that results in the impairment of daytime functioning, despite adequate opportunity and circumstances for sleep. In this lecture, you will learn that the same toolbox of CBT skills and strategies—assessment, self-monitoring, behavioral analysis—can be helpful for insomnia, as well as for energy and fatigue. In addition to insomnia, you will learn about normal sleep, including quantity, frequency, and stages of sleep.

Insomnia

- Most research studies adopt an arbitrary definition of insomnia as a delay of more than 30 minutes in sleep onset or a sleep efficiency of less than 85 percent. Your sleep efficiency is simply the ratio of time asleep to time spent in bed times 100.

- Fewer than half of Americans say that they get a good night's sleep on most nights. About 10 percent of the U.S. population has chronic insomnia, with chronic being defined as lasting more than one month. Higher rates of insomnia are found in people with chronic pain, psychiatric disorders, and alcohol or drug addictions, and the prevalence of insomnia rises with age.

- There is a large societal and economic impact of insomnia. In fact, *Business 2.0* estimates the American "sleeponomics" to be worth about 20 billion dollars per year, including everything from the more than 1,000 sleep clinics conducting overnight tests for disorders like apnea, to countless over-the-counter and herbal sleep aids, to how-to books and sleep-encouraging gadgets and talismans.

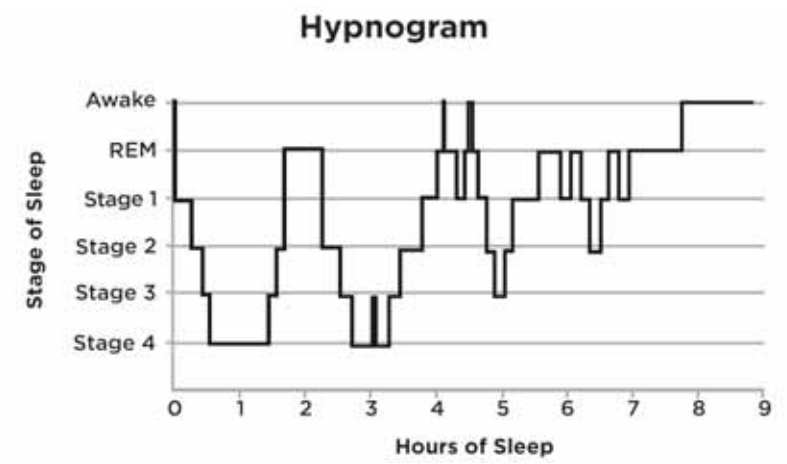
- Why do we sleep? What is the function? We don't actually know for sure, but we do know some of the medical consequences if an individual is sleep deprived. Anyone who has missed a night of sleep is very familiar with the compulsion for sleep the next day and the impairment in functioning and mood.

We don't know exactly why we sleep, but we do know the consequences of a lack of sleep.

Sleep

- On average, we need to have about seven to eight hours of sleep per night. Sleep is organized into five sleep stages that are systematically spread across time: stages one, two, three, and four (non-REM sleep stages) and rapid eye movement (REM) sleep, in which we do our dreaming.

- Each stage has a characteristic pattern on an electroencephalogram (EEG) that measures brain activity. A sleep hypnogram is a special kind of graph that plots stages of sleep over time—usually only the EEG activity. This type of graph shows the different stages of sleep and the multiple sleep cycles that occur over the night.



- A full cycle of sleep includes all five stages and is typically 90 to 100 minutes long, with a total of four to six cycles over the course of any given night of sleep. In general, the healthy young adult non-REM sleep accounts for about 75 to 90 percent of sleep time, and REM sleep accounts for about 10 to 25 percent.

- The proportion of time we spend in slow-wave sleep changes as we age. Men 20 to 29 years of age spend about 21 percent of their total sleep in slow-wave sleep. Once they reach ages 40 to 49, slow-wave sleep drops to about 8 percent, and those aged 60 to 69 only spend about 2 percent of their sleep time in slow-wave sleep. We really don't know why this is the case, but it's fairly well accepted that our sleep architecture changes as we grow older.

- There are two biological systems that make us sleep: circadian rhythms and the sleep homeostatic drive. There are psychological factors, such as expectations, scripts, behaviors (especially things you do right around bedtime), stress, mental fatigue, and depression. There are also social, cultural, or environmental factors (such as the sleep environment, which might make it easier or more difficult for you to fall asleep).

- Circadian rhythms essentially refer to our body's biological clocks. We have a number of automatic processes, such as body temperature or even normal cortisol secretion, that have daily diurnal rhythms, so something has to keep track of what time it is. We've all had the experience of waking up before our alarm clock or of knowing that it's around 3 pm in the afternoon because you are starting to get sleepy. It's all about circadian rhythms.

- We think of the sleep homeostatic drive as the yin to the yang of the circadian rhythm system. Our circadian rhythms help promote wakefulness during the day while our sleep homeostatic drive creates a drive for sleep that accumulates throughout the day and maximizes before bedtime. If you are sleep deprived, you might feel this profound and powerful drive to fall asleep at any time during the day.

- If we want to think about the psychological, behavioral, social, and environmental factors of sleep, we can combine them into something called sleep hygiene. Sleep hygiene is essentially a list of conditions that we believe are helpful or hurtful in terms of helping an individual get a good night's sleep.

Sleep Hygiene

- Keep regular bedtime and wake-up times.
- Keep the bedroom quiet, comfortable, and dark.
- Do a relaxation technique for 10 to 30 minutes before bed.
- Get regular exercise.
- Don't nap.
- Don't lie in bed feeling worried, anxious, or frustrated.
- Don't lie awake in bed for long periods of time.
- Don't use alcohol, caffeine, or nicotine.
- Turn off your television, cell phone, and computer.

Energy and Fatigue

- Fatigue can be caused by a number of factors and is usually the body's way of slowing us down so that it can recover, often by helping us go to sleep. We often complain that we don't have enough energy—hence the market for energy drinks and the vast success of Starbucks coffee.

- But how can we assess what level of energy is normal? Why is it that some people are still fatigued even after a good night's sleep? How can some people be exhausted even if they haven't exerted themselves?

- Sleep and fatigue are closely related to one another, but they're not entirely the same. Fatigue is one of the most commonly presented symptoms in a primary care practice. In typical clinical practice, fatigue is evaluated with one item only: On a scale of 1 to 10, with 10 being the most severe, what is your average level of fatigue? Any patient who reports a rating of 4 or higher warrants a further workup.

- Things that might be assessed at this point include stress, depression or other mental health issues, nutrition, medications (over the counter or prescription), quality of sleep, chronic pain, anemia, thyroid function, or a number of other medical conditions that might help to explain your fatigue.

- There are targeted interventions that we might try for any of these factors, but first we need to start with assessment. One way to measure sleep is with a sleep diary, which is essentially self-monitoring for sleep.

- In a sleep diary, we want an individual to write down the time entering and leaving bed, sleep onset latency (how long it takes to fall asleep), number and duration of awakenings during the night, time of final awakening, napping, subjective sleep ratings of the quality of sleep, daytime sleepiness, medications/alcohol, and sleep efficiency.

- There are a number of new technological tools for assessing sleep, such as Fitbit or other technologies that you can strap to your wrist. You wear it while you sleep, and these devices are able to deduce how well you slept that night. This is much easier than a sleep diary, but it doesn't give you as much information.

- If you were interested in measuring fatigue, there are a number of questionnaires—many from the cancer literature and some from the chronic fatigue literature—that measure fatigue intensity, consequences or impact of fatigue, timing of fatigue, related symptoms, and self-care actions.

CBT for Insomnia

- There are CBT interventions that have been especially designed for insomnia. In fact, there's a subtype of CBT called CBT-I, where the "I" stands for insomnia. This particular subset of CBT focuses on changing sleep habits, altering schedules and sleep environments, and challenging misconceptions about sleep. CBT-I starts with an assessment (usually a detailed sleep diary), moves to a formulation for likely causes, and includes psychoeducation on sleep and sleep hygiene.

- Another intervention for people with insomnia is stimulus control therapy. For example, the patient is told only to go to bed when he or she feels sleepy, only to use the bed for sleep and sex (not for work), and to get out of bed if he or she is not able to fall asleep within 30 minutes.

- This is similar to a type of therapy called sleep restriction therapy, which is used for people who are spending a lot of time tossing and turning in bed. For this type of therapy, patients reduce the number of hours they spend in bed to their estimated sleep time. Then, they increase the amount of time they spend in bed in 15-minute increments until their sleep efficiency is up to about 90 percent.

- Patients also might try progressive muscle relaxation, imagery, or other somatic quieting as relaxation strategies to help ease them into sleep. In addition, they might try some cognitive restructuring if right before bedtime they are having cognitions that make them anxious or activated or make it more difficult to sleep.

- Two large meta-analyses have shown that CBT, in comparison to a placebo control, yielded improvement in sleep latency and total sleep time in about 50 to 60 percent of people. However, that leaves a pretty good chunk of the population that it didn't work for.

- Sleep hygiene and other interventions can be tried, but there are also sleep medications or sleeping pills that fall into a few different categories: sedatives/hypnotics, benzodiazepines, benzodiazepine agonists (such as Ambien, Sonata, and Lunesta), and antidepressants. Over-the-counter drugs include diphenhydramine (Benadryl and Tylenol PM) and melatonin.

- It's estimated that about 50 million prescriptions for sleep aids are written every year, and they cost about 4 billion dollars. These drugs can certainly put a person to sleep, but sleep is very complex, and we just can't have the same quality of sleep with pharmacotherapy.

- In fact, a randomized controlled trial that was published by Gregg Jacobs and colleagues in 2004 looked at CBT versus medications versus a combination versus a placebo. They had four different conditions. They found that CBT outperformed medications and that there was no advantage to using the combination of CBT plus medications.

- In a systematic review by Matthew Mitchell and colleagues in 2012, they found that CBT-I for insomnia was superior to medications overall.

Suggested Reading

Jacobs, *Say Goodnight to Insomnia*.

Jacobs, Pace-Schott, Stickgold, and Otto, "Cognitive Behavior Therapy and Pharmacotherapy for Insomnia."

Mendoza, Wang, Cleeland, et al, "The Rapid Assessment of Fatigue Severity in Cancer Patients."

Mitchell, Gehrman, Perlis, and Umscheid, "Comparative Effectiveness of Cognitive Behavioral Therapy for Insomnia."

Morin, Colecchi, Stone, Sood, and Brink, "Behavioral and Pharmacological Therapies for Late-Life Insomnia."

Piper, Dibble, Dodd, et al, "The Revised Piper Fatigue Scale."

Sivertsen, Omvik, Pallesen, Bjorvatn, Havik, Kvale, Nielsen, and Nordhus, "Cognitive Behavioral Therapy vs. Zopiclone for Treatment of Chronic Primary Insomnia in Older Adults."

Smith, Perlis, Park, Smith, Pennington, Giles, and Buysse, "Comparative Meta-Analysis of Pharmacotherapy and Behavior Therapy for Persistent Insomnia."

Questions to Consider

1. Is a decline in the quality of sleep an unavoidable consequence of age? What can you do that might mitigate the negative effects of lower-quality sleep?

2. Despite decades of research, we still don't have a clear idea of why we dream. What are the beliefs you hold about dreams and dreaming? Are they random noise? Are they worthy topics for exploration in psychotherapy (for example, dream analysis)?

Mastering Chronic Pain

Lecture 19

Whether minor or severe, chronic pain is regularly experienced by 15 to 20 percent of Americans each year. Both cognitive and behavioral factors influence the experience of pain and the intensity of suffering. In this lecture, you will learn about pain, how it is measured, and how psychological factors can alter the experience of pain. You also will learn about mind-body factors and chronic pain, including gate theory, depression, anxiety, positive emotions, and stress. Furthermore, you will learn how well the CBT toolbox works for pain.

Pain

- The International Association for the Study of Pain defines pain as an unpleasant sensory and emotional experience associated with actual or potential tissue damage. The largest cause of acute pain is surgery. Approximately 46 million procedures are performed each year, and most patients report moderate to severe pain post-surgically, even in the face of current treatments and techniques.

- In general, acute pain is thought to be an important and adaptive signal. It tells us of imminent tissue damage. It only takes one touch of a hot stove to learn not to touch that hot stove. There are diseases such as Hansen's disease, commonly called leprosy, where an individual is unable to feel pain, and as a consequence, he or she suffers ongoing tissue damage.

- But there are also times when pain misinforms us—like in the case of fibromyalgia, a chronic pain disorder—or is so intense that it overwhelms us. Fortunately for some, pain can be entirely suppressed so that we can think clearly and escape danger.

- The process of being able to feel pain is called nociception. There are four basic steps.

- Transduction: where nociceptors, or pain receptors, transduce noxious stimuli into nociceptive impulses.

- Transmission: where electrical impulses are sent via afferent nerves to the spinal cord and then along sensory tracts to the brain.

- Modulation: the process of dampening or amplifying pain related to the neural signal (hugely important for mind-body medicine).

- Perception: the subjective experience of pain that results from transduction, transmission, and modulation plus psychological and social factors at play within the individual.

- Chronic pain has usually been defined arbitrarily as pain that persists for three to six months or longer, or beyond the period of expected healing. Ongoing or progressive tissue damage may be present in some types of chronic pain, including progressive neuropathic pain and some rheumatologic conditions. In other cases, chronic pain may be present when tissue damage is stable or even undetectable.

Chronic pain, such as the pain experienced by arthritis sufferers, is thought to be a disease of the central nervous system.

- Unlike acute pain, chronic pain is now thought to be a disease of the central nervous system that involves some sort of maladaptive reprogramming of the brain and/or spinal cord. The brain can generate terrible pain in a wound that has long healed or even chronic pain in a limb that has been amputated and no longer exists.

- On average, 15 to 20 percent of Americans experience chronic pain each year—approximately 46 million people. Headache is the most common, followed by back pain, arthritis pain, and other musculoskeletal pain.

- We need to distinguish acute pain from chronic pain. We think of chronic pain as a syndrome—really as an entirely different disorder. In a way, it takes on a life of its own. In addition to the reprogramming of the brain, chronic pain also has potentially devastating consequences on mood, depression, anger, anxiety, social relationships, finances, and image. You can think of chronic pain as a chronically stressful condition that essentially keeps the stress response turned on all the time.

Measuring Pain

- In a medical setting, pain is now called the fifth vital sign, and it's regularly assessed. Clinicians assess the sensation, or nociception, of pain. They simply ask, on a scale of 1 to 10, with 10 being the most intense, what's your average pain? They also might ask you, what's the highest pain you've experienced in the past week? What's the lowest? What makes it better? What makes it worse? Clinicians might show younger individuals a series of happy to sad faces and have them point to which of those best matches the intensity of the pain they feel.

- Clinicians also might do some functional impairment measures. They are looking for impairment in activities of daily living as well as social or occupational impairment as a consequence of your pain.

- You also might be asked to rate, on a scale of 1 to 10, your level of emotional suffering. It's important to distinguish between the physical sensation of pain and the emotional suffering that might be tied to pain; they're often correlated with one another, but they might be quite different.

- Keep in mind that there is no objective measure of pain; there is no lab test. It's all based on self-report.

The Role of the Central Nervous System

- The central nervous system is involved in pain. The central nervous system is the seat of cognition, emotion, and expectation. The central nervous system also is important in directing the transduction from the psychological experience of pain into the biological, and vice versa.

- The nociceptors transmit signals to the spinal cord, which then transmit to the central nervous system or to the brain, where perception and modulation might occur. Modulation of pain happens all the time. For example, soldiers on the battlefield might not realize they've been injured and feel no pain until they're in a safer context, and then they begin to feel pain.

- In response to the growing awareness of mind-body phenomena in the realm of pain, the gate control theory of pain was first described in the early 1960s by Ronald Melzack and Patrick Wall. In this theory, pain signals encounter what are called nerve gates in the spinal cord that open or close depending on a number of factors, possibly including instructions coming down from the central nervous system.

- When the gates are open, pain messages can get through, and pain can be intense. When the gates close, pain messages are prevented from reaching the brain and may not even be experienced at all. It essentially gives us one mechanism for modulation that takes place in the spinal cord.

- A number of observational studies on the variability of pain experience have suggested that gate control might actually be true. Something must be happening to modulate the experience of pain, which has been well documented. For example, we know that pain transmission seems to have a limited bandwidth. You have, for example, A fibers that send fast and sharp pain, and you have C fibers that send slow and dull pain. If you stub your toe or hit your hand, the A fibers are activated. You might rub your toe or hand to stimulate the C fibers, which then displace the A fibers signal.

- Positive or negative emotions can influence the experience of pain. For example, if a clinician puts an individual in a burn test condition, the patient usually holds something that looks like a soldering iron. Once it starts to get hot, the clinician waits to see how long the individual can hold on to the hot rod before feeling like it's burning him or her. When a person is in a positive mood state, he or she will hold on to the rod longer and the pain sensation is diminished.

- The opposite is true if a person is depressed, which tends to intensify the sensation of pain. Stress, depending on the circumstance, can either intensify or diminish pain.

- A study by Irene Tracey at Oxford showed that thinking about pain increases the sensation of pain. Subjects were asked to think about their chronic pain, and they showed an increased activation in their pain-perception circuits.

- Distraction, on the other hand, can be a good pain reliever. In another study, Dr. Tracey's subjects were asked to do a complex counting task while they were being burned with a heat wand. Their perception of pain was much less while distracted, and corresponding brain imaging showed lower activation in pain centers.

- Distraction could be interfering with cognitions that would otherwise amplify the experience of pain. Distraction might be causing some sort of reduction in tension, or maybe it's some form of somatic quieting.

Stress and Pain

- In conditions of extreme stress—like trauma—our experience of pain may be entirely shut down. But even more, minor acute stressors are known to produce something called stress-induced analgesia. Our fight-or-flight system and our HPA axis stress response not only lead to the release of epinephrine and cortisol, the stress hormones, but they also promote the release of beta-endorphins, part of the family of endogenous opiates, our internal pain killers.

- Our stress response systems and the chemical messengers they release were really intended for short-term situations and not the more common stressors we encounter today, which are often of a chronic nature.

- Chronic stress does not produce analgesia. In fact, it sometimes produces hyperalgesia, or increased sensitivity to pain. We don't fully understand how this happens, and there are most likely a number of different mechanisms, most of which include some sort of structural rewiring of the central nervous system triggered by high levels of gluccocorticoids.

- If stress seems to be playing a major role, then it is time to move to our strategies for stress management. This might include various somatic quieting, working with primary or secondary appraisals, better use of coping resources, or adding in new activities that help mitigate the effects of stress.

Treating Pain

- When it comes to treating pain, most people immediately think of pharmacotherapy—these are the drugs in the opioid family like morphine, hydrocodone, or oxycodone. These drugs work because of their similarity to our bodies' own pain relievers, the endogenous opiates.

- There are several non-pharmacological treatments. The chronic care model encourages more patient empowerment and self-management. If we think of chronic pain as a chronic disease, it might benefit from this model.

- A core skill is self-monitoring, but in the case of pain, this would involve creating a self-monitoring form, such as a pain diary, to collect data and then creating a treatment package.

- In a treatment package, we might have pharmacotherapy as one tool to combat chronic pain, but we might also want to think about practical, structural, or even mechanical interventions. This

would include things like physical therapy, occupational therapy, environmental changes, having pull bars in your home, and using walkers, braces, wraps, ice, heat, or massage.

- Part of the treatment package should also include the psychological. We would want to include some cognitive strategies, including assessing an individual's expectations for and attitude about his or her pain. We want to challenge maladaptive cognitions, including catastrophizing, all-or-none thinking, and maximizing/minimizing. We also want to use cognitive strategies for stress management.

- We want to add some behavioral strategies to the pain management package. Behavioral strategies include physical therapy and massage, graded or graduated physical activity (exercise starting at a modest level and slowly building until a person has more flexibility, strength, and endurance), and somatic quieting.

- A critical behavioral element is activity scheduling. Lower activity levels mean less reward and reinforcement—and often lower mood. We want an individual to start scheduling positive activities. We can have him or her engage in pleasure predicting, in which the patient rates his or her predicted enjoyment of a prospective activity on a scale of 1 to 10. Then, after the patient does the activity, he or she rerates the level of pleasure actually experienced. Almost always, the patient finds that he or she enjoyed it more than predicted.

- Once you have more data from the patient, you can start identifying potentially helpful interventions. If cognitions are amplifying suffering, then you should do some thought records. If there are very few physical or social activities, then you might want to do graduated exercise or physical therapy and some activity scheduling. If it's depression, then you might want to add social contacts and positive activities.

- In 2012, Amanda Williams, Christopher Eccleston, and Stephen Morley looked at CBT versus treatment as usual or wait-list controls and found that CBT has statistically significant but small

effects on pain and disability and moderate effects on mood and catastrophizing. By six to 12 months, the main effect was on mood.

- A review of behavioral treatments, including CBT, for chronic low back pain concluded that behavioral treatments were more effective than usual care for pain post-treatment but not different in intermediate- to long-term effects on pain or functional status.

- A review of behavioral treatment for headaches by Frank Andrasik in 2007 describes CBT-based interventions (relaxation, biofeedback, and cognitive therapy) as reducing headache activity by as much as 30 to 60 percent on average across studies.

- Other meta-analyses have supported the efficacy of psychological treatments, including CBT, in reducing arthritis and fibromyalgia pain.

Suggested Reading

Andrasik, "What Does the Evidence Show?"

Astin, Beckner, Soeken, Hochberg, and Berman, "Psychological Interventions for Rheumatoid Arthritis."

Caudill, *Managing Pain before It Manages You*.

Glombiewski, Sawyer, Gutermann, Koenig, Rief, and Hofmann, "Psychological Treatments for Fibromyalgia."

Henschke, Ostelo, van Tulder, Vlaeyen, Morley, Assendelft, and Main, "Behavioural Treatment for Chronic Low-Back Pain."

Knittle, Maes, and Gucht, "Psychological Interventions for Rheumatoid Arthritis."

Williams, Eccleston, and Morley, "Psychological Therapies for the Management of Chronic Pain (Excluding Headache) in Adults."

Questions to Consider

1. Research has shown that distraction can be an effective way to reduce the sensation of pain. However, research also has shown that mindfulness (focusing on the pain, for example) also can be helpful in reducing pain. How is this possible? What might explain the effectiveness of each?

2. Recent neuroscience research has shown that social rejection or a romantic breakup "light up" similar brain areas as physical pain. Try applying the concepts of transduction, transmission, modulation, and perception to this sort of psychic pain. What implications would this have for psychotherapy or psychological coping in general?

Building and Deepening Relationships

Lecture 20

Many people have argued that we've evolved multilayered, complex social relationships in order to help us survive and thrive and we've developed some rather complex and nuanced rules about how those relationships should work—rules that are always evolving and only partly derived from biology. It's cliché to say that people need people and that this idea of love and attachment is, of course, the thing that music, art, literature, and movies are made of. But is it true? Can't being alone or even totally isolated be just fine? In this lecture, you will learn about the health of relationships.

Social Relationships

- In his classic studies, Harry Harlow studied maternal separation and social isolation in infant monkeys taken from their mothers. He began to systematically tease apart what it was that made infants bond to their mother. He assumed that it was food and survival.

- Harlow took infants away from their mothers and placed them in a variety of different conditions with fake mothers made of either wire or terry cloth, complete with a fake face that the infants came to recognize. The infants bonded to their "mom."

- He then wanted to see if food was the key factor or if it was touch and sensation. He put two mothers in the cage: a wire one and a cloth one. Sometimes the wire mother had a bottle connected to the food, and sometimes it was the cloth mother. In both instances, regardless of where the food was located, the infants clung to the cloth mother. They received all of their nurturance and love from touch—it wasn't just about food.

- But what about the widower who dies shortly after his wife, even though he seemed to be in fine health? What about the socially isolated elderly man who can't seem to bounce back after a

relatively mild heart attack? What about the 35,000 suicides per year involving many people who are socially isolated and depressed?

We all need at least one key relationship to help us get by in our lives.

- While true that some people are more social than others—extroversion and introversion are real—we all need relationships. We don't have to be popular, but we need at least one key relationship to help us get by in life. Not having any relationships is bad both for your mental health and your physical health.

- If relationships are so critical, then why are there so many people who are lonely? How do you assess both the quality and quantity of relationships? How can you explain a deficiency in either?

- Impairments in social functioning can come from a variety of places, but there are mainly two places that therapists should look.
    - Does the client have a skills deficit in terms of human interaction? This is derived partly from self-report but also from observation and maybe from some in-session exercises.

    - Does the patient have sufficient skills but something is blocking the use of those skills? For example, maybe social anxiety plays a part. Maybe the client knows what to do but is so anxious that he or she is not able to perform those particular skills.

- Of course, the therapist should look for other diagnoses, such as depression, or other social circumstances that cause an individual to be anxious.

Social Relationships and CBT

- Recall the layers from the cognitive model. Using the CBT triangle, you have learned to look at cognition and behavior to help you understand emotions. Starting at the top, or the surface, there are automatic thoughts and beliefs, which are responses to an activating event.

- Below that we have rules or conditional assumptions, such as if-then statements. Beneath those rules we have core beliefs—those irrational, deeply held beliefs about ourselves, our world, and the people around us. And related to that are our values—what matters most and why.

- In terms of beliefs, we can often boil things down to lovability and achievement. The primary driver of avoidance is safety behaviors, which are in-the-moment behaviors that provide comfort but prevent the person from doing what he or she needs or wants to do.

- For anxiety, we can do somatic quieting, an ABCD exercise, and a thought record as well as talk about exposures. We can create a SUDS (subjective units of distress) hierarchy, in which the patient starts at the bottom of his or her hierarchy and works up. We can also target interfering factors—cognitions and behaviors. But having skills and tamping down anxiety isn't enough to create new relationships. How can we move the patient forward?

- In terms of personality, there are a number of conceptually sound measures of introversion and extroversion. The Myers-Briggs Type Indicator is probably the most common measure that looks at introversion and extroversion, among a number of other things. Introversion indicates a preference, not an ability, and it doesn't prevent an individual from having meaningful social relationships.

Social Support Networks

- Social support has been conceptualized in a number of different ways. In fact, it's a notoriously slippery concept to define and even more difficult to measure. The common definition of social support is that it is the perception that one is cared for, has assistance available from other people, and that one is part of a supportive social network.

- Research studies use the term "social support," but terms such as "social integration," "social connectedness," and "social support networks" are also used. Each is a slightly different angle on this complex and difficult-to-measure idea.

- A structural characteristic of an individual's social support network is its size. Other characteristics include the density and the distance. Are all your friends gathered locally in the same geographic area, or are they dispersed around the country or even the world? What is the diversity of individuals? Do they all have approximately the same age, same gender, and same background—or is there a wider range? Another characteristic is level of reciprocity. Does the individual always give support but receive less, or vice versa? Additionally, does the social support network go beyond an inner circle of familial relationships?

- We might also want to look at some of the functional characteristics of an individual's social support network. Does the individual receive emotional support? Does he or she receive informational support? Does the individual have friends that can give him or her advice or help him or her work through problems? Does an individual receive tangible or practical support? Does the person have someone who can help him or her with dinner, pay the mortgage, or drive him or her to a doctor's appointment? Does the person have someone who can provide companionship or belonging?

- Another key feature to keep in mind as you're doing a social support assessment is the idea of perceived versus actual. We can look at actual indicators of social support—such as density, shape, structure, and function—but it's really an individual's perception of his or her social support and the quality that he or she receives that is most important.

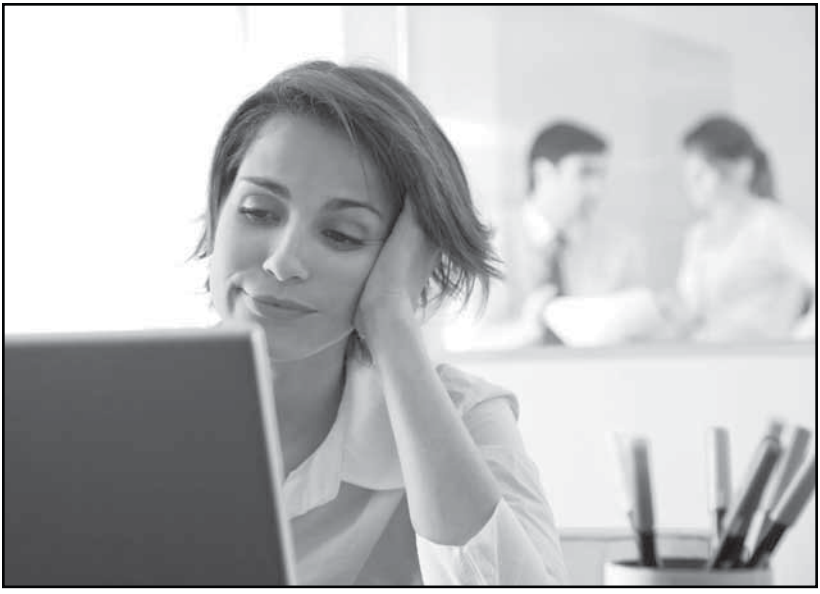
- We also want to look at whether the individual is giving or receiving support and whether that seems to be balanced. Sources of support might include significant others or family and friends. Even though you might see greater levels of intimacy in romantic relationships, this doesn't have to be the case. Emotional closeness is often about shared life experiences, so it could certainly be platonic.

- In a social support assessment exercise called a circle diagram, the patient fills in the names of his or her sister, brother, and friends. Then, he or she starts to think about how to rank or qualify the level of intimacy with each of those individuals.

- After the exercise, we might learn that the patient is not completely isolated and has been close to family and friends before, but it takes him or her a long time to feel comfortable with someone. The patient might not reach out to social supports or nurture those relationships, but he or she might want both more quality and quantity in his or her social support network.

- How do we address quantity, or adding new people to your social network? What is the right size for a social network? Does it really become difficult to form new relationships as you grow older?

- There is a recent phenomenon of online social networks and the use of platforms like Facebook in order to connect to other individuals. Could we consider this a source of social support? Do online social networks fill in the gaps, if we have gaps from our personal relationships?



The quality of social support recieved on social media websites is inferior to that of in-person relationships.

- A study done by Jonathon Cummings at Carnegie Mellon University looked at both bankers and college students that were using the Internet, the phone, and in-person meetings to connect with others and then compared the quality of those meetings and perceived social support. The study showed that even though people enjoy things like Facebook, the quality of social support the subjects received was inferior to that of in-person relationships.

- When we look at the types of support we receive, we want to ensure that an individual has adequate amounts of each type of support: informational, practical, emotional, and companionate support. It's the support needer's responsibility to know what kind of support he or she needs and then to go to the right person to ask for that support. Specify what you need, and speak up if you aren't getting what you want.

Growing One's Social Network

- How might a patient grow his or her network? First, he or she needs to identify a target. Is it someone who was already on the circle diagram and the patient just wants to pull him or her into an inner circle and improve intimacy? Or does the patient want to meet new people entirely? The patient probably wants to do a little bit of both.

- We want to set expectations, and we want the patient to have a system of how he or she can capture even tiny steps forward—this isn't something that changes overnight, or even over a few weeks. We want the patient to keep a success diary, because we can predict that he or she might get discouraged that the progress is not going quickly enough.

- Social support networks don't have to be composed just of humans. For example, a study conducted by Erika Friedmann and published in 1995 in the *American Journal of Cardiology* analyzed individuals who had suffered a myocardial infarction, or heart attack, and who owned a dog versus those who didn't own a dog. The study also analyzed those who had human social supports versus those who didn't. In both cases of dogs and humans, the social support was important and helped increase rates of survival.

Suggested Reading

Butler, *Overcoming Social Anxiety and Shyness*, p. 226–233.

Friedmann and Thomas, "Pet Ownership, Social Support, and One-Year Survival after Acute Myocardial Infarction in the Cardiac Arrhythmia Suppression Trial (CAST)."

Hendrix, *Getting the Love You Want*.

Langer and Rodin, "The Effects of Choice and Enhanced Personal Responsibility for the Aged."

Mitchell, Powell, Blumenthal, Norten, Ironson, Pitula, et al, "A Short Social Support Measure for Patients Recovering from Myocardial Infarction."

Shklovski, Kraut, and Cummings, "Keeping in Touch by Technology."

Questions to Consider

1. Complete the structural and functional social support exercise described in the lecture (using the concentric circles figure). Do you need to work on the quantity or quality of your network? If relevant, set some SMART goals.

2. Who do you support? What kind(s) of support are you best at providing? Consider at least one concrete way in which you can improve your role as a support provider.

Constructive Conflict and Fighting Fair

Lecture 21

Up to this point in the course, our CBT examples have been nearly all dyadic: one patient and one therapist as a pair. We "step outside" of the therapy office by having the patient do homework in the real world that involves other people. The patient then reports back the next session, and we do problem solving and make adjustments to our treatment plan if necessary. But if the issue resides within a couple or family, then everyone might need to be in the room. In this lecture, you will learn about couples CBT.

Couples CBT

- Couples CBT works on many of the same issues that any type of couples therapy most likely wants to address, including communication (especially miscommunication and its role in conflict), empathy (emotional understanding and respect for each member of the couple and why it sometimes waxes and wanes over time), intimacy (emotional closeness), and expressed affection (either directly or implicitly). Of course, some of the foundations of any relationship will be addressed, such as trust and acceptance or, if a transgression has occurred, forgiveness.

- There are some important differences between individual CBT and couples CBT. First, with couples CBT, the cognitions that you work on are "hot," meaning that therapy doesn't just involve doing an ABCD exercise about an event that happened out in the world—sometimes the activating event is the session itself, so those cognitions are happening in the room and coming out in the moment. It makes the cognitions a little more difficult and challenging to work with but possibly more fruitful.

- Couples CBT is also a little more difficult to predict. It's easier to make a formulation for one person than for two people, but with a couple, the whole is greater than the sum of the parts. It's not

just two people together; it's also the chemistry between those two individuals. Therefore, the work becomes much more complex, and the conceptualizations can be a lot trickier.

- Furthermore, we'll still work on SMART goals, but it's not just the goals of one individual—it's the goals of two individuals. We would hope that those goals overlap a fair amount within a couple, but sometimes those goals might be diametrically opposed.

Assessing Relationship Dynamics

- When assessing relationship dynamics, think of relationships as a potent trigger for automatic thoughts and emotions. Just as we have habits of mind, we have so-called habits of the heart. We develop our own romantic, or emotional, or intimate style.

In couples CBT, sometimes the activating event is the session itself, so the cognitions that need to be worked on are happening in the room and coming out in the moment, making the cognitions more challenging to work with but possibly more fruitful.

- We know that some people, when angry or upset, will withdraw and become very quiet. Some people might have the opposite style. Others might have a tendency to feel rejected even when rejection wasn't the intent. Others, when angry, might become passive-aggressive. Others might become competitive or even aggressive.

- But it's about the chemistry—it's about the interaction of those two different kinds of habits of the heart that we will see in action when we're doing couples CBT.

- When assessing a couple, a therapist might already have a formulation for a husband, for example, but wants to see if it holds true when his wife is also around. How does he communicate with her? What are his nonverbals? What is her style? What is the level of tension that is between them, and what is the level of their emotional intimacy?

- How do you assess the couple? We've learned from individual CBT that there are a number of different assessment methodologies, including semi-structured interviews and questionnaires. We would want to have a similar process for the couple.

- In a clinical setting, when assessing two individuals, we usually want to look for something called triangulation, where we take multiple sources of data and see where they overlap or where they don't overlap.
    - First, we would give individual self-report surveys to each person to fill out independently, not to share with the other person. The self-reports would often include the perceptions of how things are going in the relationship now versus how they would like them to be.

    - Second, we would interview each member of the couple separately. Sometimes without the other person in the room, one person might feel that he or she has more freedom to express his or her feelings or desires and the challenges that they might be facing as a couple.

- Third, we would bring the couple together and interview them together so that we can observe the chemistry between them and how they interact with one another. Regardless of whether or not the sources of data overlap or don't overlap, it's instructive either way. From the data, we can develop a working formulation of how to best help the couple.

- There are a few examples of assessment tools for couples that are freely available online. The first, called the Relationship Closeness Inventory, was created by Ellen Berscheid and measures interdependence with three scales: frequency of intimacy, diversity of connection, and strength of connection.

- Another commonly used instrument that is used in religious or non-secular counseling is called the PREPARE/ENRICH couples assessment tool. It is often used as a way to prepare individuals who are considering becoming married. It is an online assessment tool that looks at strengths, conflict, family or origin, etc. Then, the couple is paired with a counselor.

- The next tool is the Experiences in Close Relationships questionnaire, which is a 36-item self-report attachment measure developed by R. Chris Fraley, Niels G. Waller, and Kelly A. Brennan. It yields scores on two subscales: avoidance (discomfort with closeness and discomfort with depending on others—which is certainly important for intimacy, or lack thereof) and anxiety (fear of rejection and abandonment).

Communication and Miscommunication

- Before we get into negotiating conflict, therapists can use a positive psychology exercise in which each person shares what he or she likes about the other person. We can ask the couple to engage in a simple behavioral intervention to do positive activities together, tabling conflict and enjoying one another for a week, for example.

- We start with a simple behavioral intervention, and the attention shifts in the direction of positive emotion. We want to create a bit of a cushion before digging into the conflicts the couple has.

- Before moving into conflict, we might need to look at communication: What is the current state of the couple's communication style or communication chemistry with one another? We use the usual processes to evaluate communication, such as self-report surveys, individual interviews, conjoint interviews, reports from others, or even observations that we do in the therapy session.

- One of the most commonly used communication skills tests is the Interpersonal Communication Skills Test, which has a number of different scales that help us better understand our strengths and our weaknesses in communicating with others. These scales include the following.
  - Insightfulness: the ability to understand other people's words and intentions.
  - Verbal expression: the ability to express yourself in a way that is clear, concise, and effective.
  - Assertiveness: the ability to express your opinions and ideas.
  - Listening skills: the ability to take turns and listen appropriately to others during conversation.
  - Emotional management: the ability to control your own emotions in conversation and the ability to properly respond to others' emotions.

- This questionnaire has 25 items that are rated on a scale of 1 to 5. Some of these items are the following.
  - I manage to express my ideas clearly.
  - I find it easy to see things from someone else's point of view.

- People don't get what I am saying.
- I have difficulty putting my thoughts into words.
- I tend to postpone or avoid discussing touchy subjects.

- Miscommunication occurs commonly, and often there might be a gender issue—there are dramatic differences in the way that men and women communicate. For example, men spend approximately two-thirds of social conversations talking about themselves. Men are less likely to pick up on emotional cues and are less likely to take turns or give "openings" to others. In conversation, men tend to report, and women tend to engage in rapport talk.

- These are just two different styles of communication. The point is not to harshly criticize men. But there are pros and cons to each style. And of course, different kinds of conflict might emerge from those styles.

Conflict Management

- The most common sources of conflict for couples are money, sex, kids, and religion. But, of course, couples might have conflicts about just about anything.

- In addition to the emotional and biological components (anger and resentment), we want to look at some of the cognitive elements. What memories are activated during conflict, and what are the other conflicts that are brought up? What is the subjective interpretation of the events? What are the beliefs about the relationship or conflict in general?

- There are also behavioral elements when it comes to conflict. Does one of the pair of people withdraw during or after conflict? Does one of them ruminate over the conflict?

- The DESC (describe, emote, specify, consequences) method is a simple structured approach to describing conflict and going on to resolve it. It is a straightforward method that seeks to improve marital satisfaction and decrease conflict.

- There have been a few exemplary studies that have studied cognitive behavioral marital therapy—one from 1995 by Ryan Dunn and Andrew Schwebel and a meta-analysis from 2005 by Nathan Wood and colleagues. These studies found that cognitive behavioral conflict resolution skills in the context of couples therapy are indeed effective. But when researchers tried to determine whether there was a specific type or subtype of CBT that was most effective, they didn't find a difference. Across the board, couples CBT seemed to be equally effective.

Suggested Reading

Brennan, Clark, and Shaver, "Self-Report Measurement of Adult Romantic Attachment."

Epstein and Baucom, *Enhanced Cognitive-Behavioral Therapy for Couples*.

Gottman and Silver, *The 7 Principles for Making Marriage Work*.

Hendrix, *Getting the Love You Want*.

Questions to Consider

1. Many claim that history repeats itself and that we are compelled to repeat the relationship patterns of our family of origin. Do you see a kernel of truth to this belief in your own relationship? Have you worked to make sure that you don't repeat your parents' "mistakes"?

2. Expressions of intimacy are often highly influenced by culture. Some cultures are very demonstrative while others are subtler. How do you express intimacy or a desire for more intimacy? How can you be sure that your signals are correctly interpreted?

Thriving at Work through Behavioral Health

Lecture 22

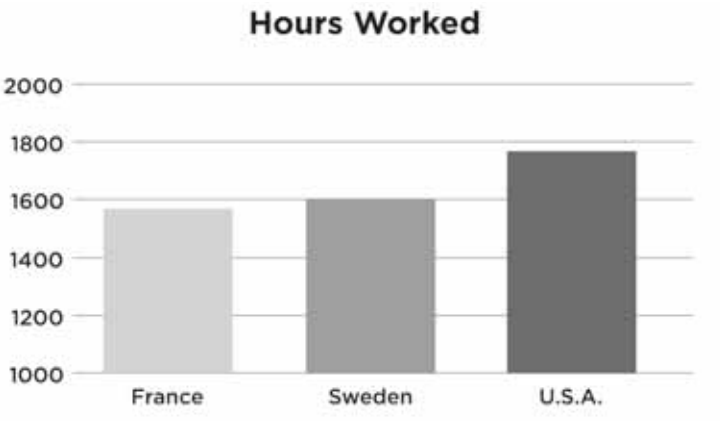
The average American spends nearly 100,000 hours at work during his or her lifetime. U.S. workers currently put in around 1,800 hours per year, much more than our European counterparts. Professional burnout is at an all-time high, but no end is in sight. In this lecture, as we prepare to define, measure, and maybe even improve occupational functioning, it's important to recognize that many of the core ingredients—concentration, motivation, emotional management, communication, or even assertiveness—are relevant at both work and home and have close ties to CBT.

Self-Help for Success

- Over the past several decades, we've seen a big shift from manufacturing to white-collar service jobs, with particularly large growth in health care and technology. And while we've seen a lot of national economic growth, salary growth has been relatively flat for middle- and lower-class jobs, necessitating longer hours and sometimes second jobs.

- Some of the consequences include the fact that 30 percent of U.S. workers are often or always under stress at work. Work stress has increased nearly 300 percent since 1995. About 40 percent of missed work is due to stress, and about 80 percent of job accidents are stress related. Problems at work are more strongly associated with health complaints than are any other life stressor—more so than even financial problems or family problems.

- And yet we keep plugging along. In fact, some people, or many, find a way to be successful. What skills or abilities led to that success? That question has fueled a good chunk of the self-help industry for years, with the best example being Steven Covey's book *The 7 Habits of Highly Effective People*, published in 1989.



- The first three of the seven habits are related to a category Covey calls independence while the next three habits are related to interdependence and the last habit falls under the category of continuous improvements. The seven habits are as follows.
  1. Be proactive: Realize that your decisions are the primary determining factor for effectiveness in your life. Take responsibility for your choices and the consequences.

  2. Begin with the end in mind: Self-discover and clarify your deeply important character values and life goals. Envision the ideal characteristics for each of your various roles and relationships in life.

  3. Put first things first: A manager must manage his or her own person. Managers should implement activities that aim to reach the second habit.

  4. Think win-win: Have genuine feelings for mutually beneficial solutions or agreements in your relationships. Value and respect people by understanding that a "win" for all is ultimately a better long-term resolution.

5. Seek first to understand, then to be understood: Use empathic listening to be genuinely influenced by a person, which compels them to reciprocate the listening and take an open mind to being influenced by you. This creates an atmosphere of caring and positive problem solving.

6. Synergize: Combine the strengths of people through positive teamwork to achieve goals no one person could have done alone.

7. Sharpen the saw: Balance and renew your resources, energy, and health to create a sustainable, long-term, effective lifestyle. It primarily emphasizes exercise for physical renewal, prayer (meditation, yoga, etc.), and good reading for mental renewal. It also mentions service to society for spiritual renewal.

- Another book, written in 1936, is Dale Carnegie's classic *How to Win Friends and Influence People*, which has now sold more than 15 million copies. In the book, Carnegie gives us six ways to "make people like you." The six ways are as follows.
  1. Become genuinely interested in other people.

  2. Smile.

  3. Remember that a person's name is, to that person, the sweetest and most important sound in any language.

  4. Be a good listener. Encourage others to talk about themselves.

  5. Talk in terms of the other person's interest.

  6. Make the other person feel important—and do it sincerely.

Predictors of Success

- What are the predictors of success? Is it raw intelligence? Is it professional knowledge? Education? Income? Is it having connections, ambition, or drive? Is it just sort of rolling up your sleeves and working really hard?

- Before we can answer that question, we have to decide what success means. Is success money, advancement, prestige, status, growth, or satisfaction? It's a fairly personal issue with no correct answer. And there are some interesting findings from the business literature that shows us that objective measures of success—such as how much money you make and whether you get promoted—are often different from subjective measures of success, such as personal satisfaction with your career.

- Let's take a middle-of-the-road perspective and assume that success isn't about making millions of dollars or about being the CEO of a company but that it does include advancement, recognition, compensation, and constructive relationships with peers, bosses, and/or supervisors. And it includes a reasonable level of satisfaction and contentment. What do you need to get there?

- A 2006 study by Accenture of 251 executives in six countries concluded that while intelligence is important for career success, it's a matter of how you are smart. Interpersonal confidence, self-awareness, and social awareness—all elements of a broader construct of emotional intelligence—are better predictors of who will succeed and who won't.

- Social intelligence and emotional intelligence overlap. Social intelligence is defined as the capacity to effectively negotiate complex social relationships and environments. It includes skills in social perception, psychology, social dynamics, and behavioral skills—communication strategies, actions, and conflict resolution.

- Although this might seem like a new construct, Edward Thorndike was the first to coin the term "social intelligence" in the 1920s, and Howard Gardner's theory of multiple intelligences, which came out in 1983, also used the term.

- Can you cultivate social intelligence? Initial studies of children have been successful in teaching socioemotional skills—listening, asserting oneself, cooperating, or apologizing. These can be taught indirectly (on the playground, for example), or they can be integrated into curricula.

Socioemotional skills can be taught to children indirectly or integrated into curricula.

- But what about at work? What about for adults with decades of social habits that may or may not be so socially intelligent? There have been a number of different studies on this subject, and the findings are somewhat mixed when it comes to social intelligence as a global construct. It's more encouraging when you look at specific subskills, such as communication, conflict resolution, or time management.

Occupational Stress

- Just as people have core beliefs or conditional assumptions in the CBT sense, businesses have mission statements. They may articulate values. But even more important than what is written down is what is actually done. What are their business practices? How are the employees treated? How are problems solved?

- Just as we collect stories for a person to create a case formulation, a business consultant will collect stories about a business to create a formulation of that organization's culture. This would include the health of the organization but also the contributing or detracting factors.

- One of the biggest warning signs is occupational stress and professional burnout among employees. Occupational stress is defined as the experience of stress that is caused by work.

- Stress can include biological factors as well as emotional, behavioral, and cognitive ones. A stressor—in this case, an occupational stressor—can be anything real or imagined that sets off a whole chain of events. It's not just about the external situation; it's also about our primary and secondary appraisals.

- The National Institute for Occupational Safety and Health tells us that human health and social work employees are at greatest risk for occupational stress and burnout. Accountants and bookkeepers have extraordinarily high rates. Individuals who work the night shift, on weekends, or overtime also have very high rates.

- There are some common factors that are related to occupational stress across various jobs, including work demands, hostility, changes in expectations, and downsizing. In addition, occupational stress could result if an employee has a perceived lack of control with high job demand and high job strain coupled with low reward.

- Some of the protective factors are whether an individual has high perceived control, whether his or her level of reward is increased to match the level of demand (how hard he or she is working), whether there is a social status attached to the job, and whether he or she is able to derive a personal sense of meaning or purpose from it.

Measuring and Combating Occupational Stress

- How do you measure stress in the workplace? We can use the same kinds of processes that we use with individuals, such as interviews or online measures. We could also use objective data, such as staff turnover, satisfaction surveys of employees, financial indicators, or even human resources complaints.

- What are the ways to combat stress? We can make simple environmental changes to create a more comfortable workplace in terms of light, temperature, noise, space, or privacy. We can decrease ambiguity by being very clear about job descriptions and making things very predictable. We can move toward the direction of shared decision making so that the workplace doesn't feel dogmatic or autocratic. We can facilitate social relationships and offer rewards for good work.

The Top 10 Most Stressful Jobs

1. Enlisted soldier
2. Firefighter
3. Airline pilot
4. Air traffic controller
5. Police officer
6. Event coordinator
7. Inner-city school teacher
8. Taxi driver
9. Customer service operator
10. Emergency medical technician

- We might also use some CBT exercises. We could use cognitive skills to induce positive emotions. We could look at positive appraisals. We could also help people recalibrate their perspective and search for meaning.

- What are some of the ways to combat burnout, when the stress has become so chronic or severe that people feel that they can't necessarily recover? Probably the best intervention is to take a long vacation away from work. Other interventions include having a change in job description, experiencing a reengagement with sources of meaning (either at work or outside of work), and working on some stress-management skills to achieve a better work-life balance.

Suggested Reading

Carnegie, *How to Win Friends and Influence People*.

Covey, *The 7 Habits of Highly Effective People*.

Judge, Cable, Boudreau, and Bretz Jr., "An Empirical Investigation of the Predictors of Executive Career Success."

Maslach, *The Truth about Burnout*.

O'Boyle, Humphrey, Pollack, Hawver, and Story, "The Relation Between Emotional Intelligence and Job Performance."

Questions to Consider

1. Consider your model of social intelligence. What does it include? Can it be taught? Is it different from emotional intelligence? What do you think predicts high social intelligence?

2. How does the widening gap between rich and poor in the United States impact occupational stress? Is occupational stress also becoming unequally shared? What might we do about it?

Developing Emotional Flexibility

Lecture 23

In this lecture, you will learn about the construct of resilience—which is succeeding, maybe even thriving, in the face of adversity—and the frequent companion of resilience, flexibility. You will discover what the literature tells us about these two constructs and explore how we might use CBT tools to promote both flexibility and resilience. You also will learn about the general factors that predict resilience, and you will be exposed to research on cognitive styles and positive emotion.

Resilience

- There are a few different definitions of resilience. Resilience is defined as when a powerful biologic and/or environmental diathesis or risk factors do not produce the expected negative outcome—high subjective well-being, even in the presence of adversity. Another definition of resilience is the ability to negotiate significant challenges to development yet consistently "snap back" in order to complete the most important developmental tasks that confront people as they grow.

- In a qualitative study done by Gina Higgins and published in her book *Resilient Adults*, she interviewed 40 adults who had been abused as children but had gone on to be successful and have a self-reported high quality of life as adults. She wanted to deduce from those interviews some of the common features that helped those individuals be so resilient.

- She found that these individuals used resilience as a developing phenomenon propelled by vision and stamina—a belief in control, freedom, and change. There was a focus on strength, ability, and pro-action. They were able to establish what she called a place of refuge. She saw that their resilience waxed and waned over time, and she encourages us not to "overlook the phoenix for the ashes."

- Other quantitative studies of resilience have found similar features. In terms of the environment, studies have shown that having enriched environments, a supportive adult or parental surrogate, or some place of refuge was important for resilience.

- In the category of cognitive or personality factors, some predictors of resilience include having an optimistic style, a flexible cognitive style, high affect or emotion regulation skills, and an affectionate or outgoing temperament (which is more effective in eliciting social support from other individuals).

- A primary factor in resilience is having positive relationships, either inside or outside one's family. In fact, it's probably the single most critical means of handling both ordinary and extraordinary levels of stress. These positive relationships include traits such as mutual trust, reciprocal support, and caring.

- There are also a number of CBT skills that might help an individual develop and sustain his or her resilience, including the ability to make realistic plans and follow through with them, having a positive self-concept, and confidence in one's strength and ability. It is also important to have communication and problem-solving skills, as well as the ability to manage strong impulses and feelings.

- Other elements of resilience fall into the cognitive and emotional styles category. The attributional or explanatory style is a cognitive style from the seminal work of Martin Seligman, who started with animal studies in the 1960s and 1970s and then moved on to human studies.

- The explanatory style essentially tells us that we have habits in how we explain why events occur. Seligman believed that the explanatory style has three key dimensions: internal, stable, and global. The explanatory style is particularly important in explaining achievement and also with its relationship to depression.

- Individuals who explain negative events with an internal, stable, and global style—it's my fault, it's never going to change, and it's going to affect all areas of my life—are the individuals who are less likely to pick themselves up and continue pushing forward. They are the ones who are more likely to become more depressed.

- An important outgrowth of the work of the explanatory style is the Penn Resilience Project, a CBT program to teach kids from inner-city Philadelphia schools how to have more optimistic explanatory styles. The goal was to make them more resilient to stressors in their home life as well as to prevent possible depression in the future.

- A meta-analysis of 17 Penn Resiliency Program studies showed that the interventions significantly reduced and prevented depressive symptoms over time. However, it's not clear if the Penn Resiliency Program has an enhanced effect among children who experience adversity (compared to peers who experience lower or no adversity). This would be a necessary criterion to support claims of promoting resilience, given definitions of resilience as doing well despite risk or adversity.

- Another cognitive style, or really emotional style, is positive emotion. While some research indicates that psychological resilience is a relatively stable personality trait, new research suggests that positive emotions are critical to the trait of resilience. This is not to say that positive emotions are merely a by-product of resilience but, rather, that feeling positive emotions during stressful experiences might have adaptive benefits in the coping process of the individual.

- Empirical evidence for this prediction arises from research on resilient individuals who have a propensity for coping strategies that concretely elicit positive emotions, such as benefit-finding and cognitive reappraisal, humor, optimism, and goal-directed problem-focused coping. Individuals who tend to approach problems with these methods of coping might strengthen their resistance to stress by allocating more access to these positive emotional resources.

- Judith Moskowitz studied individuals who were newly diagnosed with HIV and parents who were caring for sick children and found that if she was able to induce positive emotions, it essentially gave them more of a reservoir to cope with the stressful and negative times ahead.

- Barbara Fredrickson taught us that positive emotions are there to broaden and build. They help to broaden our cognitive repertoire and build important social relationships that will help us be more resilient in the future.

- A study by Anthony Ong and colleagues in 2006 looked at widows and positive emotion. They found that widows with high levels of resilience experienced more positive and negative emotions than those with lower levels of resilience. The former group shows high emotional complexity, which is the capacity to maintain the differentiation of positive and negative emotional states while undergoing stress. These researchers further suggested that the adaptive consequence of resilience is a function of an increase in emotional complexity while stress is present.

- By examining people's emotional responses to the September 11th attacks, Barbara Fredrickson and colleagues suggested in 2003 that positive emotions were critical elements in resilience and served as a mediator that buffered people from depression after the crisis. Moreover, they showed that highly resilient people were more likely to notice positive meanings within the problems they faced (for example, feeling grateful to be alive), endured fewer depressive symptoms, and experienced more positive emotions than people with low resilience.

Flexibility and Resilience

- Cognitive flexibility has been described as the mental ability to switch between thinking about two different concepts and to think about multiple concepts simultaneously. Despite some

disagreement in the literature about how to operationally define the term, one commonality is that cognitive flexibility is a component of executive functioning.

- Research on flexibility has primarily been conducted with children at the school age. However, individual differences in cognitive flexibility are apparent across the lifespan. Measures for cognitive flexibility include the A-not-B task, the dimensional change card-sorting task, the multiple classification card-sorting task, the Wisconsin card-sorting task, and the Stroop test.

- Cognitive flexibility also has implications both inside and outside of the classroom. A person's ability to switch between modes of thought and to simultaneously think about multiple concepts has been shown to be a vital component of learning and problem solving.

- There are many types and definitions of cognitive flexibility. Philip Tetlock developed a concept called integrative complexity, which is defined as the degree to which thinking and reasoning involve the recognition and integration of multiple perspectives and possibilities and their interrelated contingencies. Essentially, when an individual talks about a challenging or charged topic, is he or she able to see both sides of the coin and discuss the nuances of the topic?

- Attributional or explanatory flexibility is related to the explanatory style. The idea with the explanatory style is that a person has a habit of explaining things in a certain way, so it essentially looks at how strong the habit is. If you explain 10 different events, are they essentially the same kinds of explanations, or do you tend to move or flex depending on the situation?

- To measure attributional flexibility, the standard deviation of an individual's explanatory style scores is analyzed. The greater the standard deviation, the greater the person's attributional flexibility.

- A set of studies conducted by David Fresco and colleagues analyzed attributional flexibility in college students and found that students who were more flexible could be more resilient to stressful events that occurred and were less likely to get depressed.

CBT and Resilience

- CBT can be helpful for resilience in terms of generating positive emotions. It teaches us to reappraise attributions and, potentially, explanations. It gives us general cognitive restructuring skills and teaches us to be more cognitively flexible, or maybe more integratively complex.

- A recent report by the American Psychological Association offers the following 10 ways to build resilience.
  1. Maintain good relationships with close family members, friends, and others.
  2. Avoid seeing crises or stressful events as unbearable problems.
  3. Accept circumstances that cannot be changed.
  4. Develop realistic goals and move toward them.
  5. Take decisive actions in adverse situations.
  6. Look for opportunities of self-discovery after a struggle with loss.
  7. Develop self-confidence.
  8. Keep a long-term perspective and consider the stressful event in a broader context.
  9. Maintain a hopeful outlook, expecting good things and visualizing what is wished.

10. Take care of one's mind and body, exercising regularly, paying attention to one's own needs and feelings.

Suggested Reading

Bonanno, Galea, Bucciareli, and Vlahov, "What Predicts Psychological Resilience after Disaster?"

Brunwasser, Gillham, and Kim, "A Meta-Analytic Review of the Penn Resiliency Program's Effect on Depressive Symptoms."

Diener, Suh, Lucas, and Smith, "Subjective Well-Being."

Fredrickson, Tugade, Waugh, and Larkin, "A Prospective Study of Resilience and Emotions following the Terrorist Attacks on the United States on September 11th, 2001."

Fredrickson and Branigan, "Positive Emotions Broaden the Scope of Attention and Thought-Action Repertoires."

Fresco, Rytwinski, and Craighead, "Explanatory Flexibility and Negative Life Events Interact to Predict Depression Symptoms."

O'Connell Higgins, *Resilient Adults*.

Ong, Bergeman, Bisconti, and Wallace, "Psychological Resilience, Positive Emotions, and Successful Adaptation to Stress in Later Life."

Reivich and Shatte, *The Resilience Factor*.

Robertson, *Build Your Resilience*.

Seligman, *Learned Optimism*.

Singer and Ryff, "Hierarchies of Life Histories and Associated Health Risks."

Tugade and Fredrickson, "Resilient Individuals Use Positive Emotions to Bounce Back from Negative Emotional Experiences."

Waugh, Thompson, and Gotlib, "Flexible Emotional Responsiveness in Trait Resilience."

Werner, "The Value of Applied Research for Head Start."

Questions to Consider

1. Does developing a mental illness or psychological symptoms necessarily mean that you lack resilience or flexibility? Can you be resilient and flawed or ill?

2. Is there a way to promote resilience before an anticipated trauma occurs (for example, military combat, living in a violent neighborhood, etc.)? Would anticipation make the event more or less traumatic?

Finding the Best Help

Lecture 24

This final lecture will tackle the questions of when you or a loved one should seek help and how to go about it getting it. As you will learn, there are many levels of care and many pathways to finding help. There's no one right way. Nonetheless, finding help can still be overwhelming and confusing, so this lecture will review general guidelines and help you through the process of searching for and selecting a therapist for your mental health needs.

When and How to Seek Help

- Do you think that you or someone you love might need therapy? How can you decide? There's no clear-cut threshold or rule, but there are several guiding principles.
    - Are you suffering? Most people seek help when they're suffering the most. We look at intensity and duration. This doesn't have to be a mental illness, but maybe it's above and beyond what an individual is used to coping with.
    - Do you feel stuck? Have you made multiple attempts but failed to make the changes that you need to make in a high-stakes situation?
    - Has your level of social or occupational functioning been changed? Has it declined and you have not been able to pull it back up?
    - What is your quality of life? Is it not what you want it to be, or has it dropped suddenly or precipitously?
    - Are you trying to make a decision? Maybe you are wrestling with a big decision and have talked with friends and family, but it might be helpful to talk with an objective, emotionally uninvolved professional who could help you weigh the options.

- Are you trying to build some new skills and maybe you need a workspace or rehearsal space where you can work with an objective professional to build those new skills and get some direct feedback?

- There are other important reasons to seek therapy, such as having a psychiatric illness, but even then, it depends on the severity of symptoms. We're especially concerned about safety or issues of harm. Personal growth, insight, and evolving as a human being are all good reasons to seek therapy, but there are a number of important concerns that yield fairly typical and understandable ambivalence.

- Some of the practical considerations for therapy include the cost and the time involved in psychotherapy, the availability of quality service, privacy issues or concerns, concerns about the stigma of seeking out a psychotherapist, the potential for harm (fear of things getting worse) if you talk with a therapist, prior family or personal history of psychotherapy, denial, and readiness.

- There is a continuum of treatment modalities, where at one end you see a problem, have suffering, and need to make a decision, so you try to do it on your own. It's certainly more private and less expensive than therapy, but it might be difficult to find the motivation, and if you're stuck in a rut, you're probably going to see the same problem in the same way and not be able to bring in new perspectives.

- You might use basic self-help, so you might buy a self-help book or visit websites. In addition, there are online classes, seminars, and videos. There are technology-enhanced self-help programs. There are other physical and mental wellness programs, such as yoga, meditation, or exercise.

- Continuing along the continuum, you might reach out to some of your social supports (nonprofessionals). This is a little less private, but you're going to feel more connected to someone else, and you're going to get a different perspective and maybe some more motivation.

- Further along the continuum, you might reach out to other family and friends for their advice, problem-solving skills, and support.

- Past that are the peer-peer programs, such as 12-step programs or support groups. Although this does not involve a trained mental health professional, there are other people—maybe outside of your social support network—that will give you a richer and more diverse perspective.

- Furthermore, you might decide to take in-person classes or seminars.

- The other end of the continuum is seeking professional help. Even within this category, you might decide to first talk to a primary care provider, religious or spiritual counselor, or psychologist or psychiatrist. You need to make decisions about how long you're willing to invest in therapy as well as what modality—individual, couples, or family therapy—and what theoretical orientation—CBT, psychodynamics, or first-, second-, or third-wave therapies—would work best for you. In addition, medications might be available at any point, so that also would be part of your decision-making process.

- In reality, most people try something on their own first. Sometimes it works; sometimes it doesn't. People might try some self-help strategies, religious or spiritual counseling, or videos, the Internet, or television.

Self-Help

- There are many types of self-help, including books, videos, websites, and smartphone apps. Keep in mind that many of these are written with a for-profit motive, so be careful to avoid fads and programs that are not based on evidence.

- There are some quality indicators you want to look for. Don't focus on sales volume or press coverage. Look for academic affiliations and credentials of the author. You might want to look for awards, such as the Book of Merit Award, which is awarded

by the Association for Behavioral and Cognitive Therapies. There is also a helpful series put out by Oxford University Press called *TreatmentsThatWork*.

- Adherence and motivation are usually the Achilles' heel of self-help, even if a quality resource is found. When you go to a therapist, there's more accountability and extrinsic motivation. Plus, you have an individual who asks probing questions to help you create a case formulation, develop SMART goals, and make course corrections over time if things aren't working out.

Some smartphone apps encourage adherence to self-help by issuing alerts and reminders.

- Some websites and smartphone apps try to mitigate the adherence issue by using automated reminders and text messages or by setting up incentives or penalties. They're getting better, but they're still somewhat all-or-none, one-size-fits-all systems.

Seeking Professional Help

- Maybe you've tried self-help and weren't happy with the results, or maybe you want to go straight to a professional for help. How should you begin your search? You want to go back to your reason for seeking help, but you need to get more concrete and specific.

- What symptoms do you find most troublesome—depression, anxiety, concentration, drinking too much, marital conflict? Narrowing your focus will help you search for evidence-based treatments, which is the most important starting point.

- How do you find a therapist? It's fairly straightforward. Google evidence-based psychotherapy for whatever your issue might be—depression, anxiety, or marital conflict, for example. A number of different websites as well as academic articles and books will come up that describe the evidence behind a particular kind of therapy for the disease or condition you're interested in.

- There are also a few general resource websites that have summaries about evidence-based practices, including the American Psychological Association, the Association for Behavioral and Cognitive Therapies, and the National Registry of Evidence-Based Practices and Programs (sponsored by the federal government's Substance Abuse and Mental Health Services Administration).

- Some of the therapies that you find might include CBT, CBT-I (for insomnia), and TF-CBT (trauma-focused CBT). Many of them will include such tools as cognitive restructuring (the ABCD exercise and dysfunctional thought records), behavioral activation, behavioral rehearsals, behavioral experiments, self-monitoring, goal setting, and action planning.

- You might learn more about some of the third-wave therapies and particularly about acceptance and commitment therapy (ACT) or mindfulness-based cognitive therapy (MBCT). There are also special therapies designed for treatment of substance use and support of families, including the community reinforcement approach (CRA) and the community reinforcement approach and family training (CRAFT).

- Most psychotherapies, regardless of their theoretical orientation, have nonspecific, or common, factors that can be healing, including a therapeutic alliance, empathy or unconditional positive regard, education or persuasion, a safe and healing setting, and the promotion of insight and emotional learning. All of these things are important, but you should also think about what a therapy gives you over and above those common factors.

Searching for and Selecting a Therapist

- Once you have picked the type of therapy, what modality will you choose? Do you want individual, couples, family, or group therapy? It depends on the nature of the problem and who else might be involved. What would give you the best results?

- Should you try medications first? Should you try them concurrently? Should you try them only if talk therapy fails? If you think you might be interested in medications, get a few opinions—one from a prescriber of medications and one from a non-prescriber—before you make that sort of decision.

- Once you have your focus, goals, and symptoms and an idea of what treatment is based on evidence, you can use these terms to filter your search for a therapist. Keep in mind other factors, such as insurance coverage, transportation, and accessibility.

- Try to see whether any friends or family in your social support network have recommendations for therapists. Find out whether your insurer has recommendations or limitations on who they will allow you to see. You also want to try some online search engines.

- Some of the better referral directories can be found at websites for the American Psychological Association (locator.apa.org), the Association for Behavioral and Cognitive Therapies (abct.org), and the Academy of Cognitive Therapy (academyofct.org).

- In addition, you can always go to your state psychological association, or you can use the Substance Abuse and Mental Health Services Administration treatment locator (findtreatment.samhsa.gov).

Suggested Reading

Campbell, Nunes, Matthews, Stitzer, Miele, Polsky, Turrigiano, Walters, McClure, Kyle, Wahle, Van Veldhuisen, Goldman, Babcock, Stabile, Winhusen, and Ghitza, "Internet-Delivered Treatment for Substance Abuse."

Carroll, Kiluk, Nich, Gordon, Portnoy, Martino, and Ball, "Computer-Assisted Delivery of Cognitive-Behavioral Therapy."

Carroll, Ball, Martino, Nich, Gordon, Portnoy, and Rounsaville, "Computer-Assisted Delivery of Cognitive Behavioral Therapy for Addiction."

Carroll, Ball, Martino, Nich, Babuscio, and Rounsaville, "Enduring Effects of a Computer-Assisted Training Program for Cognitive Behavioral Therapy."

Questions to Consider

1. Go to the Apple App Store or the Google Play Store (Android). Type in "health promotion" or "mental health." How can you choose between the hundreds of choices that pop up? How can you determine quality before you invest money and time?

2. Explore the ABCT website at www.abct.org. Select an illness or symptom/issue that has affected you or someone you know. Review the information sheet (if available). Use the referral tool to find a cognitive therapy provider in your geographic region. How many are there? If there are several, how might you go about selecting one?

Crisis Resources

A psychiatric crisis—that is, a situation in which you are a danger to yourself or others as a consequence of mental illness—is no different from a medical crisis. It is appropriate to call 911 or to go directly to a hospital emergency room. Emergency medical technicians and 911 operators, as well as police and fire fighters, are trained in how to handle such issues, and they may be your best, fastest resources in the face of an immediate need.

Many specialty hotlines are also available, where counselors are trained to deal with specific needs. Most of these have both phone and online chat versions available. These resources are free and available 24 hours a day.

Some specific recommendations include the following:

National Suicide Prevention Lifeline

1-800-273-8255
www.suicidepreventionlifeline.org

National Council on Alcoholism and Drug Dependence Hopeline

1-800-622-2255
www.ncaad.org

National Domestic Violence/Child Abuse/Sexual Abuse Helpline

1-800-799-7233
http://www.thehotline.org/help/

Veterans Crisis Line

1-800-273-8255 ext. 1
VeteransCrisisLine.net

National Center for Posttraumatic Stress Disorder

1-802-296-6300
http://www.ptsd.va.gov/public/where-to-get-help.asp

RAINN National Sexual Assault Hotline

1-800-656-HOPE (4673)
online.rainn.org

SAMHSA Disaster Distress National Helpline

1-800-662-HELP (4357)
http://disasterdistress.samhsa.gov/

National Youth Crisis Hotline

1-800-442-HOPE (4673)
www.hopeline.com

Compassionate Friends (for parents enduring the loss of a child)

1-630-990-0010
www.compassionatefriends.org

Judi's House (for children dealing with the loss of a parent)

1-720-941-0331
www.judishouse.org

The Alzheimer's Association

1-800-272-3900

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Psychology Tools.

http://psychology.tools/download-therapy-worksheets.html.

Internet Resources

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http://www.americanpainsociety.org.

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Association for Behavioral and Cognitive Therapies.

http://www.abct.org/home.

CBT4CBT: Computer-Based Training for Cognitive Behavioral Therapy.

http://www.cbt4cbt.com.

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