The TRANSDIAGNOSTIC ROAD MAP to Case Formulation and Treatment Planning

Practical Guidance for Clinical Decision Making

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Foreword by JACQUELINE B. PERSONS, PhD
“Amid today’s flood of books and cacophony of webinars and podcasts, Frank and Davidson’s sage advice stands out in this unique text on transdiagnostic road maps. This book is well written with clinical acumen and a solid link to the empirical literature on comorbidity. It should be required reading for all students, clinicians, and researchers in the field. I highly recommend it!”

—Frank M. Dattilio, PhD, ABPP, Harvard Medical School, Boston, MA

“Follow this road map and you will likely never need to consult another ‘how to conceptualize my treatment approach’ map again! This volume moves the promise of transdiagnostic practice into the realm of possibility by showing how the latest research on transdiagnostic mechanisms informs individualized, case formulation-driven approaches to treatment planning, implementation, and assessment. Rochelle Frank and Joan Davison have written a very timely, important, and useful book that will be of use to clinicians, researchers, and students of mental health. Anyone who is interested in understanding how the latest research on mechanisms that cut across diagnostic boundaries can inform a practical, evidence-based guide to treatment will benefit from reading this book.”

—Ann Kring, PhD, vice chair and professor of psychology at University of California, Berkeley, and president of the Society for Research in Psychopathology
“This book is the first clinically accessible attempt to use transdiagnostic research to create a powerful new form of functional analysis: one that is specific, testable, replicable, and modifiable. As the DSM-V stumbles, this book presents the exciting possibility that we now have enough transdiagnostic knowledge to create a categorization system that will help practitioners select interventions based on their usefulness in targeting identified processes of change. The details could be mistaken, but this is a bold and creative step forward that deserves the attention of practitioners and researchers alike.”

—Steven C. Hayes, PhD, foundation professor and director of clinical training at University of Nevada and cofounder of acceptance and commitment therapy (ACT)

“How cognitive behavioral therapists need this book! Cognitive behavioral therapy (CBT) is in a transitional phase. There is increasing focus on transdiagnostic processes and process mechanisms such as avoidance, ruminative thinking, and anxiety sensitivity that underpin many of the problems we see clinically. But up until now, no one has really put this together in a coherent ‘how to’ form for clinicians. These authors have done it! The book is rich in illustrative examples and helpful ways to think about CBT interventions. I found myself constantly stimulated, as well as challenged, to make adaptations to my approach as a CBT therapist.”

To Mary—
Who inspires me beyond words and never stops believing in me.
—RIF

To Raja and Nadya—
Who bring joy and love to my life, and whose encouragement, patience, and passion for life make all things possible.
—JD
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Foreword

This book provides a GPS for the psychotherapist whose goal is to provide treatment that is caring, based in science, and individualized to meet the needs of each patient. The road to this destination can be difficult to locate and follow for many reasons. One is that the empirically supported treatment (EST) protocols developed by the scientific community typically target a single DSM disorder. But most individuals who seek treatment have multiple disorders and problems, many of which are not DSM disorders. To adapt the EST protocols to the needs of the patient with multiple disorders, the typical clinician uses a mix-and-match strategy, pulling interventions from multiple protocols to meet the needs of a particular patient in the moment. When I realized I was doing this, I looked over my shoulder repeatedly, fearing I was doing something illegal and would get in trouble. I worried, If I’m not following all the steps of any particular EST protocol, and if I’m drawing interventions from more than one EST protocol, does this mean I’m not doing evidence-based treatment? I also asked myself, How can I make thoughtful and evidence-based decisions about which interventions to pull from which protocols at any given point in treatment?

Complicating my navigational difficulties was the fact that scientists have developed dozens of EST protocols—more than any clinician can learn. In addition, the advent of new theoretical models means clinicians must make decisions about whether it is acceptable to integrate diverse models, and if so, how. That challenge has become particularly acute with the arrival of mindfulness-, dialectical-, acceptance-, and compassion-focused approaches in the third wave of cognitive behavioral therapies. Clinicians who confront these
challenges need help in accessing and using all of the information produced by the scientific and academic communities to make good clinical decisions.

Frank and Davidson provide the guidance that clinicians are seeking. In this book they describe a model that calls for the therapist to develop a conceptualization for each case that, together with progress-monitoring data, guides the therapist’s decision making. The heart of the formulation is one or more psychological mechanisms (such as intolerance of uncertainty, perfectionism, problematic schemas, and experiential avoidance) and hypotheses about how these mechanisms operate and interact to cause the patient’s disorders and problems. The authors describe how to use mechanism hypotheses and progress monitoring data to select interventions and make other clinical decisions to guide therapy as it goes forward.

I am proud to say that this book relies considerably on my own writing about case formulation in cognitive behavior therapy. And I’m happy to say that this book extends and strengthens that model in several ways, including by describing and detailing the evidence base supporting a large number of psychological mechanisms that the reader can use to build case formulations. This part of the book in particular is a huge contribution. I wish I had written it myself!

Readers of this book are clearly in the hands of experienced psychotherapists. These two authors have spent and continue to spend countless hours in their office taking care of patients, and their clinical skills and wisdom shine through on every page. At the same time, they offer a scholarly and scientific approach to clinical work. Scholarship, empiricism, and clinical wisdom are beautifully joined here.

I know these authors well. Joan and I have had a very close professional and personal relationship for more than twenty years, and Shelly has been my close colleague, with an office just down the street, for over five years. Each brings her own perspective and skill set to the book. Both were originally trained in psychodynamic models, both have extensive training and experience in cognitive behavioral therapy and acceptance and commitment therapy, and Shelly also has formal training in dialectical behavior therapy. Both are skilled in working with bipolar and other mood disorders. In addition, Shelly has expertise in treating PTSD and dissociative disorders, and Joan specializes in anxiety disorders, especially OCD. I have complete trust in both clinicians’ skills and judgment, and I rely on them when I need help with one of my own tough cases.
If you are a clinician seeking a route to thoughtful, evidence-based, effective, individualized, and caring interventions for your clients, this book will help you find your way.

—Jacqueline B. Persons, PhD
Director of the Cognitive Behavior Therapy and Science Center
Clinical Professor in the Department of Psychology,
University of California at Berkeley
Before we acknowledge the many individuals who contributed to this project, we would like to express our heartfelt appreciation and gratitude to our spouses, friends, and colleagues, whose ongoing encouragement and support throughout innumerable hours of conceptualizing, researching, and writing helped transform a dinner conversation into a book.

We would like to thank Dr. Matthew McKay and Catharine Meyers for their vision in recognizing the potential contribution this book can make to our field and the lives of the people we serve. We thank Dr. Patricia Zurita Ona for her participation and contributions during the formative stages of this project, and for her ongoing collegiality, friendship, and enthusiastic support. Our deep appreciation goes to Dr. Jacqueline Persons, who always took the time to read drafts, brainstorm ideas, offer guidance, and provide invaluable feedback and support since this project’s inception. Along with Dr. McKay, who was instrumental in helping us arrive at our final conceptualization of transdiagnostic mechanisms, Dr. Persons helped us refine and clarify many of our ideas.

Our editors, managers, and staff at New Harbinger—Jess Beebe, Jesse Burson, Ben Clausen, Heather Garnos, Vicraj Gill, Melissa Valentine, and others—provided many valuable suggestions, ironed out the kinks, and executed all the behind-the-scene steps that helped bring this book to completion. We especially thank Jasmine Star for her patience, guidance, and expertise through countless edits to help us refine and polish the manuscript. We appreciate being welcomed into the New Harbinger family, and look forward to the company’s next forty years of contributions, which bring, in the words of its
founder, “the knowledge of the few to the benefit of many.” We are deeply honored to be a part of that legacy.

We thank our colleagues at the San Francisco Bay Area Center for Cognitive Therapy (Drs. Daniela Owen, Michael Tompkins, and Dan Weiner) and Drs. Polina Eidelman and Janie Hong for sharing their knowledge and offering helpful suggestions as we fine-tuned conceptual issues and specific interventions. We also thank Emma Netland, who assisted us with literature searches. We are grateful for the many talented clinicians and researchers in the Bay Area who wholeheartedly supported our idea for this book and encouraged us at each juncture along the way.

We are forever indebted to our supervisors and teachers through the years, who provided a solid foundation for our clinical wisdom, helped us have the courage to take risks and be innovative, and gave us an insatiable thirst for lifelong learning. If this book lights the way for other clinicians, supervisors, and teachers so they can make an even bigger difference in the lives of their patients, trainees, and students, then we will have succeeded in what we set out to do several years ago when the idea for this book was conceived.

Finally, we would like to thank our patients—past, present, and future—for honoring us with their trust and inspiring us with their courage in allowing us to peer inside, accompany them on each incredible journey, and guide them to the other side of the mountain.
PART 1

Defining the Problem and Mapping Solutions
Over the past several decades the behavioral health care field has witnessed a veritable explosion of empirically supported treatments (ESTs). This burgeoning science has furthered our understanding of both the psychological mechanisms underlying emotional and behavioral disorders, and the component interventions comprising ESTs that target those mechanisms. An emerging literature on transdiagnostic processes has underscored the benefits of honing in on common psychological processes that are hypothesized to underlie different clinical syndromes, rather than focusing on discrete diagnostic entities (e.g., Egan et al., 2011; Ehring & Watkins, 2008; S. C. Hayes et al., 1996; Mansell et al., 2009). Despite these developing trends, therapists have little guidance on how to integrate this wealth of information and need help navigating the expansive array of options in the clinical armamentarium in order to develop effective treatment plans for their patients in real time.

Case formulation is an approach to assessment and treatment that allows clinicians to choose from available psychological theories and empirically supported treatments when attempting to understand patients’ problems and individualizing treatment to resolve them (Kuyken et al., 2009; Nezu et al., 2004; Persons, 2008). Knowing which implicit and explicit causal variables (i.e.,
mechanisms) may be responsible for patients’ problems is a crucial aspect of clinical assessment and a necessary step toward developing effective treatments to resolve those problems (Haynes et al., 2012). Existing case formulation models offer relatively limited guidance on how to identify specific mechanisms within the empirical literature that are hypothesized to underlie presenting problems, and how to select from the ever-increasing treatment options to best target those mechanisms. For example, Persons (2008) illustrates how theories of cognition, emotion, and learning inform case conceptualization and, together with disorder-based EST formulations, provide general strategies for developing mechanism hypotheses and treatment plans. While these models are highly useful, they stop short of pointing clinicians toward a range of specific mechanisms underlying psychological problems that have been identified through empirical research. Thus, therapists increasingly are challenged—and often are left feeling confused and overwhelmed—when considering which mechanisms might be driving patients’ problems and deciding how to best target them. Many therapists seek to resolve this dilemma by implementing various elements of ESTs, but the absence of clear guidelines for identifying and addressing mechanisms often results in a haphazard approach that potentially compromises treatment outcomes.

In this book, we offer a transdiagnostic road map as a practical and flexible framework to guide therapists as they strive to make sound decisions in a field inundated with ESTs and a rapidly growing body of literature on transdiagnostic mechanisms. Whether clinicians are choosing among interventions for treating singular disorders, co-occurring problems, or multifaceted and complex psychological conditions, the road map offers pathways to address the many challenges of assessment and treatment. Ours is the first transdiagnostic case formulation model that includes specific mechanisms derived from the empirical literature, a method for linking those mechanisms with patients’ problems, and a step-by-step process to guide clinicians through treatment from intake through termination.

The Path to a Transdiagnostic Solution

ESTs—manualized protocols developed in clinical research settings and proven effective in randomized controlled trials—have epitomized the gold standard of mental health practice for many decades. And while both therapists and patients have benefited greatly from these scientific advances, people generally do not fit neatly within the clearly defined and delineated diagnostic
Why We Need a Transdiagnostic Road Map

categories on which ESTs are based and tested. Moreover, psychiatric comor-

bidity is the norm rather than the exception (Kessler et al., 2005), and ther-

apists increasingly must bring creativity to assessing and treating patient 

problems (Rizvi & Harned, 2013). As those of us in clinical practice can attest, 

symptom clusters across disorders often are not mutually exclusive, and indi-

viduals seeking therapy frequently present with co-occurring conditions that 

pose significant challenges when trying to develop optimal treatment plans. 

For example, a person seeking treatment for depression may present with 

accompanying anxiety, panic attacks, and a history of childhood trauma, and 

may resort to self-harm as a means of regulating overwhelming emotions. 

Identifying which diagnostic hypotheses to consider and which factors—

psychological or otherwise—might be driving the individual’s presenting prob-

lems often is quite daunting. Moreover, therapists heretofore have had limited 

guidance in choosing among the continually expanding—and often equally 
effective—disorder-specific treatment protocols at their disposal.

ESTs: The Limits of Protocols

The limitations of ESTs in meeting the multiple needs of patients in 

common practice settings have long been recognized (Addis et al., 1999;

Barlow et al., 1999; Chambless & Ollendick, 2001). Similarly, critiques of ran-

domized controlled trials highlight their shortcomings and emphasize the need 

to augment evidence-based practices with approaches based on other sources, 

including clinicians’ experiences in the field (Clay, 2010). Dattilio and col-

leagues (2010) proposed a paradigm blending systematic case design with ran-

domized controlled trials in order to achieve more useful and integrated 

treatment interventions. Likewise, the American Psychological Association 

has sought to identify best practices based on an integration of empirical 

research, clinical judgment, and patient characteristics (Munsey, 2010).

Attempts to overcome the limits of EST protocols are not new. In 1998, 

Kendall and colleagues encouraged therapists to incorporate flexibility and 

creativity when conceptualizing patient problems and implementing treatment 

protocols, in order to avoid robotically choosing and implementing interven-

tions. Kendall and Beidas (2007) proposed the idea of flexibility within fidelity 

as a guiding principle for implementing cognitive behavioral therapy with chil-

dren. Subsequent work delineated specific ways to make adjustments to com-

ponent interventions within manualized protocols in order to address individual 

differences such as cognitive ability and developmental stage (Kendall et al., 

2008). However, even when ESTs are tailored to specific patient needs,
manual-based protocols target singular disorders and do not allow for inclusion of other interventions that are effective in treating those same problems.

The importance of incorporating flexibility when implementing and disseminating ESTs in clinical practice settings is clear (Beidas et al., 2010; Beidas & Kendall, 2010), though therapists must use caution to prevent decreased treatment effectiveness as a result of departing from standardized procedures (Koerner et al., 2007). One path toward flexible delivery of interventions without compromising effectiveness involves individualizing interventions while preserving the principles underlying treatments, and includes providing training and support for clinicians and monitoring patient progress (Mazzucchelli & Sanders, 2010). Another option is separating interventions into components that can be either implemented or omitted as needed to address presenting problems, which also would promote flexibility without violating the treatment’s integrity (Chorpita, 2007). While these recommendations are helpful, there currently are few guideposts to help therapists navigate this uncharted territory.

**Individualizing Treatment: Case Formulation**

Persons (1989) pioneered efforts to individualize treatment to the specific needs of each patient in her seminal work on case formulation, which highlighted the limitations of rigid adherence to treatment protocols designed for singular disorders when patients present with multiple problems or psychological conditions for which no EST exists. Largely rooted in cognitive theory (A. T. Beck, 1976), Persons’s current case formulation approach (2008) also incorporates learning theories and models of emotion to target psychological mechanisms underlying presenting problems, using frequent hypothesis testing and ongoing assessment of patient progress to guide selection of cognitive behavioral interventions. Another case conceptualization model (Kuyken et al., 2009) likewise focuses on presenting problems and associated psychological mechanisms, while also emphasizing patient collaboration and including physiological and environmental variables. Personal strengths are incorporated into the treatment plan to enhance patients’ self-concept, which can reduce emotional distress and functional impairments while increasing relapse prevention and resilience to future stressors (Kuyken et al., 2009).

Nezu and Nezu (1995) base their case formulation model on a problem-solving approach to clinical decision making. Similar to the models described above, Nezu and colleagues (2004) target psychological mechanisms of action through theory-driven or diagnosis-driven strategies, while taking into account
multiple dimensions of a patient’s life. This paradigm offers a guide for choosing interventions based on putative mechanisms of action that are targeted within disorder-specific treatments, but it does not identify underlying mechanisms across a range of co-occurring problems or psychiatric comorbidities.

Case formulation epitomizes flexibility and empiricism by allowing therapists to step outside manualized protocols and individualize interventions in an effort to achieve improved treatment outcomes. A continual feedback loop surrounding collaborative decision making and monitoring of patient progress guides this process (Persons, 2008), providing an alternative to simultaneous or sequential application of multiple protocols, which may not be practical or desirable (Persons et al., 2006). However, the process of developing formulations and choosing interventions is not always straightforward, since many treatment options exist for many disorders, including depression (A. T. Beck et al., 1979; Martell et al., 2010), obsessive-compulsive disorder (Foa et al., 2012; Wilhelm & Steketee, 2006), social anxiety disorder (D. M. Clark & Wells, 1995; Rapee & Heimberg, 1997), and PTSD (Foa et al., 2007; Resick & Schnicke, 1996). Even when targeting a singular construct within a disorder, such as worry in generalized anxiety disorder (GAD), therapists must consider multiple formulation hypotheses such as cognitive avoidance, intolerance of uncertainty, and emotion dysregulation (Behar et al., 2009). Thus, whether clinicians are treating singular problems or comorbid conditions, there are many good choices—yet little clarity—regarding how to develop more precise mechanism hypotheses and effective treatment plans for the individual patient.

**Toward a Transdiagnostic Road Map**

Current trends within the scientific community are shifting away from a symptom-based, disorder-specific approach that prescribes different treatment interventions for separate disorders. Instead, there is increasing interest in and support for an approach that focuses on the common psychological processes underlying topographical descriptions of different disorders that contribute to the etiology and/or maintenance of psychopathology (e.g., Egan et al., 2011; Egan et al., 2013; Ehring & Watkins, 2008). This transdiagnostic perspective is particularly salient in addressing psychiatric comorbidities and is based on distilling principles of treatment rather than developing new therapy prototypes (Barlow et al., 2004; S. C. Hayes et al., 1996). More importantly, perhaps, a transdiagnostic perspective constitutes the basis of a functional approach to treatment that transcends the limits of categorical classification, such as that in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association,
The Transdiagnostic Road Map to Case Formulation and Treatment Planning

2013), and helps synthesize commonalities across the theoretical constructs underlying treatment models and diagnoses into a coherent, integrative, and parsimonious system (e.g., Barlow et al., 2011; S. C. Hayes et al., 2012). This potentially leads to more expedient, practical, and efficacious treatment of psychopathology in general (D. A. Clark, 2009; Craske, 2012; Egan et al., 2012).

**Transdiagnostic Processes**

Ingram (1990) was an early pioneer of transdiagnostic processes, identifying self-focused attention (i.e., heightened and often inflexible awareness of internal stimuli) as a common maintaining variable across a wide range of disorders (e.g., depression, anxiety, psychosis, psychopathy), which distinguished adaptive from maladaptive functioning. Even prior to the current concept of transdiagnostic processes, Aaron Beck (1976) recognized that his cognitive theory and treatment of depression could be applied successfully to anxiety disorders. Subsequent studies have examined other psychological mechanisms that are shared across diagnostic categories and have a critical role in maintaining psychopathological functioning. For example, repetitive negative thinking (e.g., rumination, worry) has been linked to increased depression and anxiety across a range of psychological disorders, including major depression, social anxiety disorder, generalized anxiety disorder, and PTSD (see Watkins, 2008, for a review). Similarly, experiential avoidance has been identified as a principal factor in maintaining subjective distress across multiple disorders (S. C. Hayes et al., 1996). Gilbert and Irons (2004) identified self-attacking as an underlying process that maintains psychopathological symptoms and maladaptive functioning across mood, anxiety, and trauma-related disorders, and created treatment interventions focused on experiential techniques for self-soothing and self-compassion as a means of tackling this mechanism. Harvey and colleagues (2004) identified twelve transdiagnostic processes (e.g., attentional avoidance, behavioral avoidance, emotional reasoning) within the domains of attention, memory, reasoning, thought, and behavior that seem responsible for causing and/or maintaining psychopathology across diagnostic categories.

**Transdiagnostic Models of Treatment**

A transdiagnostic perspective that focuses on underlying psychological mechanisms is gaining increasing support in both clinical and research settings (Craske, 2012; Egan et al., 2013; Mansell et al., 2009). Barlow and
colleagues (2011) developed a unified protocol that integrates known clinical techniques, such as mindfulness skills and interoceptive exposure, which has proven efficacious in the treatment of comorbid anxiety and unipolar mood disorders. Similarly, Fairburn’s eating disorders protocol (2008) encompasses multiple psychological processes, and there now is a skills manual (Leahy et al., 2011) for therapists treating emotion dysregulation problems that uses interventions taken from existing ESTs. Even the self-help community has moved toward transdiagnostic solutions, including a guide to reducing perfectionism (Shafran et al., 2010), and a protocol for improving emotion regulation and overall coping (McKay et al., 2011) by integrating skills from acceptance and commitment therapy (ACT), cognitive behavioral therapy (CBT), and dialectical behavior therapy (DBT).

Some transdiagnostic models focus exclusively on only one or two underlying processes, such as self-focused attention (Ingram, 1990), emotion dysregulation (Suveg et al., 2010), or cognitive fusion and experiential avoidance (S. C. Hayes et al., 2012). Despite the groundbreaking impact of these theoretical models and corresponding treatment protocols, they do not guide clinicians in considering how multiple psychological processes—including processes not included in those models—might interact within singular and comorbid clinical problems. Similarly, categorizing systems for transdiagnostic processes (e.g., Harvey et al., 2004) have been useful in illuminating etiological and functional commonalities across different disorders that can inform potential interventions, but they do not provide guidance on how to incorporate transdiagnostic considerations into comprehensive assessment and treatment planning in actual practice.

Transdiagnostic perspectives reflect an appreciation that common psychological processes drive seemingly different clinical disorders. However, they do not offer a truly individualized and comprehensive approach to understanding and treating the person behind the presenting problem. Case formulation models do offer this, though they offer little direction on how to identify specific mechanism hypotheses within the broader range of options that have been established via empirical research on psychological mechanisms and the treatments that target them.

Thus, the need for a clinically relevant understanding of transdiagnostic processes that may be utilized in practice settings to inform clinical decision making is unequivocally clear. Therapists and patients alike would benefit from practical guidelines for a collaborative and empirical approach to understanding presenting problems within a comprehensive context; developing hypotheses about the specific etiological and functional mechanisms (derived
from both transdiagnostic and disorder-specific models) underlying patients’ problems; and selecting interventions to effectively target those mechanisms, facilitate achievement of treatment goals, and improve patients’ functional abilities and quality of living. The transdiagnostic road map offers this long-awaited and much-needed solution.

A Transdiagnostic Road Map to Case Formulation and Treatment Planning

Like most evidence-based practitioners, we have struggled to stay abreast of the scientific literature in figuring out which psychological mechanisms might be driving presenting problems and which interventions are most effective and appropriate for any given patient. To meet this need, we developed the construct of transdiagnostic mechanisms (TDMs), which integrates principles from the literature on transdiagnostic processes and psychological mechanisms with current knowledge about theory-driven and disorder-based treatments. We define TDMs as underlying vulnerabilities and patterns of responses that are hypothesized to trigger and maintain cognitive, behavioral, emotional, and physiological symptoms and functional impairments across diagnostic categories. TDMs are psychological processes that may be targeted in treatment using our unique classification system, which enables clinicians to select interventions based on the actions needed to target mechanisms identified in the transdiagnostic formulation and achieve each patient’s desired outcome goals.

Identification of TDMs is the driving force of transdiagnostic case formulation. Our clinical road map guides clinicians through the psychotherapy process from intake through termination and incorporates therapist and patient creativity to enhance interventions and further refine treatment planning. We illustrate how to conduct clinical assessments that generate TDM hypotheses to explain patients’ presenting problems, and we teach therapists how to use mechanism hypotheses for guidance in collaborating with patients to develop goals, choose interventions from evidence-based options, and individualize treatment plans to best meet patients’ needs, help them resolve problems, and improve their lives. Here we present a schematic of the transdiagnostic road map that highlights the central role of mechanism identification in case conceptualization and treatment planning.
The Role of TDMs in Treatment Planning

**Patient’s experience**
- Presenting problems and symptoms

**Assessment**
- Intake and background information
- Assessment instruments
- Diagnostic hypotheses and rule-outs
- Observations
- Specific examples of problems
- Mechanism measures

**Develop TDM hypotheses**
- Based on assessment data
  - Vulnerability mechanisms
  - Response mechanisms

**Develop treatment goals**
- Identify global outcome goals
- Identify mechanism change goals
- Define measurable markers of change
- Assess patient readiness for change
- Prioritize goals

**Develop TDM formulation**
- Explain patient problems and symptoms in context of mechanisms
- Identify factors that could worsen problems or impede treatment
- Identify patient strengths and resources

**Select interventions**
- Target mechanism change and global outcome goals
- Consider functional utility of interventions
- Incorporate skillful creativity

**Progress monitoring**
- Monitor effectiveness of interventions
- Monitor mechanism change and global outcome goals
- Adjust TDM formulation and treatment plan as needed

**Terminate as appropriate**

**Reassess as needed**
We want to emphasize that the transdiagnostic road map is not an attempt to create another treatment protocol. Rather, it is a practical solution for clinicians seeking the most effective strategies to help their patients. Our user-friendly worksheets (available in the appendix, and as downloads at http://www.newharbinger.com/28951) provide in-session tools that can be applied to a diverse array of presenting problems, psychological symptoms, and functional difficulties. Similar to other case formulation models, the road map is strongly rooted in scientific principles and empirical methods, and relies on a continual feedback loop of collaborative and ongoing assessment of presenting problems and symptoms, monitoring of patient responses to interventions, and testing of transdiagnostic mechanism hypotheses. While our compilation of TDMs is not exhaustive, we have included many mechanisms frequently described in the literature on psychological processes, disorders, and treatments. The road map’s flexibility allows you to adapt and expand our guidelines to fit your own practice and patients’ needs, and to incorporate additional mechanisms and interventions as they evolve and new research unfolds. We are confident that the transdiagnostic road map will prove to be a trusted compass, enabling you to navigate your clinical journey with patients with skill and aplomb.
CHAPTER 2

Vulnerability Mechanisms

Our compilation of TDMs synthesizes and categorizes mechanisms derived from the burgeoning literature elucidating their role in the development and maintenance of psychological problems, both within and across diagnoses. As we worked toward translating research on psychological mechanisms into a practical guide for clinicians, we noted the multiple ways in which mechanisms have been defined. Mechanisms have been discussed as psychological processes, risk factors, transdiagnostic vulnerability factors, cognitive vulnerabilities, cognitive and emotional constructs, mediators or moderators between other mechanisms and symptoms, maintaining mechanisms, coping mechanisms, and patterns of responses, among others. While these different conceptualizations have enhanced therapists’ understanding of psychological problems, it is no wonder that clinicians struggle to consolidate and translate mechanism research into practice! Based on an extensive review of how these constructs influence patient problems, noted points of overlap and difference, and demonstrated transdiagnostic applications, we developed the following listing of TDMs to guide therapists in determining the underlying forces driving and maintaining patients’ problems, which may then be directly targeted with clinical intervention.
# Transdiagnostic Mechanisms

## Vulnerability Mechanisms

### Neurophysiological predispositions

Deficits in:
- Arousal regulation and inhibitory control
- Executive functioning
- Information processing, storage, and retrieval
- Emotion regulation
- Sleep regulation

### Learned responses

- Respondent (classical) conditioning
- Operant conditioning
- Modeling

### Pervasive beliefs

- Negative schemas
- Metacognitive beliefs

### Specific cognitive constructs

- Anxiety sensitivity
- Perceived control
- Intolerance of uncertainty
- Perfectionism
- Fear of evaluation
- Negative problem orientation
- Inflated responsibility and threat estimation
- Sensitivity to illness or injury

### Multidimensional construct

- Distress tolerance

## Response Mechanisms

### Experiential avoidance

- Avoidance and escape strategies
  - Safety seeking
  - Reassurance seeking
  - Compulsions
- Behavioral (situational) avoidance
- Cognitive avoidance
  - Thought control
  - Thought suppression
  - Worry (as a function)
- Interoceptive (somatic) avoidance
- Emotional avoidance
- Emotion-driven behaviors

### Cognitive misappraisals

### Attentional focus

### Attributional bias

- Internalizing (self-attacking)
- Externalizing (attacking others)

### Repetitive negative thinking

- Worry (as a process)
- Rumination
- Post-event processing
We view TDMs as representing both vulnerability and response components of problems, which are interconnected and contribute to continuous feedback loops that further perpetuate those problems—and often give rise to additional difficulties. Developing hypotheses about how vulnerability and response mechanisms collectively may influence each other furthers therapists’ understanding of the larger clinical picture. While transdiagnostic formulation centers around TDMs, it also includes internal variables, such as genetic risk for certain problems, environmental stressors, and cultural considerations.

It is beyond the scope of this book to provide detailed literature reviews of the mechanisms described herein. Research on mechanisms is advancing at a rapid rate, and it is virtually impossible to create an exhaustive list. We encourage you to stay abreast of these developments to enhance your understanding of patients’ problems and the forces driving them. By focusing on TDMs, we seek to bridge the gap between clinical science and practice, facilitate achievement of patients’ goals, and improve clinical outcomes.

We discuss vulnerability mechanisms in this chapter and address response mechanisms in chapter 3, including measures of these constructs where possible. These chapters provide the empirical foundation for our compilation of TDMs and serve as a quick reference to help you learn about specific mechanisms, facilitate assessment of patients’ problems, and guide your decisions about TDMs and how to best treat them. Many vulnerability mechanisms evolved from research on distinct disorders and problem-specific symptoms, though their transdiagnostic nature is becoming increasingly apparent. While vulnerability constructs such as “neuroticism,” a dimension of temperament involving the propensity toward negative emotional states (e.g., anxiety, depression), have been implicated as biological vulnerabilities contributing to the prediction of psychological disorders (Barlow, 2002; Brown & Naragon-Gainey, 2013), the TDMs described below represent specific vulnerability components of problems that are most amenable to direct clinical interventions.

## Neurophysiological Predispositions

Some vulnerability mechanisms are neurophysiological, reflecting deficits in regulatory factors involved in arousal and inhibition, executive functioning, emotion and sleep regulation, and information processing, storage, and retrieval. Neurophysiological mechanisms have been identified as potential mediators of symptom change, and targeting them directly in treatment can yield significant improvements in patient functioning across multiple disorders,
including anxiety, depression, addiction, and psychosis (Siegle et al., 2007). They often evoke response mechanisms, such as emotion-driven behaviors (e.g., cutting), related to limbic hyperarousal and cortical disinhibition. Targeting neurophysiological mechanisms and explaining them to patients can reduce patients’ sense of failure and help therapists understand potential treatment roadblocks, such as when patients experience difficulty completing homework or do not respond to interventions as anticipated. For example, impaired executive functioning might prevent a highly motivated patient from completing a thought record, and deficits in information processing, storage, or retrieval could interfere with the ability to learn and implement strategies to tolerate uncertainty. Often, multiple vulnerabilities maintain presenting problems, and treatment frequently involves teaching compensatory strategies rather than eradicating deficits (Solanto, 2011).

**Arousal Regulation and Inhibitory Control**

Deficits in arousal regulation and inhibitory control disrupt self-regulation and behavioral inhibition and are implicated in ADHD (Barkley, 1997; Solanto, 2011). Disinhibition also is associated with anxiety and mood disorders, substance abuse, antisocial behavior, schizophrenia, and PTSD (see Nigg, 2000, for a review). Impulsivity correlates with neural substrates for multiple disorders (Moeller et al., 2001) and with increased suicidal behavior in bipolar and other patients (Swann et al., 2005). Emotional hyperarousal has been linked transdiagnostically with worry (Turk et al., 2005), and emotional and physiological hyperarousal can lead to insomnia, especially in the absence of effective coping skills to downregulate arousal (Morin & Espie, 2012). Poor arousal regulation after stressful life events appears to be correlated with sleep disturbances and increased manic symptoms in bipolar patients (see Levenson et al., 2013, for a review).

Craske and Barlow (2008) suggest that the seemingly heightened awareness of somatic sensations of arousal accompanying panic attacks (Ehlers & Breuer, 1992) may be a predisposing factor in panic disorder. This seems related to problematic respiratory control mechanisms, which reduce blood levels of carbon dioxide, a condition known as hypocapnia (Klein, 1993; Ley, 1985), triggering multiple physiological changes that contribute to cognitive misappraisals of panic sensations (Meuret et al., 2010). Similarly, inadequate modulation of cardiac function during respiration has been implicated in emotion dysregulation across a range of problems, including antisocial behavior (Crowell et al., 2006), parasuicidal behavior (Crowell et al., 2005), anxiety and worry
(Thayer et al., 1996), depression (Rottenberg et al., 2002), and panic (Yeragani et al., 1993). The rapid spike in emotional arousal and slow return to baseline commonly seen in borderline personality disorder (BPD) have been linked to deficits in downregulation of limbic structures and poor modulation of maladaptive behavioral action urges (Linehan et al., 2007).

**Executive Functioning**

Executive functioning includes navigating new situations, analyzing problems and selecting strategies to solve them, inhibiting incorrect and inappropriate behaviors, and assessing performance and adjusting future planning accordingly. While executive functioning deficits are most notably associated with ADHD, which involves impairments in motivation, working memory, and self-regulation (Barkley, 1997), they also occur in depression, anxiety, eating disorders, and substance abuse (which often accompany ADHD) and may be directly targeted in treatment (Solanto, 2011).

Anxiety has been shown to decrease executive functioning (Eysenck et al., 2007). Executive functioning deficits also occur in schizophrenia and OCD (see Gotlib & Joormann, 2010, for a review), as well as in compulsive hoarding (Grisham et al., 2007) and PTSD (Aupperle et al., 2012). Frontal brain regions that govern cognitive and emotional executive functioning and are involved in emotion regulation have been implicated in BPD psychopathology (Salavert et al., 2011) and seem related to widespread impairments in executive functioning in those patients (Quiraishi & Frangou, 2002).

**Information Processing, Storage, and Retrieval**

Information processing deficits are linked with multiple psychological problems. For example, impaired visual organization and problem solving occur in OCD (Rampacher et al., 2010). Memory biases involving encoding and retrieval of emotionally significant information have been demonstrated across anxiety and mood disorders, including depression, social phobia, and panic (Matthews & MacLeod, 2005). Faulty neural networks governing visuospatial working memory have been implicated in intrusive images and visual memories across anxiety disorders, eating disorders, depression, and psychosis (Brewin et al., 2010), and increased limbic activation during encoding of trauma-related information is associated with development of flashbacks (Bourne et al., 2013).
Negative information-processing biases are characteristic of both unipolar and bipolar depression and create cognitive risk factors for higher lifetime rates of depression (see Alloy et al., 2006, for a review). These biases deplete cognitive resources and prevent reflective processing that could provide corrective information (Beevers, 2005). Depressed individuals also demonstrate deficits in inhibitory control of irrelevant information, which interferes with selective attention and working memory and may explain the characteristic proneness toward rumination, difficulties disengaging from negative material, and emotion regulation problems (Gotlib & Joormann, 2010).

The hallmark symptoms of PTSD (e.g., intrusive memories and images, dissociation) have been linked to faulty information processing and retrieval, which may explain why many trauma survivors experience significant gaps in autobiographical memory and are prone to selective attention toward threat-related cues (Brewin et al., 1996; Ehlers & Clark, 2000). Similar disruptions occur in social phobia: recurrent intrusive images of negative social events accompany the development or worsening of symptoms and lead to avoidance of social stimuli or situations, which prevents appropriate encoding of this information into autobiographical memory and further exacerbates symptoms (Wild et al., 2007). Intrusive memories and images occur in bipolar depression, and intrusive and vivid positive images seem to disrupt circadian rhythms and trigger hypomania (Gregory et al., 2010). Foa and Kozak (1986) proposed a “fear network” of trauma-related memory structures that colors schemas of the self (as incompetent) and the world (as dangerous), interrupting assimilation of new information. The efficacy of CBT in treating PTSD has been linked to its ability to create alternative mental representations that compete with trauma-related negative memories and images (Brewin, 2006).

**Emotion Regulation**

Emotion regulation (ER) deficits are core features of bipolar spectrum conditions (Goodwin & Jamison, 2007) and borderline personality disorder (Linehan, 1993a). Disruptions in dopamine and serotonin systems responsible for regulating emotion are associated with many of the hallmark symptoms of bipolar disorder, including depression, mania, and increased appetitive behavior (Miklowitz & Johnson, 2006). The characteristic emotional hypersensitivity and associated behavioral dysregulation in BPD have been linked to increased amygdala activation (Herpetz et al., 2001). Trauma-related changes in neural structures are associated with hyperarousal, dissociation, and emotional numbing and dysregulation in PTSD (Malta, 2012). ER deficits predict
symptom severity and functional impairments in PTSD (Cloitre et al., 2005), and identifying and targeting the mechanisms underlying emotion dysregulation may improve treatment outcomes for complex PTSD (Bryant, 2010). Problems with experiencing, differentiating, attenuating, and modulating emotions occur in anorexia nervosa and major depression and can distinguish patients in both groups from nonclinical controls (Brockmeyer, Bents, et al., 2012). ER deficits have been implicated in patients with skin-picking problems and trichotillomania (Snorrason et al., 2012), supporting the utility of DBT-enhanced habit-reversal treatments that improve emotion regulation (Keuthen et al., 2012).

**Sleep Regulation**

Emotion regulation and sleep regulation are closely related. For example, excessive emotional reactivity may be an underlying mechanism in insomnia and other sleep disorders (Gehrman et al., 2012). Deficits in sleep architecture and regulation have been linked with ER problems in bipolar illness, major depression, ADHD, and psychosis, suggesting sleep as a causal transdiagnostic mechanism and supporting therapies that target circadian rhythms and light exposure and restriction to reduce psychiatric symptoms (Harvey et al., 2011). Sleep disturbances have been linked with increased mania via multiple pathways (Levenson et al., 2013). Sleep disruptions and regulatory dysfunction also are associated with schizophrenia, often preceding psychotic episodes, and may play a role in its etiology (Lunsford-Avery & Mittal, 2013).

**Learned Responses**

Learned responses are acquired throughout life and can be specific to certain events or generalized across situations. Therapy includes identifying consequences of learned responses to reveal contextual and functional patterns of problematic behavior, and to encourage and test new learning to reduce distress and improve functioning and quality of living. Understanding learned responses can contribute to hypotheses about other vulnerability mechanisms (e.g., schemas, perceived control, intolerance of uncertainty) and associated response mechanisms (e.g., avoidance, safety seeking, cognitive misappraisals), further informing treatment decisions.
Barlow’s triple vulnerability model of emotional disorders (2000, 2002) highlights the role of early learning experiences in a diminished sense of the predictability or controllability of stressful events, which is a general psychological vulnerability to developing chronic anxiety or depression. For example, children learn from their parents (and others) to fear physiological sensations, seek medical reassurance, avoid uncomfortable situations, or strengthen certain dysfunctional thoughts or beliefs. Early learning influences the focus of patients’ distress and the development of distinct psychological vulnerabilities that underlie specific disorders (e.g., anxiety sensitivity in panic, fear of negative evaluation in social anxiety). Understanding how problematic behaviors are learned helps clinicians choose interventions that will best address patients’ experiences. Three major learning theories inform these efforts: respondent (classical) conditioning, operant conditioning, and observational learning. (For a comprehensive review of behavioral principles and their application to clinical practice, see Ramnerö & Törneke, 2008.)

**Respondent (Classical) Conditioning**

Respondent (classical) conditioning underlies many psychological problems, especially maladaptive fear responses that result when a previously neutral stimulus gets paired with aversive stimuli. For example, when fear is elicited during a panic attack, previously neutral physiological sensations such as respiration and heart rate subsequently can evoke fear via interoceptive conditioning. Thus, a panic attack on a particular bridge may lead to the avoidance of all bridges because of their generalized association with panic sensations, and a seemingly innocuous object such as a baseball cap can elicit fear if an assailant was wearing one during a robbery. Many PTSD symptoms result from the association of previously neutral stimuli with fear and anxiety due to the trauma-related context of their initial pairing (Foa & Kozak, 1986).

**Operant Conditioning**

Operant conditioning affects behaviors via the types of consequences received for engaging in them. Mowrer’s two-factor theory (1960) often is cited to explain coping responses in anxiety disorders, highlighting the role of respondent conditioning in the development of feared associations, and that of operant conditioning in reinforcing avoidance and escape behaviors. In Lewinsohn’s theory of depression (1974), either a reduction in positive
reinforcement or an increase in aversive consequences may lead to depression by triggering response mechanisms such as behavioral withdrawal. (Positive reinforcement increases occurrences of a behavior by adding something appetitive, whereas negative reinforcement does so by removing something aversive.) Negative reinforcement maintains avoidance of situations that evoke fear, anxiety, and other unpleasant emotions. Punishment adds an aversive consequence for the purpose of decreasing or eliminating behaviors. Recognizing patterns of problematic behaviors increases therapists’ understanding of how patients learn them (e.g., not being able to assert personal limits because speaking up as a child resulted in ridicule and withdrawal of affection) and suggests possibilities for interventions to achieve desired behavioral objectives (e.g., skills training to increase assertiveness and interpersonal effectiveness).

**Modeling**

People also learn by observing and imitating behaviors modeled by others (A. Bandura, 1977). Consequently, observing how caregivers and other significant individuals respond to situations can contribute to the development and maintenance of problematic behaviors and coping styles. For example, witnessing parents yell and hit others when they are frustrated and angry serves as a model for children to use similar verbal and physical responses to such feelings. Likewise, if a caregiver avoids speaking up for herself when blamed or criticized, her children may learn to imitate her behavior in similar situations. Modeling is one of several ways that family context has been shown to affect children’s emotional adjustment and development of emotion regulation skills (Morris et al., 2007). Learning also can occur outside of direct experience (e.g., via what individuals are told by others or read in the media). The developmental, familial, and social context of observational learning sheds important light on patients’ learned responses and coping style.

**Pervasive Beliefs**

Pervasive beliefs are deeply entrenched core ideas influencing thinking patterns, behaviors, mood, and interpretations of events. When activated, these constructs elicit response mechanisms, symptoms, and functional impairments.
Negative Schemas

Aaron Beck’s model of depression (1964) identifies schemas as underlying cognitive structures that develop early in life and affect people’s interpretation of their experiences. Schema content can include core negative beliefs about oneself (e.g., *I’m worthless and unlovable*), others (e.g., *People are uncaring and judgmental*), the world (e.g., *The world is dangerous and punishing*), and the future (e.g., *Things will never get better*). Schemas typically are activated by external life events, though internal experiences such as emotional responses (e.g., shame) also can trigger and strengthen them (e.g., *I am bad*). Negative core beliefs generally fall into three broad categories: helplessness, unlovability, and worthlessness (J. S. Beck, 2011), and a person’s schema content can span multiple categories. Negative schemas have been linked with trauma disorders (Foa et al., 2007), anxiety disorders (A. T. Beck et al., 1985), and personality disorders (A. T. Beck et al., 2006).

When triggered, schemas can act as a lens that distorts reality to conform with and confirm existing schemas. Schema activation evokes negative emotions and response mechanisms such as cognitive distortions and avoidance behaviors. For example, if Tim believes he is unlovable and others always reject him, a delayed response from a friend whom he texted might lead Tim to conclude that his friend no longer likes him, thus “proving” the schemas *I’m unlovable* and *Others are rejecting*. Tim may then withdraw from the relationship, avoid other friends, or selectively scan for evidence of other perceived rejections, potentially leading to depression, social anxiety, conflicts with coworkers, or a slew of other emotional and behavioral problems. Therapists often can identify schemas through patients’ automatic thoughts affiliated with negative emotional experiences (A. T. Beck et al., 1979; J. S. Beck, 2011).

Metacognitive Beliefs

Metacognition involves beliefs about one’s own cognitions (Wells, 2000) and influences how individuals respond to their thoughts and feelings. Wells (2009) describes how metacognition drives repetitive styles of thinking that maintain a sense of threat (e.g., worry, rumination, attention to threat) and contribute to efforts (i.e., response mechanisms) aimed at controlling, suppressing, or undoing thoughts. For example, both positive beliefs about worry (*Worry is helpful; I need to worry so I’ll be prepared and not taken by surprise*) and
negative beliefs about worry (Worry is harmful; I need to stop worrying) can maintain worry and fuel attempts to control or suppress it. Metacognitive beliefs about emotions are also targeted in treatment (e.g., Greenberg, 2002; Linehan, 1993a). Manser and colleagues (2012) examined beliefs about emotions, revealing six dimensions: overwhelming and uncontrollable; shameful and irrational; invalid and meaningless; useless; damaging; and contagious.

Metacognitive beliefs about the meaning and danger of thoughts and the usefulness of rituals are a central feature of OCD (Wells, 1997). Importance and control of thoughts is one of three cognitive constructs associated with OCD (Obsessive Compulsive Cognitions Working Group [OCCWG], 1997, 2005) and is measured using the Obsessive Belief Questionnaire – 44 (OBQ-44; OCCWG, 2005). Patients interpret intrusive thoughts as meaningful and significant and fuse thoughts with actions and moral equivalents, such as If I have a bad thought, it means that I might act on it, or that I’m a bad person (Rachman, 1993). These interpretive beliefs are referred to as thought-action fusion (TAF), in which having a disturbing thought is believed to increase the probability of its occurrence or is the moral equivalent to carrying it out (Rachman et al., 1995); this construct can be assessed using the TAF Scale (Shafran et al., 1996). While TAF is an important construct in OCD symptomatology, its superstitious quality reflects its broader reach to other disorders as well, including GAD, panic disorder, and eating disorders (Shafran & Rachman, 2004).

Specific Cognitive Constructs

Mostly derived from investigation of psychological mechanisms underpinning singular disorders, specific cognitive constructs are trait-like attributes that increasingly are the focus of transdiagnostic study. These TDMs interact with environmental, developmental, interpersonal, and physiological variables to increase the risk of developing numerous emotional and behavioral problems (Alloy & Riskind, 2006). Moreover, they appear amenable to clinical intervention and may be targeted as stand-alone psychological problems in individuals who are predisposed to react to them with heightened anxiety, shame, and other potentially problematic emotions (e.g., anger) and associated behaviors (e.g., avoidance, checking, criticism of self and others).
**Anxiety Sensitivity**

Anxiety sensitivity (AS) is the fear of anxiety-related sensations due to beliefs that experiencing anxiety can have negative implications (Reiss et al., 1986). It involves fears of somatic, cognitive, and social consequences of anxiety, though some dimensions are more specific to certain disorders, such as somatic fears in panic disorder, and fears of publicly observable anxiety reactions in social phobia (Deacon & Abramowitz, 2006). AS can be assessed via the Anxiety Sensitivity Index – 3 (ASI-3; Taylor et al., 2007).

AS is one of three fundamental fears within Reiss and McNally’s expectancy model of fear (1985): fear of anxiety or fear itself (AS), fear of injury or illness, and fear of negative evaluation. That model expanded anxiety research beyond learning theory to include expectancy and information processing. For example, avoidance can be motivated by expectations of what individuals think will happen and why they are afraid of anticipated events. Thus, AS may be a risk factor for anxiety disorders, and not just a consequence of experiencing panic or anxiety (Reiss, 1991). AS is associated with fearfulness, phobias, and substance abuse (Reiss, 1991), and consistently strong correlations occur with agoraphobia, GAD, panic, and PTSD (Naragon-Gainey, 2010).

AS can predict depressive symptoms (Reardon & Williams, 2007) and has been demonstrated as a vulnerability factor for compulsive hoarding (Medley et al., 2013). It correlates with thought suppression to additively predict anxiety symptoms (Keough, Timpano, et al., 2010) and raises the risk for substance use disorders (Schmidt, Buckner, et al., 2007). AS also increases drug withdrawal symptom severity and relapse risk, and decreases tolerance of withdrawal symptoms (Stewart & Kushner, 2001). Based on its role in the etiology and maintenance of anxiety disorders, substance abuse, and mood disorders, Schmidt, Eggleston, and colleagues (2007) developed a prevention program to target AS as a transdiagnostic cognitive vulnerability. CBT interventions are efficacious in reducing AS, although the mechanisms of change remain unclear (Smits et al., 2008).

**Perceived Control**

Barlow (2000, 2002) posited a diminished sense of control over aversive events and emotional experiences (due to early learning) as a general psychological vulnerability factor for emotional disorders, including chronic anxiety and depression. Perceived control is implicated as a vulnerability factor for
anxiety, based on the contributing role of early experiences of diminished control in increasing the likelihood of interpreting future events as being out of one’s control (Chorpita & Barlow, 1998). The Anxiety Control Questionnaire – Revised (ACQ-R; Brown et al., 2004) assesses perceived emotional control and its specific factors: control of emotion, threat, and stress control. Both AS and deficits in perceived control have been shown to predict panic disorder symptoms, and their interaction may increase symptom severity (Bentley et al., 2013). Perceived threat control seems to moderate the relationship between AS and agoraphobia, and perceptions of emotions and situations as being uncontrollable and unpredictable may be a generalized psychological vulnerability factor (White et al., 2006).

Perceived control is receiving increasing support as a treatment target that may enhance treatment outcomes. For example, perceived control was demonstrated as a mediator of change in panic disorder symptoms in both capnometry-assisted respiratory training and cognitive training, suggesting that treatment aiming to enhance perceptions of control over external and internal experiences may yield greater reductions in panic symptoms (Meuret et al., 2010). An acceptance-based protocol targeting mechanisms associated with GAD yielded significant improvements in perceived control over anxiety and tolerance of uncertainty, and decreases in emotion regulation difficulties and fears of emotional responses, suggesting that perceived control may be multifaceted and that learning to accept and cope with anxiety may increase a sense of efficacy (Treanor et al., 2011).

**Intolerance of Uncertainty**

Considerable evidence points to intolerance of uncertainty (IU) as a trans-diagnostic vulnerability and maintaining factor across anxiety disorders (social anxiety, panic, agoraphobia, GAD, and OCD) and depression (e.g., Boelen & Reijntjes, 2009; Carleton et al., 2012; Mahoney & McEvoy, 2012). Varying definitions and conceptualizations of IU exist, including a view of it as “the tendency to react negatively on an emotional, cognitive, and behavioral level to uncertain situations and events” (Dugas et al., 2004, p. 143). Given that some degree of uncertainty exists in everyday life IU “is likely to lead to heightedened distress and worry” (Buhr & Dugas, 2006, p. 223). Some dimensions of IU overlap with intolerance of ambiguity (IA; Grenier et al., 2005), though the constructs are different: IA involves experiencing current situations as threatening due to their ambiguous features; IU involves a sense of threat related to the unpredictability of future events (Grenier et al., 2005). This distinction
may be helpful when determining the content and triggers of core fears or beliefs underlying problematic behaviors.

IU has been implicated in the development and maintenance of worry (Behar et al., 2009; Buhr & Dugas, 2006; Meeten et al., 2012) and may pose a cognitive vulnerability to worry via biased information processing (Koerner & Dugas, 2008; van der Heiden et al., 2010). The IU model of GAD (Dugas et al., 1998) also implicates positive beliefs about worry, negative problem orientation, and cognitive avoidance as constructs contributing to clinical worry (Dugas et al., 2005). A cognitive behavioral protocol (CBT-IU) targeting IU and its related constructs (worry, metacognitive beliefs about worry, negative problem orientation, cognitive avoidance) has been shown to be efficacious in treating GAD (Robichaud, 2013).

The Intolerance of Uncertainty Scale – 12 (IUS-12; Carleton, Norton, et al., 2007) assesses reactions to uncertainty, ambiguous situations, and the future. It has two factors: prospective anxiety (anticipation of uncertainty) and inhibitory anxiety (inaction in the face of uncertainty). Prospective anxiety has been associated with GAD and OCD symptoms, while inhibitory anxiety shows associations with social phobia, panic disorder, agoraphobia, and depression (McEvoy & Mahoney, 2011). Specific components of IU, including situation-specific IU, may play important roles in the maintenance of different disorders (Mahoney & McEvoy, 2012).

IU and perfectionism combine as a factor underlying OCD symptomatology, which is measured using the Obsessive Beliefs Questionnaire – 44 (OBQ-44; OCCWG, 2005). This measure defines IU as the “belief that uncertainty, newness, and change are intolerable because they are potentially dangerous” (OCCWG, 1997, p. 669). Because IU correlates with GAD, OCD, and major depression, it potentially sheds light on comorbidity among those conditions and implicates IU as a general cognitive vulnerability to disorders of negative affect (Gentes & Ruscio, 2011).

**Perfectionism**

Perfectionism is a transdiagnostic risk and maintaining factor for anxiety disorders, depression, and eating disorders and is associated with poorer treatment outcomes for those conditions (Egan et al., 2011). Perfectionism also has been linked to body dysmorphic disorder, chronic fatigue syndrome, bipolar disorder, and suicidal ideation (Egan et al., 2012), as well as OCD (see Frost et al., 2002, for a review), social anxiety (see Frost et al., 2010, for a review), and eating disorders (see Bardone-Cone et al., 2007, for a review). In PTSD,
elevated perfectionism seems to be mediated by rumination (Egan et al., 2013), demonstrating one of many ways that vulnerability and response mechanisms interact.

Definitions of perfectionism vary according to the measures used to assess the construct. In OCD it has been defined as “the tendency to believe there is a perfect solution to every problem, that doing something perfectly (i.e., mistake-free) is not only possible, but also necessary, and that even minor mistakes will have serious consequences” (OCCWG, 1997, p. 678). In the OBQ-44, perfectionism is measured in conjunction with IU (OCCWG, 2005). Other measures that assess perfectionism outside the context of a specific disorder include the Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990) and the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett 1991), which incorporate different and overlapping dimensions of perfectionism. Personal standards and evaluative concerns best capture the two factors supported in the literature, with self-critical evaluative concerns being an important focus of clinical attention (Dunkley et al., 2006).

Shafran and colleagues (2002) proposed a clinical definition of perfectionism emphasizing “overdependence of self-evaluation on the determined pursuit of personally demanding, self-imposed, standards in at least one highly salient domain, despite adverse consequences” (p. 778). This construct incorporates self-criticism when those standards are not met, differentiating it from individuals’ healthy desire to excel and achieve high standards. The Clinical Perfectionism Questionnaire (CPQ; Fairburn et al., 2003) assesses the degree to which self-worth is established through achieving high standards, avoidance of performance-related goals, and feelings of failure. Because it is both a TDM and stand-alone problem, clinical perfectionism often is a primary treatment target. Treatment outcomes for clinical perfectionism, including reduced anxiety, depression, and eating disorders, underscore its relevance as a transdiagnostic mechanism (Egan et al., 2012; Riley et al., 2007; Steele et al., 2013).

**Fear of Evaluation**

Evaluative concerns often accompany presenting problems, such as transdiagnostic worry, shame, and embarrassment related to psychological symptoms. Biopsychosocial conceptualizations of shame frame it in the context of feared rejection by others (Gilbert, 2005). Socially prescribed perfectionism, which involves concerns that others have high standards and one will be criticized or rejected if not perfect, can play a role in depression and other clinical problems (Hewitt & Flett, 2002).
Fear of negative evaluation (FNE) is a core feature of social anxiety disorder (D. M. Clark & Wells, 1995; Rapee & Heimberg, 1997) and may be assessed using the Brief Fear of Negative Evaluation Scale – 2 (BFNE-2; Carleton, Collimore, et al., 2007). Fear of positive evaluation (FPE) involves a sense of dread associated with favorable and public evaluation due to social comparisons between self and others and can be measured by the FPE Scale (FPES; Weeks et al., 2008). FPE seems to be a distinct yet related component of social anxiety disorder (Rodebaugh et al., 2012; Weeks et al., 2010), highlighting a general fear of evaluation in social anxiety disorder (Weeks et al., 2012). FPE may play a role in cognitive misappraisals (e.g., discounting positives) that can strengthen negative self-beliefs (Weeks et al., 2008).

FNE has been shown to increase the risk and symptoms of bulimia via its association with an internalized standard of ultraslenderness and the feared criticism and negative affect experienced when that standard is not achieved (Utschig et al., 2010). FNE and social appearance anxiety related to body shape (Hart et al., 2008) may act as vulnerabilities for social anxiety and eating disorders, and interventions targeting FNE may reduce risks for developing those problems (Levinson et al., 2013). Strong correlations between FNE and probability of developing PTSD have been demonstrated among individuals exposed to trauma (Collimore et al., 2009) and may explain why PTSD patients who also have social anxiety disorder report more guilt and shame than those without that disorder (Zayfert et al., 2005).

**Negative Problem Orientation**

Problem orientation is defined as “the set of relatively stable cognitive-affective schemas that represent a person’s generalized beliefs, attitudes, and emotional reactions about problems in living and one’s ability to successfully cope with such problems” (Nezu et al., 2013, p. 11). One component of problem solving, negative problem orientation (NPO), has been defined as a tendency to perceive problems as threats, to expect problems to be unsolvable, to doubt one’s ability to successfully cope with problems, and to become frustrated and upset when faced with problems or negative emotions—all of which can undermine motivation and the ability to engage in effective problem solving in various life domains (Nezu et al., 2013).

The Social Problem-Solving Inventory – Revised (SPSI-R; D’Zurilla et al., 2002) assesses NPO as one of five social problem-solving factors, including positive problem orientation (Maydeu-Olivares & D’Zurilla, 1996), whereas the Negative Problem Orientation Questionnaire (NPOQ; Robichaud &
Dugas, 2005) measures NPO as a sole construct reflecting a set of negative beliefs pertaining to problems and problem-solving ability.

Problem-solving therapy has been effective in treating depression, especially when it includes training in positive problem orientation along with training in problem-solving skills (Bell & D'Zurilla, 2009). NPO is seen as a cognitive vulnerability to GAD (Koerner & Dugas, 2006) and correlates with both GAD and OCD symptoms (Fergus & Wu, 2010). NPO has been identified as the single cognitive variable that correlates with mood and anxiety symptoms, including depression, social anxiety disorder, GAD, and OCD, pointing to the possibility that it may confer a general vulnerability to mood and anxiety symptoms (Fergus & Wu, 2011).

**Inflated Responsibility and Threat Estimation**

Multiple pathways have been proposed in the etiology of inflated responsibility beliefs (Salkovskis et al., 1999), which influence interpretation of intrusive thoughts and relate to rumination in obsessional problems (e.g., Julien et al., 2006; Salkovskis et al., 2000). Together, inflated responsibility and overestimation of threat are a core factor in OCD, and this factor is measured by the OBQ-44 (OCCWG, 2005). Salkovskis and colleagues (2000) developed the Responsibility Attitude Scale (RAS), which measures general beliefs about responsibility, and the Responsibility Interpretations Questionnaire (RIQ), which measures frequency of and belief in interpretations of intrusive thoughts about possible harm. Rachman and colleagues (1995) developed the Responsibility Appraisal Questionnaire (RAQ), which assesses multiple aspects of inflated responsibility beliefs, including responsibility for harm, responsibility in social contexts, positive outlook toward responsibility, and thought-action fusion. Inflated responsibility is multifactorial, with only one factor (TAF) being especially relevant to certain aspects of OCD (Rachman et al., 1995). Some have argued that responsibility beliefs should be subsumed under metacognition as a factor contributing to OCD (Myers & Wells, 2005).

The factor of inflated responsibility and overestimation of threat (as measured by the OBQ-44) has been shown to be a predictor of the tendency to worry about possibly having an illness (Wheaton et al., 2010). This correlation with health anxiety is consistent with the finding that inflated responsibility and threat estimation is not specific to OCD but applies to anxiety in general (Tolin et al., 2006). Several beliefs implicated in OCD (intolerance of uncertainty, threat estimation, responsibility, and perfectionism) were more inflated in a medical sample than in OCD patients, suggesting that dysfunctional
beliefs in these domains are associated with other stressors, including physical illness (Baptista et al., 2011). Considering mechanisms of threat bias and responsibility for harm is relevant to case formulation approaches to treating anxiety, depression, and worry (Persons et al., 2013).

**Sensitivity to Illness or Injury**

Reiss’s expectancy model of fear (Reiss & McNally, 1985) identified fear of injury or illness as one of three fundamental fears that “are believed to underlie sensitivities to inherently aversive threats, and therein, to represent the vulnerabilities from which common fears (e.g., fear of flying, fear of hospitals) arise” (Carleton et al., 2006, p. 340). The Illness/Injury Sensitivity Index – Revised (ISI-R; Carleton et al., 2006) assesses fears or catastrophic appraisals related to illness and injury, which may be vulnerability factors contributing to fears and beliefs in health anxiety and specific phobias. Other assessment measures (reviewed in Taylor & Asmundson, 2004) are available to assess multiple facets of health anxiety, which include different vulnerability and response mechanisms related to health anxiety concerns. When patients present with certain phobias (e.g., germs, air travel), health anxiety, and chronic pain, it is prudent to assess sensitivity to illness or injury as a potential TDM.

**Multidimensional Construct**

The degree to which individuals can regulate emotions involves a complex interplay of affective, cognitive, behavioral, and physiological processes and has been tied to numerous developmental tasks across the life span (Diamond & Aspinwall, 2003; Gross & Thompson, 2007). Related to emotion regulation, distress tolerance—or, more accurately, intolerance—is implicated as a risk and maintaining factor underlying disorders of anxiety (Keough, Riccardi, et al., 2010), mood (Clen et al., 2011), personality (Gratz & Tull, 2011), substance use (Richards et al., 2011), and eating (Anestis et al., 2011). For example, low distress tolerance (DT) may amplify the experience of anxiety in clinical presentations (Schmidt et al., 2011) and is associated with response mechanisms such as behavioral withdrawal, depressive rumination, and suppression or avoidance of emotions (Clen et al., 2011; Vujanovic, Bonn-Miller, et al., 2011). Regardless of presenting problem, targeting DT is an important aspect of treatment planning.
**Distress Tolerance**

DT refers to the ability to tolerate aversive internal states such as negative emotions and physical discomfort (Leyro et al., 2010). It may be assessed via the Distress Tolerance Scale (DTS; Simons & Gaher, 2005) or the Distress Intolerance Index (DII; McHugh & Otto, 2012). DT is associated with limited availability of emotion regulation strategies, collectively contributing to experiential avoidance (McHugh et al., 2013). While experiential distress may include states that are cognitive (e.g., intrusive thoughts or images), behavioral (e.g., action urges), and physiological or somatic (e.g., panic-related interoceptive arousal), intolerance of negative emotional states is a common thread that seems to bear the most relevance to psychopathology (A. Bernstein et al., 2009; Simons & Gaher, 2005).

Appraisals of emotional experiences and individuals’ perception of their inability to tolerate distress or distress-inducing contexts influence how they respond to those emotions and contexts (Leyro et al., 2010). Thus, the perception *I can't handle this*, where “this” is one more minute of depression, trauma flashbacks, or excruciating withdrawal from alcohol, often elicits response mechanisms that perpetuate a repeating pattern of psychological problems, such as behavioral withdrawal (e.g., social isolation), emotional avoidance (e.g., dissociation), cognitive avoidance (e.g., thought suppression), or emotion-driven behaviors (e.g., self-harm). Trafton and Gifford (2011) postulated that neural substrates underlying reward-based learning and responding may mediate distress tolerance and contribute to maladaptive behavioral responses (e.g., drinking, bingeing and purging, cutting). Low DT has been correlated with nonsuicidal self-injury, whereas high DT may actually potentiate suicide attempts by increasing the ability to consider death and dying by one’s own hand (Anestis et al., 2013), highlighting the importance of targeting DT in treatment.

DT has been conceptualized as an overarching construct encompassing distinct domains of varying ability to tolerate uncertainty, ambiguity, frustration, negative emotion, and physical discomfort (Leyro et al., 2010). These lower-order constructs have been implicated in the etiology of numerous psychological problems. For example, intolerance of negative emotional states correlates with substance abuse (Richards et al., 2011), bulimia (Anestis et al., 2011), and PTSD (Vujanovic, Bernstein, et al., 2011). The contribution of intolerance of uncertainty to DT (Leyro et al., 2010), along with its role in OCD (OCCWG, 1997), may explain why lower DT is associated with increased obsessions in both clinical and nonclinical samples (Macatee et al., 2013).
Discomfort intolerance (Schmidt et al., 2006), or the inability to tolerate unpleasant (not necessarily painful) physical sensations, and DT seem to be distinct yet related processes (Mitchell et al., 2013), and discomfort intolerance has been implicated as a risk factor in panic and other anxiety disorders (Schmidt, Richey, et al., 2007).
We view response mechanisms as patterns of responses to the activation of vulnerability mechanisms. Many response mechanisms reflect attempts to cope with or avoid unpleasant emotional states, compensate for perceived deficits, or control outcomes. They reinforce and contribute to feedback loops with vulnerability mechanisms to maintain and exacerbate presenting problems. For example, a response such as avoiding a feared situation can strengthen negative self-schemas, negative problem orientation, vigilance for threat cues, and numerous other mechanisms, promoting avoidance as a strategy for coping with other stressors. Many response mechanisms represent defining symptoms of disorders, such as avoidance in phobias, worry in GAD, compulsions in OCD, and emotion-driven behaviors such as self-harm in BPD.

Experiential Avoidance

Experiential avoidance (EA) is defined as “the phenomenon that occurs when a person is unwilling to remain in contact with particular private experiences (e.g., bodily sensations, emotions, thoughts, memories, behavioral predispositions) and takes steps to alter the form or frequency of these events and the contexts that occasion them, even when doing so creates harm” (S. C. Hayes
et al., 1996, p. 1154). While EA incorporates the interconnectedness of all private experiences, specific aspects (e.g., emotions, cognitions) often are the focus of treatment (S. C. Hayes et al., 1996). Acceptance-based interventions were developed to reduce EA by targeting behavioral regulation strategies aimed at controlling distressing emotions, thoughts, and bodily states, and increasing willingness to remain in contact with those internal experiences (S. C. Hayes, 1994). Many psychological problems can be viewed as expressions of EA (S. C. Hayes et al., 1996) and psychological inflexibility, both of which can be assessed with the Acceptance and Action Questionnaire – 2 (AAQ-2; Bond et al., 2011).

Avoidance and Escape Strategies

Avoidance and escape behaviors are a defining feature of many anxiety disorders. They contribute to multiple psychological problems via negative reinforcement by allowing individuals to discontinue or avoid unpleasant or threatening situations, sensations, thoughts, or feelings. For example, if a person becomes highly anxious when exposed to spiders, then escaping the situation provides an immediate reduction in emotional and physiological discomfort, which negatively reinforces future avoidance of other situations where the likelihood of encountering spiders is high. Understanding cognitions related to avoidance, such as the feared outcomes of encountering whatever is being avoided, provides important information about the maintaining factors underlying specific avoidance behaviors (Salkovskis, 1991). Thus, elucidating what is being avoided and why (e.g., If I attend the party, no one will talk to me and I’ll look like a loser) sheds important light on the function of avoidance in maintaining patients’ problems.

Any avoidance behavior can have multiple explanations depending on its intended functions. For example, procrastination behaviors arise in the context of avoiding aversive experiences such as emotional states associated with a specific task, activation of incompetency schemas, perfectionism beliefs, or discomfort associated with uncertainty or negative problem orientation. It also is conceivable that individuals avoid or delay certain tasks because of emotion dysregulation and low distress tolerance (e.g., signing divorce papers, discussing a job performance review) or executive functioning deficits (e.g., completing homework, filing a tax return). Thus, identifying the reasons for avoiding situations and their feared consequences elucidates the functional properties of avoidance and escape behaviors in those contexts, which informs treatment decisions.
Safety Seeking

Safety-seeking behaviors are avoidance responses that are also related to feared consequences (Salkovskis, 1991). They reduce discomfort and are perceived as contributing to the prevention of unwanted and, in some cases, potentially disastrous consequences. For example, someone with social anxiety may avoid eye contact, overprepare a speech, or choose clothing to avoid showing red or blotchy skin in efforts to avert negative attention and embarrassment. Patients with body dysmorphic disorder engage in checking behaviors and efforts to camouflage perceived deficits (Neziroglu et al., 2008). Individuals prone to panic often carry prescribed benzodiazepine medications when engaging in feared situations (e.g., air travel), even though they may not actually take them.

Safety-seeking behaviors traditionally have been viewed as countertherapeutic because they impede learning that feared negative outcomes, including feared consequences of experiencing anxiety, are highly unlikely (Salkovskis, 1991). Exposure-based treatments seek to extinguish safety behaviors, yet Rachman and colleagues (2008) found that judicious use of safety behaviors, especially early in treatment, may actually facilitate approach toward feared stimuli, promote self-efficacy, and allow greater integration of corrective information via disconfirmatory experiences.

Reassurance Seeking

Reassurance-seeking behaviors aim at reducing and escaping anxiety. Patients with OCD often seek reassurance to relieve anxiety related to uncertainty, feelings of responsibility, or beliefs about the meaning of their thoughts. Individuals with GAD may seek reassurance to relieve anxiety associated with uncertainty and the content of their worry thoughts. Reassurance seeking also occurs in the context of panic sensations, health concerns, and perceived negative evaluation by others. As with all avoidance and escape behaviors, reassurance seeking may provide temporary relief through negative reinforcement, prompting and strengthening further reassurance seeking, but since certainty is unattainable and relief quickly dissipates, these responses are not a long-term solution and only worsen problems.

Compulsions

Compulsions are defined as repetitive behaviors or mental acts performed in the service of reducing anxiety or distress and are central to OCD (American Psychiatric Association, 2013). Behaviors such as checking, counting, and
repeating are responses to perceived threat and reflect attempts to escape distressing emotional states or potentially avoid a range of feared negative consequences. Compulsions often are performed in a ritualistic manner and have specific structural requirements (e.g., checking the stove five times before leaving for work, wearing a prescribed outfit on a given day of the week).

**Behavioral (Situational) Avoidance**

Behavioral avoidance of situations that activate feelings of discomfort is a common transdiagnostic mechanism; it may involve diverse stimuli, such as public restrooms, “dirty” objects, public speaking, freeways, trauma cues, and more. Behavioral avoidance may be due to beliefs and cognitive misappraisals regarding self, others, or situations, with patients thinking that joining activities will not yield relief or others will view them negatively (A. T. Beck et al., 1979). Assessment focuses on the feared consequences of engaging in situations that trigger distress. For example, avoiding air travel could be due to fears of dying in a plane crash, having a panic attack and feeling uncomfortable for long periods of time, or having a panic attack and feeling embarrassed when other passengers notice. Sometimes patients fear any situation that might evoke anxiety or other distressing emotions due to beliefs that experiencing those feelings means they are weak or will be unable to handle the emotions. Although behavioral avoidance is not considered a primary component of GAD, patients with GAD often engage in avoidance behaviors such as not watching the news and avoiding certain social situations because of their propensity to worry (Beesdo-Baum et al., 2012).

Escape and avoidance behaviors such as inactivity, withdrawal, and inertia often accompany depression (N. S. Jacobson et al., 2001) and are the focus of behavioral activation strategies used to improve mood and build a sense of mastery (Martell et al., 2010). Escape from emotional pain may include exiting events, sleeping excessively, and using substances. Depression and shame related to mood, trauma, eating, personality, and other disorders may lead to isolation and social withdrawal to avoid shame-evoking and distressing stimuli (Gilbert & Irons, 2005; Tangney & Dearing, 2002; Zayfert et al., 2005). Individuals seeking to avoid emotional pain often narrow their behavioral repertoires to an extent that impedes valued living and intensifies negative affect (S. C. Hayes et al., 2012). This is consistent with findings that avoidance of important life tasks, pleasurable activities, and social interactions worsens emotional distress and functional impairments via decreased opportunities for positive reinforcement (N. S. Jacobson et al., 2001).
Cognitive Avoidance

Cognitive avoidance strategies seek to reduce distress associated with disturbing thoughts and include maladaptive efforts to control, suppress, distract from, neutralize, or replace thoughts.

Thought Control

Thought control strategies are used by patients across a range of emotional disorders (Purdon, 1999). Metacognition plays a key role in interpreting thoughts as significant and important to control, and the Metacognitions Questionnaire – 30 (MCQ-30; Wells & Cartwright-Hatton, 2004) may be used to assess beliefs about the consequences of not controlling thoughts (and other metacognitions). Thought control strategies are common to patients with OCD (Abramowitz et al., 2003), and beliefs that thought control is possible and necessary appear in association with OCD more than with other anxiety disorders (Tolin et al., 2006). When patients experience cognitive intrusions as threatening, such as in OCD and PTSD, responses may be evoked to control, neutralize, or replace them in an effort to regulate emotions and reduce distress. The Thought Control Questionnaire (TCQ; Wells & Davies, 1994) measures strategies used for coping with unwanted thoughts.

Thought Suppression

Many individuals try to suppress unwanted thoughts to reduce the emotional distress accompanying them, though this typically yields a paradoxical effect: suppression efforts actually increase thoughts (Wegner et al., 1987). The White Bear Suppression Inventory (WBSI; Wegner & Zanakos, 1994) measures dispositional tendency to suppress unwanted thoughts. Reviews on thought suppression and its relation to psychopathology (most notably anxiety and depression) have underscored the clinical relevance of elucidating motivations for thought suppression, responses to thought recurrence, and interpretations of unsuccessful efforts at thought suppression (Abramowitz et al., 2001; Magee et al., 2012). Thought suppression is associated with increased emotional distress across multiple problems (see Wenzlaff & Wegner, 2000, for a review). Negative interpretations of post-traumatic intrusions (e.g., I’m going crazy) predict behavioral avoidance, thought suppression, and rumination—all of which increase emotional distress and arousal, interrupt emotional processing, and intensify PTSD severity (Steil & Ehlers, 2000). Efforts to suppress
trauma-related cognitions are linked with increases in anxiety, depression, and negative affect (J. G. Beck et al., 2006) and mediate the relationship between negative mood and PTSD in sexual trauma (Rosenthal et al., 2006).

**Worry**

Borkovec’s avoidance model of worry and GAD (Borkovec et al., 2004) posits worry as a cognitive avoidance mechanism that inhibits mental imagery and somatic and emotional activation, preventing emotional processing of fear. Worry acts as a cognitive avoidance strategy to remove a sense of threat, and in GAD it often helps individuals avoid more distressing emotional experiences (Borkovec & Roemer, 1995). The intolerance of uncertainty model of GAD postulates that cognitive avoidance, along with worry and negative problem orientation, is triggered by intolerance of uncertainty and is negatively reinforcing, thereby preventing modification of threat appraisals (Dugas et al., 2005).

**Interoceptive (Somatic) Avoidance**

Interoceptive avoidance is the avoidance of somatic sensations that could trigger panic attacks (Barlow, 2002). Patients often go to great lengths to avoid uncomfortable and feared somatic sensations and physiological arousal. Feared consequences fueling avoidance seem related to distress tolerance (Leyro et al., 2010) and include beliefs that the individual will not be able to tolerate uncomfortable sensations or that the sensations, once provoked, may not remit (Schmidt et al., 2011). Patients may fear imminent health threats (e.g., heart attack), loss of cognitive functioning, or incapacitation due to beliefs that physiological sensations indicate threat or danger. To avoid physiological sensations, patients may avoid exercise, sex, caffeine, or any substance that may alter their perception of control over physiological sensations.

**Emotional Avoidance**

Emotions provide important information about organisms and their internal and external environment, functioning to motivate and guide behavior (Gross, 1998). Emotions and their regulation involve complex multisystemic processes spanning subjective experience, cognition (attention and appraisal), physiology (stimulus-controlled limbic responses and cortical regulatory
processes), and behavioral responses (Gross & Thompson, 2007). Most patient problems involve an inability to regulate emotions within one or more of these domains. Emotional avoidance targets unpleasant emotional states, often due to fears about the consequences of experiencing negative emotions, and may be expressed via attempts to suppress emotions, dissociate from them, or substitute different emotions (e.g., anger instead of shame or disappointment).

The Affective Control Scale (ACS; Williams et al., 1997) measures distress about and fear of losing control while experiencing strong affective states. Exposure-based cognitive therapy was developed to target emotional avoidance in depression (A. M. Hayes et al., 2005), though its principles also seem relevant to avoidance of other emotional states. Patients are encouraged to tolerate the fear of sadness (Taylor & Rachman, 1991), rather than avoid negative emotions, so themes of helplessness, defectiveness, and failure can be addressed (A. M. Hayes et al., 2007). Emotional avoidance driven by fears of relapse can reinforce escape and avoidance behaviors in previously depressed patients (Persons & Davidson, 2010). Similarly, formerly depressed patients report greater emotional avoidance than patients without histories of depression (Brockmeyer, Holtforth, et al., 2012), which is consistent with the finding of reduced emotional acceptance in depressed patients (Campbell-Sills et al., 2006).

Emotional avoidance is intricately related to emotion regulation difficulties (Campbell-Sills & Barlow, 2007; Gross & Thompson, 2007). For example, deliberate self-harm may reflect strong experiential avoidance-response tendencies, which are strengthened and exacerbated by poor distress tolerance and deficits in emotion regulation (Chapman et al., 2006). Not surprisingly, individuals who believe they can regulate mood and negative emotions do not perceive the need to avoid emotional states, therefore demonstrating less experiential avoidance (Brockmeyer, Holtforth, et al., 2012).

Dissociation is an extreme form of emotional avoidance that results in fragmented experiences of the self (S. C. Hayes et al., 2012). It can be assessed with the Trauma Symptom Inventory – 2 Dissociation Subscale (Briere, 2011) or the Dissociative Experiences Scale (DES; E. M. Bernstein & Putnam, 1986). Dissociation is highly correlated with alexithymia (Grabe et al., 2000) and serves the function of avoiding emotional distress and trauma-related cues in PTSD (Foa et al., 2007). Peritraumatic dissociation and experiential avoidance predict PTSD and associated problems (Kumpula et al., 2011). BPD patients also dissociate to avoid aversive internal states associated with emotion dysregulation (Stiglmayr et al., 2001), which contributes to self-harm and comorbid dissociative disorders (Korzekwa et al., 2009).
Emotion-Driven Behaviors

Barlow and colleagues (Campbell-Sills & Barlow, 2007; Barlow et al., 2011) describe emotion-driven behaviors as counterproductive responses to emotion-driven action tendencies, which typically are contextually inappropriate and inadvertently increase the emotions patients are trying to avoid. For example, patients with BPD often experience self-harm urges in response to (and in an effort to avoid or escape) distressing emotions such as shame or anger (Linehan, 1993a). Through negative reinforcement, many emotion-driven behaviors are strengthened because they initially reduce the intensity of emotional pain. For example, deliberate self-harm results in immediate relief of emotional distress (Chapman et al., 2006). Consequently, emotion-driven behaviors tend to increase, interrupting opportunities for new learning that could help challenge inaccurate beliefs about behaviors, emotions, and personal resilience, and lead to improved coping. Moreover, emotion-driven behaviors have neurophysiological correlates that make them particularly difficult to treat because of powerful intrinsic reward systems (Siegle et al., 2007). Targeting these response mechanisms and teaching skills to supplant them can reduce patients’ avoidance behaviors and enhance coping (Barlow et al., 2011; Linehan, 1993a).

Cognitive Misappraisals

Cognitive misappraisals involve distortions in thinking and include overgeneralizing, all-or-none thinking, personalizing, and mind reading, among others (see J. S. Beck, 2011; Burns, 1999). Unlike schemas, cognitive misappraisals are specific distortions related to situational events, though distortions often are activated by schemas. For example, if a patient’s schemas include beliefs that she is unlovable and others are critical and rejecting, automatic thoughts such as Sue never wants to spend time with me or I must have done something wrong could result from a friend declining a lunch invitation. These cognitive misappraisals strengthen negative core beliefs and can lead to withdrawal or avoidance behaviors, perpetuating a self-reinforcing cycle of emotional pain, experiential avoidance, and impaired functioning (A. T. Beck et al., 1979; S. C. Hayes et al., 2012). Understanding the cognitive misappraisals associated with specific problems can elucidate potential thinking errors for individual patients. Aaron Beck (1976) observed associations between the content of cognitive misappraisals and different disorders, such as the link among themes of loss, negative expectations, and depression. Distorted mental images and negative appraisals
of body image contribute to body dysmorphic disorder symptoms (Neziroglu et al., 2008). Bipolar patients often have multiple and contradictory interpretations of mood state fluctuations and how they affect functioning and behavior, which may potentiate and maintain symptoms (Kelly et al., 2011). Similarly, threat monitoring and negative interpretation of symptoms in PTSD disrupt healthy processing of trauma (Wells & Sembi, 2004).

Cognitive misappraisals involving overestimation of threat are characteristic of anxiety disorders (A. T. Beck et al., 1985; Tolin et al., 2003). For example, catastrophic misappraisals of bodily sensations are related to panic disorder (D. M. Clark, 1986), whereas health anxiety concerns involve negative appraisals of bodily changes and sensations related to future dangerous consequences (Warwick & Salkovskis, 1990). Individuals with social anxiety hold negative self-images, along with appraisals that these distorted images accurately reflect how they appear and are evaluated by others (D. M. Clark & Wells, 1995; Rapee & Heimberg, 1997). Prominent features of social anxiety symptoms include cognitive misappraisals of perceived social danger and threat, negative evaluations of social performance, and predictions of consequences of negative evaluation by others.

**Attentional Focus**

Attentional bias with hypervigilance toward threat is well established as a mechanism underlying anxiety disorders (Barlow, 2002). Attentional bias involves fixed attention on threat-related stimuli and is part of the cognitive attentional syndrome (Wells, 2009), which consists of a pattern of responses to negative thoughts and beliefs (rather than flexibility in responding to them) that includes fixed attention, worry, rumination, and unhelpful self-regulatory strategies. Ingram (1990) posited that self-focused attention (SFA) combined with attention regulation deficits contributes to psychopathology. For example, individuals with high SFA demonstrate poor problem solving (Woodruff-Borden et al., 2001) and are prone to anxiety and depression (Muraven, 2005). SFA correlates strongly with negative affect (Mor & Winquist, 2002), and negative SFA fuels depressive rumination and mood deterioration in depression (Nolen-Hoeckema, 1991). Models of social anxiety implicate SFA in generating and maintaining anxiety and prohibiting processing of corrective information that could challenge social fears (D. M. Clark & Wells, 1995; Rapee & Heimberg, 1997), and targeting SFA shows promising results in treating social anxiety disorder (Schreiber et al., 2013).
As with cognitive misappraisals, patients likely will focus attention on specific concerns. Panic disorder and health anxiety are associated with elevated vigilance for bodily changes and sensations (Deacon & Abramowitz, 2008), which also has been demonstrated in hypochondriasis, GAD, and medical utilization and safety-seeking behaviors related to health concerns (Olatunji et al., 2007). Attention to and vigilance toward threats in the environment that may indicate negative evaluation by others contribute to social anxiety (Rapee & Heimberg, 1997), and both internal and external attentional focus may be related to social anxiety (Schultz & Heimberg, 2008). Similarly, self-focused and selective attention to negative mental imagery and distorted body image are defining features of body dysmorphic disorder, along with comparisons to the appearance of others (Neziroglu et al., 2008).

**Attributional Bias**

Attribution theory describes how individuals explain their own and others’ behavior (Jones et al., 1971). Causal attributions play a key role in motivation and emotion, especially within the context of perceived causes of success and failure (Weiner, 1985). Attributional style may contribute to exacerbation of both depressive and hypomanic symptoms in bipolar individuals when combined with negative and positive life events, respectively (Mansell et al., 2011). Maladaptive attributions often arise in response to feelings of guilt and shame (Tangney & Dearing, 2002), which may link with vulnerability mechanisms, such as emotion regulation deficits (Linehan, 1993a) or negative schemas (Young et al., 2003). The propensity to experience shame has been tied to numerous psychological problems, including anxiety, depression, PTSD, eating disorders, obsessive-compulsiveness, psychoticism, and addictions (for reviews, see Stuewig et al., 2010; and Van Vliet, 2009). Reducing shame and internalizing attributions (e.g., self-criticism) can lead to increased empathy and distress tolerance via compassion-focused interventions that activate social affiliative and soothing neural systems (Gilbert & Irons, 2005).

**Internalizing**

Self-blame, self-criticism, and other self-attacking behaviors accompanying feelings of guilt and shame are associated with numerous psychological
problems (Tangney & Dearing, 2002). Shame frequently accompanies PTSD (Cloitre et al., 2005; Lee et al., 2001), especially in the context of nonsupportive or blaming responses by caregivers (Fletcher, 2011), and may play a key etiological role in PTSD following interpersonal trauma (La Bash & Papa, 2013). Memories of shaming experiences that become central to self-identity play an important role in paranoia and depression, the latter of which is mediated by self-criticism (Pinto-Gouveia et al., 2013). The potency of self-blame—and its importance as a treatment target—may be seen in both its dampening effect on genetic risk factors and its potentiating effect on environmental variables in ADHD (Nikolas et al., 2012).

Internalizing attributions in response to shame are associated with emotion dysregulation and poor self-concept in BPD (Rüsch et al., 2007). Shame can predict BPD symptoms via the pathways of anger rumination and anger (Peters et al., 2013) and may contribute to depression, dissociation, and complex PTSD in trauma survivors (Fletcher, 2011). Individuals who explain personal trauma with self-blaming attributions experience shame, which activates negative schemas, exacerbates symptoms, and contributes to their avoidance of seeking treatment (Lee et al., 2001). Self-directed anger associated with shame has been linked with fear of negative evaluation and social anxiety (A. T. Beck et al., 1985; Gilbert et al., 1994), and self-loathing has been linked with obesity and eating disorders (Edman et al., 2011; Fairchild & Cooper, 2010).

**Externalizing**

Judging and blaming others is a maladaptive coping style that is associated with emotional and behavioral problems in both clinical and nonclinical populations (Tangney & Dearing, 2002). As with internalizing attributions, externalizing attributions may be a response to feeling shamed (Van Vliet, 2009) and can generate behavioral problems such as school bullying (Ahmed & Braithwaite, 2004). When individuals respond to shame by judging or blaming others, they may be more prone to anger, hostility, and aggression (Bennett et al., 2005), implicating externalization of blame as an important treatment target across a range of problems. For example, externalization of blame was shown to mediate significant positive correlations between shame and aggression (both physical and verbal) among independent samples of college students, adolescents, jail inmates, and at-risk youth (Stuewig et al., 2010).
Repetitive Negative Thinking

Repetitive negative thinking, such as worry and rumination, involves problematic thinking styles rather than content. This TDM also includes post-event processing, with the content of thoughts being relevant to perceived failure in social and interpersonal contexts (D. M. Clark & Wells, 1995). Worry is focused on future-oriented repetitive thinking, while rumination involves repetitive patterns of thinking about past events. Although worry and rumination share similar features, they are distinct and distinguishable constructs (Nolen-Hoecksema et al., 2008). Associations recently have been demonstrated between repetitive negative thinking and metacognitions, cognitive avoidance, and thought control strategies (McEvoy et al., 2013). The Repetitive Thinking Questionnaire (RTQ; McEvoy et al., 2010) can assess repetitive negative thinking across anxiety and depressive disorders (Mahoney et al., 2012).

Worry

Worry is a hallmark feature of GAD and has been studied in relation to multiple mechanisms involved in maintaining psychological symptoms. The avoidance model of worry (Borkovec et al., 2004) posits that worry serves the functions of avoiding perceived threats, solving problems, and distracting from emotionally distressing thoughts, images, or sensations. The intolerance of uncertainty model of GAD frames worry as an attempt to avoid uncertainty; intolerance of uncertainty, along with negative problem orientation, positive beliefs about worry, and cognitive avoidance, contribute to worrying (Dugas et al., 2005). The metacognitive model of GAD (Wells, 1995, 1999) includes both positive beliefs (e.g., Worry is useful) and negative beliefs (e.g., Worry is uncontrollable and dangerous) about worry, and frequency of metaworry appears to be a defining feature of GAD (Wells, 2005). Negative metacognitive beliefs about worry lead to maladaptive responses that maintain worry, such as avoidance, reassurance seeking, and thought control strategies (Wells, 2005).

The Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990) commonly is used to assess the tendency to engage in excessive worry. The Why Worry – 2 (WW-2; see Hebert et al., 2014) can predict worry severity and assess beliefs that worry facilitates problem solving, enhances motivation, prevents negative emotion, prevents negative outcomes, and is a positive personality trait that may facilitate problem solving and protect against negative emotions in the
wake of negative events (Hebert et al., 2014). Assessing the perceived functions of worry is an important aspect of TDM hypothesis development.

**Rumination**

Nolen-Hoeksema (1991) proposed that individuals who respond to depression by repetitively focusing on their symptoms and the possible causes and consequences of those symptoms without making plans or taking steps to alleviate distress (i.e., ruminating) will experience prolonged and more severe depression. Rumination has been linked to symptoms of depression, anxiety, and eating disorders in undergraduates (Aldao & Nolen-Hoeksema, 2010), and it negatively impacts problem solving, goal-directed behavior, and social support (Nolen-Hoeksema et al., 2008). The transdiagnostic nature of rumination is highlighted by the numerous problems in which it appears: anxiety disorders, depression, PTSD, insomnia, eating disorders, hypochondriasis, alcohol abuse, self-harm, bipolar disorder, and psychosis (for reviews, see Ehring & Watkins, 2008, and Olatunji et al., 2013). Rumination and negative emotions interact in BPD to contribute to emotion dysregulation and experiential avoidance (see Baer et al., 2012, for a review), and rumination interacts with negative cognitive styles to predict duration of depressive symptoms (Nolen-Hoeksema et al., 2008). Rumination mediates the concurrent association between depressive and anxiety symptoms in adolescents, and in adults it mediates both predicted increases in anxiety based on existing depression and predicted increases in depression based on existing anxiety (McLaughlin & Nolen-Hoeksema, 2011). It also mediates the relationship between concern over mistakes (perfectionism) and PTSD (Egan et al., 2013) and acts as both a mediator and moderator of intolerance of uncertainty in depression and anxiety (Liao & Wei, 2011). Rumination can be assessed with the Response Styles Questionnaire (RSQ; Nolen-Hoeksema, 1991).

**Post-event Processing**

Post-event processing (D. M. Clark & Wells, 1995) involves cognitive reviews of social performance and interpersonal interactions, including previous events in which individuals perceive social failure. It has been studied as one of three transdiagnostic mechanisms within repetitive negative thinking, which has been linked to anxiety, depression, anger, shame, and general distress (McEvoy et al., 2010).
In this chapter we discuss the core principles underlying transdiagnostic case formulation. While our transdiagnostic road map’s flexibility in addressing a wide range of patient needs and clinical problems indicates its appeal, several principles are the key to its success. Most of these concepts, such as collaborative empiricism and flexibility within fidelity, will be familiar in that they are derived from cognitive behavioral theory, psychotherapy research, and case formulation. We also include informed consent, the multidimensional role of the therapeutic alliance in facilitating change, and the importance of ongoing training and consultation. Skillful creativity—the blending of therapist and patient technical and personal skills, talents, and creative energy with treatment interventions and adjunctive techniques such as imagery, metaphor, and multimedia—breathes life into our road map by allowing for the flexible and idiographic implementation of clinical interventions.

Throughout the remainder of the book we will illustrate how to utilize these principles in considering the range of potential vulnerability and response mechanisms when assessing patients’ problems and developing appropriate treatment plans to address and resolve them. Clinical vignettes will illustrate how to work with patients from intake through termination. While other
mechanisms could be considered for these examples, we focus on a select few to demonstrate how the transdiagnostic road map guides case formulation and treatment planning.

Collaborative Empiricism

Psychotherapy is inherently a partnership between clinician and patient. The therapist’s training and expertise determine the type and quality of treatment, yet without the patient’s active engagement and participation, the likelihood of success is minimal. Individuals have the most knowledge about their internal experiences such as emotions and thoughts, and their observations and feedback about symptoms, behaviors, clinical interventions, and interactions with the therapist are integral to the treatment process.

Cognitive behavioral therapy is rooted in empirical methods and collaboration between patient and therapist (Dattilio & Hanna, 2012; Overholser, 2011; Tee & Kazantzis, 2011). From the first point of contact, we strive to engage patients in a collaborative endeavor to understand their problems and develop effective strategies to tackle them while also emphasizing patients’ active participation across all phases of treatment. Through a balance of logical discussion and mutual decisions surrounding data collection and analysis, between-session tasks, and therapy goals, collaborative empiricism involves therapist and patient working together to explore hypotheses about the patient’s problems and develop a plan of action to tackle them (Dattilio & Hanna, 2012). Adopting a curious rather than didactic or authoritative stance contributes to an empathic, exploratory process that is devoid of judgment and facilitates an atmosphere of compassion, mutual interest, and respect. This reflects unconditional positive regard for patients (Rogers, 1951) and underscores the influence of the therapeutic alliance on psychotherapy outcomes (Norcross, 2010). We have found that these elements are crucial in tackling the shame and embarrassment often experienced by individuals who are struggling with mental illness, making it much more likely that they will openly share valuable information and engage in meaningful exploration of the critical issues underlying their presenting problems.

Our job as therapists is to integrate available theory, research, and evidence-based treatments to best meet the needs of the individuals seeking our help. We rely on scientific methods such as observation of behaviors, thoughts, emotions, and sensations, both in and out of session, to inform and test hypotheses about the underlying mechanisms driving patient problems, and to guide
decisions about which interventions will best target those mechanisms and mitigate presenting problems and symptoms. Observation and data collection, hypothesis testing, and symptom and progress monitoring create a continual feedback loop that propels treatment and contributes to its success. We also collaborate closely with other members of the treatment team, including psychiatrists and allied health care professionals, and bring in family members, partners, and friends as needed (with patients’ consent) to provide support and facilitate goal attainment. Setting an agenda with patients provides session structure and ensures prioritization of patient needs, review of progress, and movement toward therapy goals (J. S. Beck, 2011; Persons, 2008). Introducing these constructs at the beginning of treatment via the informed consent process clarifies the expectations and infrastructure of therapy and launches the collaborative partnership between therapist and patient.

Setting the Stage: Informed Consent

Informed consent is the cornerstone of any treatment process, from both an ethical and a legal standpoint (American Psychological Association, 2010). It sets the stage for a positive therapy relationship, which correlates with positive outcomes and enhances the strength and resilience of the working alliance between practitioner and patient (Horvath & Bedi, 2002). Individuals entering therapy often are quite vulnerable. It is important that they have a clear understanding of both the benefits and limitations of whatever treatment is offered so they can make informed decisions regarding their needs. Patients also must be made aware of expectations regarding their participation, such as agenda setting, bidirectional feedback between patient and therapist, and completion of mutually agreed-upon activities between sessions that move therapy forward. Most people familiar with CBT are quite comfortable with the term “homework” for these activities, but you can be flexible and creative when describing homework to reduce potential discomfort and maximize the likelihood of patient engagement and task completion.

Discussing how patients’ level of participation influences outcomes dovetails nicely with underscoring the collaborative nature of therapy. We let patients know that we will be working together throughout the course of treatment to jointly assess their needs, develop ideas about factors that might be responsible for their presenting problems, and set measurable goals and observable markers for success. This discussion includes explaining the concept of underlying mechanisms and how they contribute to the cognitive, emotional,
and behavioral difficulties and associated functional impairments that bring people to therapy. We also explain how mechanism hypotheses evolve throughout treatment, transcend specific diagnoses and protocols, and lead to interventions that will best target their symptoms and facilitate goal achievement. Helping patients understand the concept of skillful creativity—integrating both therapist’s and patient’s creative talents and technical skills and bringing them to bear on interventions to individualize treatment to the patient’s unique needs—typically occurs at this point in the conversation. Lastly, all of the basic elements of informed consent, such as session fees, limits of confidentiality, and therapist availability, are discussed.

Since the transdiagnostic road map is a case formulation approach rather than a stand-alone treatment, patients must be informed of this, including the fact that it is not an EST—and why we believe it to be a preferable strategy. We emphasize its strengths in allowing us to incorporate interventions from ACT, CBT, DBT, and other ESTs into treatment plans that are tailored to individuals’ specific needs. We review the empirical process, including ongoing observation of thoughts, sensations, emotions, and behaviors; explain the emphasis on observable and measurable objectives and data collection; and discuss between-session therapeutic tasks to test hypotheses, assess the effectiveness of interventions, and generalize skills. From the outset, patients learn that, much as we continually make subtle adjustments to the steering wheel while driving in order to arrive at our destination, therapy is characterized by a series of progressive changes to the conceptualization of patient problems and decisions about how to best resolve them, and results from empirical data assessment and dynamic collaboration among equal partners.

In the dialogue that follows, the therapist is meeting with the patient, Jonah, for the second time. Presenting problems and background information were reviewed during the initial intake appointment. Jonah is a single young man who has been diagnosed with bipolar depression and has been referred to therapy by his psychiatrist. He has frequent episodes of depressed mood that include vague suicidal thoughts such as I’d be better off if I were dead, though he has never acted on these thoughts and poses no imminent danger to himself or others. He also experiences mood instability, social anxiety, and intermittent panic attacks and often cannot even get out of bed or perform basic daily functions. Jonah has held various part-time jobs but currently is unemployed and living with his parents. Although he has been in therapy before, he has never experienced any lasting success and is feeling quite hopeless.

**Therapist:** Now that we’ve had a chance to go over some of the things you’ve been struggling with, I’d like to talk about how we might work
together to provide some relief and try to help you get your life back on track toward your goals. Would that be okay? (Models collaboration by including Jonah in the decision about how to proceed.)

Jonah: I guess…. It’s so hard to imagine anything is going to work at this point. I’ve tried so many different therapists, and nothing seems to help. I just keep getting worse. Now I’m living with my parents and can’t even hold a job or leave the house without falling apart. I feel like such a loser. (Slumps down and looks away as he becomes tearful.)

Therapist: I can see how much pain you’re in, Jonah, and it makes sense that you’d feel hopeless. (Validates Jonah’s experience.)

Jonah: So how is this therapy gonna help me? I’ve been in CBT before and it was just too hard—all those homework assignments and everything….I couldn’t do it. Maybe this was a bad idea.

Therapist: (Smiles warmly and speaks in a gentle tone.) Well, I can see why you might think that, Jonah, but you haven’t been in therapy with me before. I definitely want to hear more about your past therapy experiences and what did and didn’t work. That’s going to be important so we don’t go down an ineffective path. And I’m pretty sure I can help you. There are lots of good treatments for the kinds of problems you have, and one of the things we’ll be doing—if you choose to work with me—is figure out what might be driving your problems so we can use the interventions that make the most sense for you. (Communicates understanding of Jonah’s skepticism and the importance of investigating past therapy experiences while offering hope and introducing the general idea behind TDMs and the transdiagnostic road map.)

Jonah: (Sits up, looks at the therapist, and seems a bit more interested.) How does that work? Is it different from CBT?

Therapist: Sort of. We’ll use a CBT framework and maybe even some CBT interventions you’ve used before that have been helpful to you. Many people who struggle with problems like yours also benefit from other treatments, like acceptance and commitment therapy, or ACT, and dialectical behavior therapy, or DBT. Rather than have you go through several different treatments, though, which could be overwhelming and perhaps unnecessary, I can offer you
a strategy—a clinical road map of sorts—that’ll guide us in figuring out what might be driving the things you’re struggling with. It also will help us find the interventions and skills that fit your particular needs to best help you.

Jonah: Is that a new treatment? How does it work?

Therapist: Well, it’s not a treatment per se. It’s a combination of treatment components we would assemble and modify to fit your specific needs. So while it hasn’t been tested and proven through controlled studies, there’s good data to support using this type of approach, which we call case formulation. Many therapists have had a lot of success with it, myself included. One of the things we’ve learned from research on different disorders and treatment protocols is that there are certain underlying factors, called mechanisms, which seem to play a major role in problems like anxiety, depression, and panic. We’ve found that when you pinpoint the mechanisms driving someone’s problems, it becomes much easier to identify which interventions will best target those problems and be most effective in helping the person get better.

Jonah: (Appears more animated and shows interest in what the therapist is saying.) So how will you figure out what mechanisms are behind my depression and other problems?

Therapist: (Smiles warmly and gives a more detailed explanation of the transdiagnostic road map and the collaborative and empirical nature of therapy.) That’s something we’ll do together, Jonah. Since you have the most information about what you’re experiencing, and I have information about how to best help you based on my training and expertise, we’ll approach everything we do as a team. The first step will be looking at different examples of how you struggle in various situations so we can brainstorm ideas about which mechanisms might be driving your bipolar depression, social anxiety, and panic. Then we’ll test our hypotheses to see if the mechanisms we identify match up with your actual experiences. What we learn from those steps will serve as our road map, pointing us toward different interventions that are best suited to your particular needs and goals.

Jonah: Sounds good so far.
Therapist: *(Introduces the concept of skillful creativity and underscores the dynamic and empirical nature of therapy.)* Another really cool feature of having our own road map is that you and I are going to get creative in putting our knowledge, skills, and talents together to come up with unique interventions designed specifically for you. We’ll develop goals that reflect the life you want to have, and we’ll identify measurable objectives to guide us in moving toward those goals and help us know if you’re getting better. The whole time, we’ll be monitoring how you’re doing by collecting data on your thoughts, feelings, and symptoms. That will tell us whether we’re targeting the right mechanisms. If we aren’t, our road map will guide us in making any necessary adjustments to your treatment. How does all that sound?

Jonah: It sounds really good. *(Smiles.)* So how long will it take to feel better?

Therapist: That’s a great question, Jonah. It varies from person to person, often depending on how much effort people are able and willing to put into their own treatment. Also, people often get better before they feel better because it’s easier to see changes in our thoughts and behaviors before we experience changes in how we feel. In fact, people sometimes feel worse on the way to getting and feeling better. *(Inserts this disclaimer as part of informed consent so Jonah can anticipate potential setbacks.)* As you know, therapy is hard work, and you’ve been dealing with this stuff for many years. It will take some time for us to get traction on your problems, but we’re going to do everything we can to get you relief quickly. *(Leans forward and speaks with a soft tone to convey nonjudgment about Jonah’s past difficulties in therapy.)* If it’s okay with you, I’d like to hear a little bit about what got in the way of completing homework when you were in therapy before, so we can figure out how to make the between-session work more manageable. Homework plays a big part in helping you make progress, since we need to test our hypotheses and have you practice skills in real-life situations. What we learn from that will help us know if we’re moving in the right direction so we can adjust course as needed. *(Note the therapist’s frequent use of the word “we” to convey the collaborative nature of therapy and Jonah’s role as an equal partner.)*
Jonah: That makes a lot of sense. The biggest thing that got in the way was that it felt like we were going too fast sometimes, especially when I was struggling. When I tried to talk about how hard it was—which also was hard to do—my therapist mostly kept pushing me to keep doing the homework, and I just didn't feel heard. (Lowers his voice and looks embarrassed.) It also made me feel worse when I couldn't do something the therapist asked, because then I seemed like an even bigger failure. I stopped trying because I couldn't bear the thought of not even being able to do therapy right. Eventually, I just quit.

Therapist: (Speaks compassionately and validates Jonah’s experience.) Wow, that must have felt pretty awful. I'm really sorry that happened. I might have made the same choice in your shoes. (Moves into reiterating the collaborative nature of therapy and Jonah’s importance in the treatment process, while providing encouragement to address his social anxiety.) I’m going to do everything I can to meet you where you're at and help you feel heard, Jonah—and I’ll want to hear from you if that’s not happening. Just as we talked about monitoring mechanisms and whether the treatment is working, we'll also check in frequently to see how well we're working together. If there’s something that’s confusing or doesn't feel right, or if I’m doing something you disagree with, it’s important for you to speak up. I actually want to hear what you have to say—about anything. Therapy is hard work, and no matter how good I am (smiles to convey genuine warmth and humbleness in using irreverence)—and I am pretty good, by the way—this doesn't work if you don't feel safe and don't feel heard. (Given the strength of the rapport thus far, the therapist chose irreverence to convey confidence in her ability and to instill a sense of hope. This is particularly salient because Jonah hasn’t experienced success in previous therapies.)

Jonah: You sound like you really mean that.

Therapist: I absolutely do, Jonah, and I’m looking forward to working with you. People can and do get better, and I believe that I can help you get your life back.

Jonah: (Looks more relaxed and sounds a bit more optimistic.) I really like the sound of that. Where do we go from here?
Therapist: In the time we have left, I’d like to talk about setting some goals for what you’d like to achieve in therapy and to figure out how we’ll measure progress. Before you go, we can decide what makes the most sense for you to work on between now and the next time we meet and try to brainstorm anything that might get in your way so that we can problem solve together. Of course, if anything comes up that we haven’t thought of, or if you need additional help or support, you can always get in touch with me. (Informs Jonah of her availability for coaching and support outside of office hours, including time constraints, preferred methods of contact, and how to handle urgent communications. Discusses how coaching can facilitate homework completion and skills practice and bridge in-session work, and concludes the session by introducing goal setting and returning to solving any anticipated obstacles to homework completion.)

This vignette illustrates how to engage patients in a collaborative exchange to identify and discuss presenting problems, explain mechanisms and their role in guiding the treatment, and introduce goal setting and homework as part of the informed consent process. The empirical nature of treatment is addressed: collecting data, developing and testing hypotheses that map presenting problems to mechanisms, and employing a feedback loop to monitor treatment effectiveness. Emphasis is placed on the patient’s active participation throughout all stages of therapy and the therapist’s interest in receiving ongoing feedback. Therapist empathy and curiosity communicate acceptance and model a nonjudgmental perspective, facilitating patient engagement in the working alliance that serves as the foundation for desired behavioral changes and positive treatment outcomes.

The Therapeutic Alliance as a Platform of Change

Bordin (1979) identified three components of the therapeutic alliance, all of which are mutually influential: agreement on tasks that will comprise therapist interventions and patient assignments; agreement on therapy goals; and the affective components of the therapeutic relationship itself. One of the more challenging aspects of the alliance for therapists—and a determinant of successful treatment outcomes—is attending to its key elements: establishing and
maintaining trust, demonstrating empathy and compassion, and facilitating an interpersonal connection with the patient (Norcross, 2010). Transdiagnostic case formulation relies heavily on establishing and maintaining a solid and enduring therapeutic alliance that is continually monitored and strengthened throughout treatment.

Research on the robust correlation between the therapeutic relationship and psychotherapy outcomes is well established (e.g., Horvath & Bedi, 2002; Lambert & Barley, 2002; Norcross, 2010). Despite considerable theoretical and structural differences across the various types of psychotherapy, clinicians generally agree on the significance of the therapist-patient dyad as a context for positive change. The relationship itself also may be quite powerful as a contingency strategy for motivating patients to engage more fully in treatment (Linehan, 1993a). Moreover, therapists’ expressions of warmth and genuineness are instrumental in actively engaging patients, conveying empathy, and building and strengthening the therapeutic alliance (Rogers, 1951).

CBT has long recognized the essential role of the therapeutic relationship, which was described by Aaron Beck and colleagues (1979) as being necessary but not sufficient to achieve good treatment outcomes. Some therapies, such as the cognitive behavioral analysis system of psychotherapy (McCullough, 2000) and functional analytic psychotherapy (Kohlenberg & Tsai, 1991), utilize therapist-patient verbal and nonverbal communication to illustrate key aspects of patients’ struggles, which then become the focus of clinical intervention. DBT encourages clinicians to practice “radical genuineness,” which includes therapist self-disclosure and irreverent communication as core features of treatment and reflects the highest level of validation of the patient’s experience (Linehan, 1993a). Leading with validation facilitates patients’ ability to engage in change strategies and is a powerful intervention in itself. By communicating empathy and acknowledgment of the patient’s perspective as legitimate, validation enables individuals to feel heard and understood, reducing the physiological arousal that often accompanies suffering and allowing for the expression of more adaptive emotions (Bohart et al., 2002; Koerner, 2012). Below, we build on this perspective by illustrating how integrating core features of the therapist’s personality into treatment can strengthen the therapeutic alliance and amplify its beneficial impact on desired treatment outcomes.

**The Therapist as a Real Person**

One of the ways we translate the principle of the therapeutic alliance into practice is by being real with patients: allowing personal aspects of who we are
as individuals to come into the therapy room in appropriate ways, and communicating candidly and openly with patients, including using self-disclosure in the service of attending to patients’ needs and helping them achieve their goals. This reflects the belief that the relationship between therapist and patient is a real relationship between equals (Linehan, 1993a), which might seem contradictory to our professional role as trained experts providing help to those in need. In our experience, however, therapists’ ability to balance this dialectic in developing real relationships that blend their appropriate expression of affect with full attention to patients’ needs and goals is a necessary (but not sufficient) condition of an effective therapeutic alliance. Individuals seeking therapy often are painfully aware of their vulnerabilities, which may cause them to feel quite fragile and “less than” the therapist, who likely is seen as highly competent and confident. Being real with our patients by offering a beverage, sharing personal information such as our hobbies, alluding to family members and pets, and demonstrating a relaxed and genuine manner—in short, being ourselves—facilitates an atmosphere of openness and honesty that can go a long way in communicating our respect for patients and validating their role as equal and valued partners in the professional relationship.

Consistent with the principle of a relationship between equals is the recognition that therapists are equally capable of behaving in a manner that interferes with therapy and patients’ progress. This might include prioritizing their own needs over those of the patient, assuming a judgmental stance, or behaving in a way that is potentially disruptive or disrespectful. Since it often is difficult to step back from our own internal experiences and behaviors, particularly when our emotional arousal increases, it is crucial to monitor our interactions with patients and seek consultation as needed to ensure that we do not lose our objectivity and professionalism in any efforts to incorporate personal aspects of who we are into our work as therapists. We will say more about this in the upcoming sections on repairing relationship ruptures and ongoing consultation and training.

Similar to the positive effects of empathy (Bohart et al., 2002), being appropriately genuine in our interactions with patients can help them feel heard and understood and recognize that they are worthy of the respect and trust of others, which may increase disclosure of thoughts and feelings. For example, once an initial alliance is established, being lighthearted and using humor at appropriate times can put patients at ease and help them engage more effectively in therapy. Similarly, making mildly self-effacing remarks often can strengthen the concept of equality and help patients feel less marginalized or inferior because of their problems. For example, a tongue-in-cheek comment
such as “And I call myself a therapist!” or “I bet that earned your confidence and trust” in response to a mild misunderstanding or misinterpretation can model imperfection and self-acceptance, keep the therapy moving forward, and normalize patients’ experiences of their own fallibility and problems. Moreover, allowing ourselves to be at ease with our patients and let aspects of our personalities find expression in our professional role as clinicians—all within appropriate boundaries per ethical and professional standards—can facilitate the interpersonal connection underlying the therapeutic alliance, which is strongly correlated with potentiating interventions and improving treatment outcomes (Norcross, 2010).

**Therapist Self-Disclosure**

Sharing personal information is highly controversial as an intervention. As already discussed, DBT practitioners commonly share aspects of their personal lives, whereas self-disclosure is explicitly prohibited among psychoanalysts and many other “nondirective” therapists. Self-disclosure may reflect facts, feelings, insights, or strategies, revealing something personal about the therapist in the interest of helping the patient move forward in treatment (versus serving some need of the therapist). Research on disclosure suggests that if kept within appropriate (always nonsexual) parameters, and if offered to further the therapeutic alliance or otherwise benefit the patient, it can be a useful intervention (Hill & Knox, 2002). For example, when therapists reveal vulnerabilities or examples of overcoming challenges, it can be quite validating and normalizing of patient experiences, potentially motivating patients to consider alternative ways of thinking about their problems. This is particularly salient when encouraging patients to engage in interventions that may be anxiety provoking or otherwise difficult.

Sharing examples of pushing ourselves to accomplish difficult tasks or engage in challenging activities that are important to us often can help patients overcome their fears to move toward their values and desired goals. This can be an effective prelude to interventions such as exposure, which usually elicits considerable anxiety and doubts about one’s ability to endure it. Self-disclosure also can be used to address patients’ concerns about taking medications or difficulties they may encounter in accepting the painful reality of their problems, especially when dealing with the fears, judgments, and social stigma frequently surrounding conditions such as bipolar disorder and BPD.

In the following example, the therapist uses her own experience of engaging in a fear-inducing activity to encourage the patient’s willingness to begin
exposure, and also to illustrate how exposure-based interventions facilitate new learning. The patient, Claudia, has been in therapy for several months after having been referred for treatment of PTSD stemming from childhood abuse. The therapist has completed a full assessment of Claudia’s symptoms and has already explained the concept of exposure and discussed what the treatment will involve. She also has worked with Claudia to teach her grounding exercises and distress tolerance skills to prepare her for the exposure work. Although there are no safety concerns, Claudia has expressed reservations about this phase of treatment, her ability to tolerate exposure, and whether it will help her feel better. The therapist is about to describe overcoming her own fear of heights in order to go downhill skiing, which she has been doing for several years.

*Therapist:* (Validates the patient’s fear and reservations about exposure.) I totally understand your reluctance to do exposure, Claudia. That makes a lot of sense. It reminds me of my own challenges trying to overcome things. A few years ago my partner tried to convince me to take up skiing, which sounded like a crazy idea to me because I’m terrified of heights. Plus, I’m not naturally athletic, so I was also afraid of getting hurt.

*Claudia:* (Looks a bit skeptical but interested.) You get afraid of things too?

*Therapist:* (Smiles and speaks in a warm tone.) You’d be surprised. I’m actually afraid of most things, but I’m willing to try just about anything—especially if it helps me move toward my goals and values.

*Claudia:* How does skiing help you do that?

*Therapist:* Well, one of my goals is to not let my fears prevent me from doing things that are important to me, and I love being outside in beautiful surroundings, doing fun things with my friends and family—that’s something I really value. Also, since I’m always pushing my patients to do scary things, I try to practice what I preach, especially when I’m afraid—which as you now know, happens pretty frequently (said irreverently and while smiling). People like you actually inspire me to push myself way past my comfort zone. (Looks directly into Claudia’s eyes, conveying genuineness while validating Claudia’s courage in working on her problems and enduring therapy.)

*Claudia:* Thanks. (Looks somewhat hopeful.) So now you’re no longer afraid?
Therapist: (Chuckles.) I wish! Every time I stand at the top of that mountain looking down a ski run, it’s pretty scary for me. The more I do it, the less scary it gets, though my fear never really goes away. More importantly, I learn that even though I’m afraid, I can still do the thing that scares me; that’s how exposure works. I also learn that being afraid doesn’t necessarily mean I’m in danger, and that I’m often more capable and resilient than I realize. Turning toward the things we fear is called opposite action, or facing our fears.

Claudia: (Looks a bit uncertain.) You make it sound so easy. What if I can’t do it?

Therapist: (Again validates Claudia’s concerns by disclosing her own emotions and reluctance to engage in the feared activity while also offering encouragement and support.) It’s not easy at all, Claudia, not for anyone—including me—which is why we’re going to take it nice and slow. And I’m going to be with you every step of the way to help you. We’re going to get through this together, but I want to remind you that you’re the one driving the car; I’ve just got a second set of brakes and a great GPS tool (refers to the road map) to get us safely to the finish line.

Claudia: (Smiles.) I like the sound of that. Let’s give it a try.

This example shows how the therapist’s disclosure of her own emotional responses while attempting to overcome challenges can be both validating and motivating, facilitating the patient’s engagement in some of the more difficult and potentially anxiety-provoking treatment interventions. This example also highlights how the therapist brings aspects of her personality, such as her sense of humor, into interactions with the patient so as to convey warmth, genuineness, and mutual respect, which strengthens the therapeutic alliance and increases the potential for positive outcomes.

**Addressing Therapist Errors and Repairing Relationship Ruptures**

Therapists’ attempts to be empathic, genuine, and validating of patients’ experiences must include a willingness to acknowledge when we are making mistakes, and solid efforts to repair ruptures to the treatment alliance. As Persons (2008) points out, all of the interactions that surround clinician errors
and associated repairs—acknowledging mistakes, accepting responsibility for them, and repairing ruptures to the relationship—are potentially therapeutic and can have significant benefit for patients. For example, a patient (Drew) once began his session with the lead author (RIF) by saying, with noticeable trepidation, “I’m really angry with you.” This was particularly noteworthy because Drew had been raised in a highly invalidating household that included an alcoholic and abusive father, who frequently lost his temper and shamed and ridiculed Drew whenever he expressed his feelings or needs. Drew constantly feared that others would respond to him like his father did, especially if he became angry. Consequently, one of Drew’s therapy goals included expressing his emotions and asking for what he wanted and needed. The treatment plan included behavioral experiments wherein Drew engaged in progressive steps toward this goal and collected data on how others (including RIF) responded to him. This elicited considerable anxiety, and therapy sessions frequently included his repeated inquiries about rules and discussion of concerns that RIF would “fire” him if he made a mistake, especially if he were to get angry at her.

When RIF responded to Drew’s expression of anger in session by immediately putting the agenda aside, offering a sincere apology, and encouraging Drew to say more about what she had done to elicit his anger, you can imagine how surprised and relieved he was! Her response allowed Drew to experience someone taking accountability for her own behavior rather than rationalizing it, and attending fully to his needs, neither a common experience for him. This also allowed Drew to disclose that he felt hurt and offended by an irreverent comment RIF had made in the previous session and created an opportunity for him to accrue new data about the potential for developing healthy and mutually respectful relationships. RIF further reinforced Drew’s response by acknowledging it as an important step toward his identified goals and values and expressing sincere appreciation for his courage and willingness to speak up.

Sometimes therapist errors can be more serious than a misinterpretation of behavior or a poorly timed irreverent comment. This could be especially challenging for patients who are more vulnerable because of trauma histories or flawed reality testing. Regardless of the type of error or patient specifics, the therapist’s efforts to understand and be accountable for what transpired is a crucial step toward making appropriate repairs to the relationship and moving treatment forward. Using an easy and relaxed manner, demonstrating genuineness and respect in our expressions of affect, and assuming a curious and nonjudgmental stance all increase the likelihood that patients will be able to
come forward with candid feedback about interactions, which is vital to
strengthening the alliance and ensuring the sustainability of treatment.

Despite our best efforts and intentions to protect and preserve the treat-
ment, however, we occasionally are unable to avoid relationship ruptures, and
not all ruptures are reparable. For example, therapists differ in their ability to
tolerate and respond effectively to therapy-interfering behaviors such as hostile
comments (e.g., swearing at the therapist), dishonest communications (e.g.,
not reporting self-destructive acts), or repeated noncompliance with medica-
tion or homework. Regardless of whether an irreparable rupture (and the
resulting termination of treatment) stems from a patient’s therapy-interfering
behavior or a therapist’s loss of objectivity, the therapist must work with the
patient to help her understand what happened in the context of ineffective
behaviors, personal limits, and human fallibility, and to facilitate appropriate
referrals as soon as possible so treatment can continue with another clinician.

Flexibility Within Fidelity

One of the many benefits of a case formulation approach like the transdiag-
nostic road map is that it tailors interventions to the specific needs of indi-
vidual patients while maintaining fidelity to the evidence-based treatment
protocols generating those interventions (e.g., Persons, 2008; Kuyken et al.,
2009). Flexibility within fidelity (Kendall & Beidas, 2007; Kendall et al., 1998)
describes how manualized treatment protocols typically must be modified to
address individual patient needs, which stems from the fact that ESTs are
limited by their underlying theoretical constructs and the diagnostic entities
for which they were developed, and people seeking therapy rarely present with
the circumscribed criteria of research subjects. Also, many patients either do
not need—or simply cannot manage—treatments that are fully adherent to
their original research designs, especially if they have multiple psychological
problems. With few exceptions, such as Barlow and colleagues’ unified proto-
col for emotional disorders (2011) or Norton’s protocol for comorbid anxiety
disorders (2012), there are no evidence-based treatments for psychiatric
comorbidities.

Because the transdiagnostic road map relies on identification of psycho-
logical mechanisms underlying patients’ problems rather than trying to fit pre-
senting problems to existing diagnostic labels, therapists can select an array of
interventions that best target the hypothesized variables maintaining those
problems and tailor them to the needs of any given individual. However, the
flexibility of the road map and the creativity with which interventions can be adjusted to individual patients does not mean therapists can alter interventions in ways that potentially compromise the integrity of EST components. For example, in utilizing distress tolerance or interpersonal effectiveness skills from DBT or cognitive defusion techniques from ACT, the therapist must preserve the theoretical and structural integrity of the interventions. However, whereas all elements of a particular skill must be maintained, all of the skills within a given module might not be necessary or indicated for a given patient. And while our transdiagnostic road map allows for considerable flexibility in the design and delivery of individualized treatment plans, decisions about which elements of ESTs to use for a particular patient always are based on identification of vulnerability and response mechanisms, desired outcome goals, and the patient’s clinical, cultural, and developmental needs at any point in time.

Skillful Creativity

Skillful creativity breathes life into the road map and truly individualizes treatment by incorporating the unique blend of each therapist-patient dyad’s talents, skills, and creative ideas into clinical interventions. It may include the use of humor, music, books, metaphors, videos, art, and anything else the therapist or patient thinks of to enhance interventions, tailor them to individual needs, and facilitate movement toward therapy goals. Because every person brings different attributes to bear on this principle, the possibilities truly are endless. Moreover, encouraging patients to get creative and contribute ideas to the treatment plan can be therapeutic, conveying the message that they are valued and important members of the treatment team. For many patients, this validation by the therapist is important data to juxtapose with their learning histories, which often are replete with negative messages and inaccurate concepts about their self-identity. In addition to providing contradictory evidence to challenge these invalidating experiences, this type of encouragement and active partnering can help motivate patients to become more engaged in their own treatment. Moreover, patients’ cultivation of creative techniques to tackle their problems can build self-sufficiency to carry on the work of therapy long after its termination.

Skillful creativity can augment clinical interventions in many ways, ranging from writing a letter to oneself to promote self-compassion to devising individualized measures to monitor progress. Incorporating metaphors, like gently
observing that a patient has “fallen down a rabbit hole” and offering to reach in and help him climb out can be an empathic and effective catalyst for coming back into the present moment when patients are feeling consumed by their problems and losing perspective. Since many patients now have smart phones, introducing them to therapy-based apps that can bridge in-session work, help them access coaching and support, and facilitate skill development can be useful in augmenting interventions and advancing treatment.

Skillful creativity is especially important and can be quite fruitful for transdiagnostic problems (e.g., rageful outbursts) or when no ESTs are available for a person’s presenting problems (e.g., dissociative identity disorder). Barbara, a woman with a history of severe childhood trauma, experienced overwhelming rage that often jeopardized her relationships. She was very fearful of any expression of anger because this frequently resulted in dissociation, rageful outbursts, and interpersonal conflicts. She was embarrassed by this loss of control and terrified that her behavior would cause others to avoid and reject her. She likened herself to a lioness at the local zoo that recently had been euthanized because it attacked a spectator, and feared that her anger would have an equally catastrophic impact on her life. Barbara’s therapist used skillful creativity in suggesting that she buy a toy lioness to help her have a more tangible sense of emotions and visualize stepping back from them. The image of having a choker chain collar on the lioness helped Barbara envision mastering her emotions, rather than her usual experience of emotions overtaking and consuming her, which provided a bridge to exposure interventions, development of emotion regulation skills, and cognitive restructuring to help her reframe her anger as a welcome aspect of her personality rather than something to be feared and avoided.

Even when patient problems are less complex and evidence-based treatments do exist, skillful creativity is an important addition to standardized clinical interventions. For example, utilizing a whimsical toy such as a “worry gremlin” can be quite effective in reminding patients of metaphors used in session to help them step back from symptomatic behaviors and practice newly developed skills to observe worry thoughts rather than feeling compelled to react to them. Metaphors and imagery frequently are used as direct clinical interventions (S. C. Hayes et al., 2012) and can help therapists and patients develop a shared lexicon to describe internal experiences and make interventions more meaningful and effective (Stott et al., 2010). Using metaphors that reflect patient problems, goals, and values helps make this approach much more meaningful and effective. We also recommend using books that reflect life values and relationship themes (e.g., children’s stories), videos, and musical
selections to reflect and validate patient experiences, build self-compassion and a sense of connection with others, and facilitate self-soothing.

Patients often demonstrate exceptional creativity in devising interventions to meet their own needs. A woman who entered therapy to overcome her history of childhood trauma constructed dolls to represent herself at critical life stages so she could use them as vehicles for self-soothing and self-compassion on the road to developing a more positive and balanced self-concept. Another patient drew caricatures of her OCD-related fears, which helped her engage in acceptance- and exposure-based interventions. A patient who had difficulty recording automatic thoughts because he could not tolerate the distressing nature of their harsh content chose to capture his internal dialogue with illustrations of cartoon characters engaged in humorous yet realistic exchanges that represented his thoughts and responses. This ultimately helped him become more compassionate toward himself, increase his distress tolerance, and modify his negative self-schema.

While we could fill these pages with countless examples of skillful creativity, we encourage you to work collaboratively with your patients to modify interventions and develop techniques that will dovetail with patient characteristics, address relevant TDMs, and best meet individuals' needs.

Ongoing Consultation and Training

The final principle guiding implementation of the transdiagnostic road map is ongoing consultation and training. This is especially important given that the road map is an individualized approach to treatment planning, rather than an established treatment with proven efficacy. Therapists must have adequate training and experience in the interventions and techniques being utilized, including a comprehensive understanding of their respective theoretical and structural constructs. This contributes to conceptualization of presenting problems and guides development of mechanism hypotheses and corresponding treatment planning. Empirical testing, data collection, and progress monitoring provide a continual feedback loop to assess the veracity of TDM hypotheses and appropriateness of treatment interventions. In addition, ongoing peer consultation and guidance from more experienced clinicians can ensure that treatment plans reflect sound psychological science and evidence-based clinical practice. Similarly, since the field has only recently begun to focus more on targeting underlying mechanisms of disorders, it is important for therapists using transdiagnostic case formulation to stay abreast of new
developments relevant to mechanism-driven treatment by reading current literature and attending professional workshops.

Another important aspect of consultation, training, and continuing education is helping therapists manage their own emotions and build resilience to the intense nature of working with individuals who are suffering. Despite the best of intentions, commitment to professional ethics, and range of experience, we all are well aware of the potential to become overwhelmed by patient problems and lose our objectivity. Therapists can mitigate these risks via ongoing consultation from experts and continuing education in legal, ethical, and professional issues. Peer consultation can provide professional guidance and emotional support. Similarly, when working with individuals from diverse cultural backgrounds, therapists must maintain awareness of and sensitivity to their own limitations and personal reactions to minimize the impact on patients, their clinical problems, and treatment.

Lastly, therapists also have vulnerability and response mechanisms that may be triggered by certain patients and can affect interactions with them. For example, intolerance of uncertainty and perfectionistic strivings can interrupt treatment if the therapist gets frustrated because the formulation is unclear or the patient is not making progress. In this and other situations, negative schemas (e.g., *I’m incompetent*) may be activated. Similarly, clinicians may avoid discussion of certain topics in session because of discomfort related to the subject matter or uncertainty about how the patient will react. Novice therapists often worry about upsetting or angering a patient and therefore do not attend to behavioral cues (e.g., a patient clenching his fists) or patient comments (e.g., “I just want to give up sometimes”). Some therapists have difficulty staying on task, which may result in homework not being reviewed or treatment targets being neglected. Thus, professional and peer consultation are important in supporting efforts to stay mindful of our own mechanisms so that we can monitor and modify them to prevent them from compromising our work with patients.
PART 2

Developing Transdiagnostic Mechanism Hypotheses
Once we have discussed the transdiagnostic road map with patients and obtained informed consent, we are ready to start collecting data and thinking about mechanism hypotheses. Assessment begins with identifying presenting problems within the context of individuals’ current living situation, including notable stressors that might be impacting reported symptoms and level of functioning, and gathering a broad range of historical information (e.g., developmental, family, academic, vocational, interpersonal, and psychiatric). Therapist and patient observations surrounding problematic behaviors, emotional experiences, core beliefs, and responses to triggers both in and out of session are combined with clinical interviews, intake data, and historical reports to develop initial diagnostic hypotheses and rule-outs that will suggest possible TDMs to consider based on disorder-specific and theory-driven treatment protocols. We utilize standard CBT techniques such as thought records, Socratic questioning, and functional behavioral analyses to deconstruct patient problems into cognitive, behavioral, emotional, and physiological components, further clarifying potential mechanism hypotheses. Initial TDM hypotheses may also be assessed using standardized self-report measures confirming or disconfirming the presence of specific mechanisms. In this chapter, we describe each of these elements of the assessment process.
Intake and Assessment

Data collection begins with therapists’ initial contact with patients and continues throughout treatment. The TDM Hypotheses Worksheet (available in the appendix and as a download at http://www.newharbinger.com/28951) may be used to take notes and organize thoughts about possible mechanisms to consider as clinicians gather information about patient problems. This worksheet focuses on four key elements of the assessment process in the search for potential mechanisms to explain patient problems: diagnostic considerations, therapist and patient observations, deconstructions of patient problems using specific examples, and use of standardized mechanism measures. Additional information may be gathered, depending on patient and problem characteristics, but these four categories provide a solid foundation.

Identifying Patient Problems

The first point of contact with patients typically is over the telephone or via e-mail. From the moment therapists start interacting with patients or their family members, we continually take note of behaviors that illustrate presenting problems and potentially inform mechanism hypotheses. How patients relate to us, both professionally and interpersonally, reveals important clues about their problems and functioning.

Initial Impressions

A first step in formulating TDM hypotheses is getting a clear understanding of the problems for which the patient is seeking treatment. While this is often apparent in the first few contacts, there are many instances where patients have been misdiagnosed in previous settings or the clinical presentation is muddled by psychiatric comorbidities and symptom crossover. Similarly, in psychologically complex presentations such as bipolar mood disorders, BPD, and complex PTSD, commonly reported symptoms (e.g., depression, anxiety, insomnia, cognitive confusion) often are only the tip of the iceberg, and it is not until more in-depth exploration of these problems occurs within multiple domains and across situations that the broader spectrum of psychological distress and functional impairments is revealed. Juxtaposed with observations of patient behavior both in and out of session, therapists can search for similarities and discrepancies among the data to enhance understanding of patients'
experiences. We always are listening beyond the obvious and gleaning information from multiple sources to uncover behavioral trends that lead to mechanism hypotheses. Maintaining a curious and nonjudgmental approach throughout this process invites patients to offer their own ideas about underlying themes within and across situations, problem behaviors, emotions, and coping responses, which highlights the collaborative relationship and helps keep patients actively engaged.

**Standardized Measures**

Intake forms and self-report measures provide a rudimentary foundation for understanding both the current and historical context of a patient’s difficulties, revealing relevant symptoms and environmental and genetic vulnerabilities (e.g., situational stressors and family history of mental illness). To maximize available information and use appointment time effectively, we ask patients to complete an intake questionnaire and various self-report assessment tools before initial sessions, selecting screening measures based on problems identified during the initial contact. Our intake packets include treatment agreements for informed consent, with detailed information about the assessment and treatment process, confidentiality, and office policies. We use a comprehensive questionnaire that covers various aspects of the patient’s life, including reasons for seeking treatment, identifying information, relationship status and living situation, educational background, job status and employment history, developmental and family history, individual and family psychiatric history (including prior treatment experiences and past and current medications), social history, substance use, screening for trauma history, health status and medical history, legal or criminal history, self-care behaviors, and current stressors. We recommend utilizing general symptom measures such as the Symptom Checklist – 90 – Revised (SCL-90-R; Derogatis, 1977) and the Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995), as well as specific symptom measures such as the Beck Depression Inventory – 2 (BDI-2; A. T. Beck et al., 1996) and the Burns Anxiety Inventory (BAI; Burns, 1999). Based on information about the patient’s presenting problems, therapists may decide to include more symptom-specific measures, such as the Yale-Brown Obsessive Compulsive Scale – 2 (Y-BOCS-2; Storch et al., 2010) or the Mood Disorder Questionnaire (MDQ; Hirschfield et al., 2000).

Given differences in therapist style and expertise, we encourage clinicians to choose intake forms, self-report measures, and interview questions that they find most helpful when assessing patient problems. For mood and trauma...
disorders, we use the MDQ and either the Detailed Assessment of Posttraumatic Stress (DAPS; Briere, 2001) or Trauma Symptom Inventory – 2 (TSI-2; Briere, 2011) for identifying disorder-specific symptoms and guiding more comprehensive exploration of target behaviors and diagnostic possibilities on the road to mechanism hypotheses. Other instruments, such as the Functioning and Satisfaction Inventory (FSI; Davidson et al., 2006) or the Quality of Life Inventory (QOLI; Frisch, 1994) provide information about patients’ perceptions of functioning and satisfaction or importance of various life domains. It is also important to assess actual and perceived social supports to help the therapist understand what resources may be brought to bear on TDM hypotheses and treatment planning.

Diagnostic Considerations

Since many TDMs were derived from decades of empirical research on their role in specific disorders and types of problems—yielding many of the ESTs in practice today—we often begin with consideration of constructs associated with specific presenting problems when developing mechanism hypotheses. For example, panic disorder typically involves anxiety sensitivity, with cognitions about and avoidance of feared somatic sensations. Social anxiety disorder likely will include mechanisms such as self-focused attention, appraisals related to evaluation by others, and safety or avoidance behaviors to decrease the likelihood of social embarrassment and judgment. Depression may involve certain negative self-schemas and withdrawal from activities, leading to a dearth of positive reinforcers. Identifying the diagnostic possibilities informs initial TDM hypotheses, which then can be assessed for the specific patient.

Whereas the field is moving away from categorical diagnosis (Insel, 2013), differential diagnosis is crucial when the same mechanisms are central to different disorders. For example, when patients present with symptoms of depression, proper treatment relies on differentiating among diagnostic entities such as mood disorders (including bipolar versus unipolar types), trauma disorders, and pervasive emotion dysregulation problems such as BPD (American Psychiatric Association, 2013). These conditions share common TDMs, such as experiential avoidance and rumination (Baer et al., 2012; Dickson et al., 2012; Giorgio et al., 2010; Kim et al., 2012; McLaughlin & Nolen-Hoeksema, 2011), and understanding diagnostic entities and associated mechanisms allows us to test hypotheses based on patient specifics and how problems present in
daily life. Thus, we might identify specific types of cognitive misappraisal mechanisms to distinguish among unipolar (A. T. Beck et al., 1979) and bipolar (Searson et al., 2012) depression. Similarly, different types of attentional and cognitive processing biases could help us differentiate between BPD (Matthews & MacLeod, 2005) and trauma disorders (Brewin et al., 1996; Shipherd & Salters-Pedneault, 2008). Elucidating these and other mechanisms derived from known diagnostic entities informs the TDM formulation and provides guidance toward viable treatment options.

The clinical interview offers the first opportunity to work with patients to formally assess mental status, learn details of their presenting problems and symptoms, and consider diagnostic rule-outs. Therapists may decide to use questions from structured interviews to consider a broad range of problems. Most clinicians have their own approach to the clinical interview based on training and expertise, which may or may not include a diagnostic screening tool. Determining relevant diagnostic considerations provides initial building blocks for TDM hypotheses, which then may be refined via behavioral observations.

Observations

Therapists often rely on their clinical observations in assessing patients’ problems and testing ideas throughout treatment. Both novice and experienced clinicians can benefit from making their observations explicit and concrete. We encourage therapists to continually document patient behaviors that may be relevant when later choosing or confirming mechanism hypotheses. For example, a patient may initiate treatment via e-mail and hesitate to speak directly with the clinician over the telephone. Sometimes family members or friends make the initial call to discuss treatment for a loved one. These behaviors may suggest many different possibilities, including social anxiety (and related tendencies to avoid interpersonal interactions), skill deficits, ambivalence about starting treatment, or feelings of shame when discussing problems or contacting a mental health professional. Observations like these enhance clinicians’ understanding of presenting problems and inform their efforts to engage patients in treatment.

Similarly, when individuals call to initiate treatment, it is important to pay close attention to the nature and quality of the interaction. They may sound anxious, provide excessive detail about symptoms, have pressured or
overproductive speech, minimize problems, convey a sense of urgency, or use humor with varying degrees of appropriateness. They may try to control the flow of information and ask many questions, or they may seem passive and have difficulty engaging in conversation. Descriptions of presenting problems and patient strengths offered by others who know the patient (e.g., a parent or spouse who accompanies the patient to the intake appointment) allow therapists to compare how patients view themselves and their problems with how they are perceived by significant others. This is relevant because it can convey the patient's and others' ability to accept the problems, their level of motivation to address them, potential stressors (e.g., marital discord), and the types of resources (both internal and external) available to support the patient. Noting similarities and differences in how problems present across situations (e.g., how the patient communicates on the phone versus in session) and how problems are described by patients and their significant others can highlight important variables influencing patients' behavior and, potentially, their response to treatment interventions. Therapist observations about these first points of contact provide valuable input to mechanism hypotheses further down the road.

Beginning with the initial intake appointment, we obtain TDM clues from patient behaviors. For example, if a family member has to accompany the individual to the intake appointment, this may suggest that symptoms and problems impair the patient's ability to function independently, which also raises questions about self-concept and whether the patient might experience shame and despair. Similarly, if a patient arrives late to session, the therapist must assess possible reasons for the tardiness, such as anxiety about meeting the therapist, a need for repeated checking to make sure the house was locked upon leaving for the appointment, or grossly disorganized behavior and inability to follow simple directions to the office, among many others. Observing how and why behavior is compromised is what leads to initial ideas about diagnostic possibilities and potential mechanism hypotheses, laying a solid foundation for the TDM formulation.

**Looking Beneath the Surface**

Observations of patients' mental status can provide significant details about their psychological problems and inform potential mechanism hypotheses. Degree and quality of eye contact, clarity of speech, and appropriateness
of interactions with the therapist provide a sense of how that person relates to others. For example, if an individual's behavior makes the therapist feel uncomfortable, annoyed, or frustrated, and this rarely happens with other patients, that can provide information about the patient’s interpersonal relationships and potential impacts on social and emotional support systems. Alternatively, if a patient interacts in a pleasant and collaborative manner, the therapist might expect that individual to easily engage in an effective therapeutic alliance and be fairly motivated for treatment. It is equally plausible, however, that initial pleasantries may reflect an effort to maintain superficial distance with the therapist, serving the function of avoiding anxiety about anticipated judgment from others and painful discussion of more complex issues. Posture, nonverbal communication, expressed affect, and the congruence of the above with thought content convey information about an individual’s emotional state and its impact on functioning. For example, behaviors such as avoiding touching anything in the office, fidgeting and having difficulty sitting still, appearing lost in thought, or playing with hair or biting nails reveal important clues about diagnostic and mechanism considerations.

**Direct Observation**

Clinical observations can serve as critical starting points that direct the therapist toward potential mechanism hypotheses. When a patient named Tom (whose case will be examined throughout this book) called to make an initial appointment, he left a message on the therapist’s answering machine late on a Saturday evening. This data point bears relevance, since most individuals know that professionals generally are not in the office on weekend evenings. Following numerous voice mail exchanges, the therapist eventually reached Tom and noted that he was vague about his symptoms and reasons for seeking treatment, offering only that he was dealing with work stress. When prompted about his interest in therapy, Tom explained that he worried too much and had read that CBT might help him. At the first session, Tom walked very slowly when the therapist escorted him down the hall, his intake forms were crumpled and disorganized, and he took his time looking around the office and out the window before sitting down. He smiled faintly when glancing at the therapist but seemed aloof and did not make eye contact. Tom’s behaviors generated several initial hypotheses about potential mechanisms, including organizational difficulties, efforts to control feelings of anxiety or discomfort, concerns about being judged, and shame about seeking help.
Data Comparisons

Although the primary purpose of intake forms and screening measures is to collect pertinent information about a patient’s life and symptoms, how patients complete forms may be just as relevant. For example, if a patient skips certain questions, this could simply be an oversight or it may indicate hesitation to provide answers to sensitive questions for a variety of reasons. Patients who struggle with perfectionism may have difficulty answering questions or choosing responses because there are no options that precisely reflect their symptoms. Instead, they may write detailed explanations for straightforward questions in the margins of forms to be certain the clinician understands their answers. All of these observations help paint a portrait of the patient and how that person responds to the environment and varying degrees of stress.

Discrepancies between patients’ descriptions of their problems, their scores on self-report measures, and their actual presentation in the office all are worth noting. For example, an individual might endorse items indicating severe depression or anxiety but appear quite calm and cheerful when interacting with the therapist. Another patient might not endorse any clinically relevant symptoms on a diagnostic screening instrument but report a history of psychiatric hospitalizations and suicide attempts. Inconsistencies such as these can alert the therapist to possible reasons why patients may emphasize, minimize, or experience great fluctuations in their psychiatric symptoms and subjective levels of distress.

In addition to noting how individuals complete intake forms and symptom measures, observations about how they explain their presenting problems, histories, and reasons for seeking treatment can yield valuable information to guide TDM hypotheses. For example, some patients avoid describing the content of certain issues or act as if significant impairments are not at all problematic, suggesting cognitive and emotional avoidance as potential mechanisms. Others may have difficulty regulating emotional states while they describe certain problems, becoming agitated or tearful, avoiding eye contact, and seeming embarrassed and hopeless. These observations suggest that vulnerability mechanisms such as deficits in regulating arousal and emotions might be in play. Some individuals minimize relatives’ psychiatric histories but endorse self-report items reflecting significant problems such as bipolar disorder and substance abuse among multiple family members, implicating emotional and cognitive avoidance and negative self-schemas as potential TDMs. We cannot emphasize enough the degree to which clinical observations—no
matter how seemingly trivial—contribute to an understanding of patient problems and how to best treat them.

**Incorporating Patient and Family Observations**

It is important to encourage patients to share their own observations of their experiences, in and out of session, both to strengthen the collaboration and to further inform mechanism hypotheses. Some individuals begin treatment being well-informed about their presenting problems and may have solid ideas about how they respond to stressors and why they are struggling or suffering. Others may not understand their symptoms but still have important observations or theories about them.

Here, we use Tom’s case to get a more in-depth view of how therapists and patients share observations to build a collective understanding of presenting problems. Once Tom settled in and began discussing what brought him to treatment, he apologized for not being able to describe his problem more clearly. He explained that he was “in a funk” but was not sure exactly what his problem was, other than feeling uncomfortable about making a decision about a possible job transfer. Tom reported that his wife thought treatment would help him and was delighted that he had made the call to start therapy. He quickly added that he also thought it was a good idea, but he had never been in treatment before and did not know what to expect. Tom acknowledged that his symptoms seemed vague, and he realized, even as he spoke with the therapist, that he got stuck on worry thoughts about decision making. He also observed that he had only felt in a funk like this a couple of times in his life, and it usually happened when he needed to make important decisions. He did not like that he was not interacting much with his wife and children and was concerned about how this might affect them. Tom told the therapist that he knew he had “many blessings” in his life, including a promising job prospect, so he was confused by why he felt so down and stuck. Although Tom did not have a clinical vocabulary, he made important observations about his feelings, thoughts, and behaviors and recognized possible antecedents (e.g., decision making) to the symptoms he was experiencing and consequences of his behaviors (e.g., the effect on his family).

Observations by family members or other individuals who know the patient can be equally informative. Sometimes a spouse or parent accompanies the patient to session, either at intake or at different junctures during treatment, which might convey critical information about the patient’s current
functioning, especially if it differs from previous levels. Therapists might ask patients to consider bringing supportive friends or relatives to a session to provide another perspective that could aid in understanding patient problems. Partners and family members may observe behaviors that patients do not report, and they can shed light on what happens at home, including how the patient interacts with others and copes with stress, and whether the patient is able to fulfill household responsibilities and perform basic tasks for self and others. Therapists can observe patient interactions with others in session and compare differing descriptions of the same problems to learn about behavioral patterns and interpersonal dynamics that directly impact treatment decisions. For example, if the only time family members interact with a patient and attend to her needs is when she is highly distressed and struggling, then moving toward emotional stability and improved functioning may incur a potential cost of diminished support, increased isolation, and resulting feelings of loneliness, making it hard to maintain positive changes developed in therapy.

**In Vivo Observations**

Accompanying patients outside the office to observe their responses in problematic situations provides information about how they navigate their natural environments. For example, observing patients as they encounter triggers of anxiety allows the therapist to identify specific mechanisms of avoidance, including attempts to avoid public scrutiny and judgment, or the use of safety behaviors to decrease the likelihood of experiencing uncomfortable sensations. Home visits create opportunities to understand mechanisms such as behavioral responses to contamination triggers, hoarding behaviors, or misappraisals of harm when leaving home. Opportunities for these observations typically occur after a solid therapeutic alliance has been established.

**Deconstructing Patient Problems**

Diagnostic considerations provide a viable starting point on the road to mechanism hypotheses, while observations serve as guideposts through the many twists and turns of TDM hypothesis development. Although observations inform and shape mechanism hypotheses throughout all phases of treatment, serving as valuable markers on the transdiagnostic road map and offering
guidance in decisions about which mechanisms might be in play for a given patient and warrant further exploration, observations alone do not confirm or disconfirm TDM hypotheses. Deconstructing patient problems into their cognitive, behavioral, emotional, and physiological (i.e., sensate) components provides valuable clues about which mechanisms may be operating and how they contribute to specific problems for a given patient. It can confirm or disconfirm mechanism hypotheses based on initial observations and diagnostic considerations, or it may reveal new mechanism hypotheses to consider along the way.

Functional analysis has been used for decades to identify antecedents, consequences, and functions of problematic behaviors, thoughts, and emotions (e.g., M. Bandura & Goldman, 1995; Ferster, 1973). This helps therapists uncover situational stressors (e.g., job loss), schemas (e.g., I'm a failure), distressing emotions (e.g., shame), and related outcomes (e.g., relationship conflict), which may then be targeted in treatment. Some functional analytic methods are specific to clinical symptoms. For example, if a patient presents with panic attacks and agoraphobia, therapists can use a monitoring tool that tricks the sequence of physiological, emotional, cognitive, and behavioral components experienced before, during, and after panic attacks. For body-focused repetitive behaviors, such as hair pulling or skin picking, it is helpful to monitor antecedents, behaviors, and consequences within sensory, cognitive, affective, motoric, and environmental domains (Mansueto et al., 1999). The OCD Analysis Worksheet (Abramowitz, 2009) may be used to understand triggers for obsessions, feared consequences, avoidance strategies, rituals, and other anxiety-reduction strategies when OCD is the presenting problem. A more general tool is behavioral chain analysis, which is used in DBT to identify ineffective coping and to highlight opportunities for choosing more skillful behaviors so as to reduce suffering and improve functioning in the wake of triggering events and painful vulnerabilities (Linehan, 1993a). Regardless of the method chosen, functional analysis is highly effective in identifying possible vulnerabilities, triggers, contexts, thoughts, emotions, behaviors, and consequences to better understand patient problems and how to best address the mechanisms that drive them.

**Behavioral Chain Analysis**

In the following example, we illustrate how a behavioral chain analysis may be used to deconstruct a problematic behavior and reveal possible TDMs
maintaining the patient’s distress and functional limitations. Whereas this strategy also could be used to help the patient move toward more effective coping strategies, we are limiting the dialogue here to its use in assessing behavior and generating mechanism hypotheses. This example also highlights the ongoing nature of assessment and TDM hypothesis development throughout the treatment process.

The patient, Linda (whose case will be examined throughout this book), is a single young woman who returned to medical school after bipolar disorder forced her to take an extended leave of absence and move back home with her parents. She was able to return to school after approximately one year of treatment in her home state that focused on stabilizing her mood and increasing her daily functional capacity. The current therapist uses a chain analysis worksheet in session to look at a recent episode of hypomania resulting from medication noncompliance, interrupted sleep and social patterns, and excessive goal-directed behavior (Internet surfing and shopping). While the completed chain analysis appears below, in practice the therapist and patient fill it out as the assessment process unfolds and different elements are revealed. What they learn about potential mechanisms can also be recorded on the TDM Hypothesis Worksheet. Note how the therapist assimilates all available information, including behavioral observations in session, to assess the problem and begin generating TDM hypotheses as early as possible.
**Linda’s Chain Analysis Worksheet**

Name: Linda  
Date: 6/12/2013

**What is the problem behavior we are targeting for change?**

Skipping meds and staying up nights surfing the Internet

**What happened as a result of this?**

Hypomania ➔ Felt “amped up,” couldn’t stay focused on academic work, bought lots of unnecessary stuff  
Ignored or avoided signs of mood destabilization  
Fell behind in class and clinical assignments  
Felt “awful” (guilt, shame) ➔ Avoided class and clinic ➔ Fell more behind ➔ Felt worse ➔ Avoided more (friends, responsibilities, self-awareness)  
Mood “crashed” ➔ Felt overwhelmed and depressed; couldn’t function

**Was there a specific event that seemed to have triggered the problem behavior?**

Heard that best friend was getting married ➔ Felt all alone

**What were some things (thoughts, feelings, behaviors, physical sensations) that contributed to the problem behavior occurring after the triggering event?**

Started withdrawing from friends and activities ➔ Thought friends were “pissed off” ➔ Didn’t return calls or texts and turned down social invitations  
Felt really lonely and unable to cope with being around people  
Not following exercise routine or healthy eating practices

**Was there anything going on, internal or external, that made you more vulnerable to engaging in the problem behavior?**

Seasonal mood changes (tends to get hypomanic in springtime)  
Avoided paying attention to shifting mood and behavior (“Didn’t want to think about it”)  
Increased academic and clinical workload ➔ Hard to keep up  
Withdrawing from friends and increasing Internet surfing

**What are some ideas for how you might have made different choices along the way?**

Pay attention to mood fluctuations (mood charting!)  
Get a med organizer box  
Attend to self-care (more sleep and exercise; less Internet surfing)  
Call someone
Therapist:  Linda, I know you’ve had a tough time lately, and I think that’s part of the reason why you might have skipped your meds. (Uses a soft, nonjudgmental tone and compassionate expression to reduce shame, validate Linda’s experience, and engage her in the assessment process by reframing medication noncompliance as a potential expression of current difficulties.) I’d like to see if we can get a handle on what’s driving your mood disruption and all the other things you’ve been struggling with, like school and relationships, so we can get your life back on track. (Highlights the benefits of exploring current problems.)

Linda:  (Looks highly distressed.) I’m back on my meds now, but I still feel crappy. Everything just feels so overwhelming…I’m still having trouble sleeping, and I just can’t seem to focus very well. All I want to do is crawl into bed and not have to deal with anyone or anything. (Slumps down on couch and becomes tearful.)

Therapist:  (Writes observations of Linda’s verbal and nonverbal behavior on the TDM Hypotheses Worksheet as they work on the chain analysis. Considers sleep and emotion regulation deficits and experiential avoidance [emotional and behavioral] as possible TDMs underlying the current hypomanic episode.) I can see how hard this is, Linda, and I’m really sorry you’re struggling so much. I’m pretty sure that if you hang in there with me and we take a careful look at some of these things, we’ll get good information to help us figure out what’s creating this bump in the road. (Continues validating Linda’s experience to strengthen the alliance and help Linda engage in the assessment process. The therapist’s confidence and reframing of the current decline in functioning as a “bump in the road” is meant to elicit hope and increase motivation.)

Linda:  I’ll do my best. I know I don’t want to feel this way anymore.

Therapist:  I know it’s not like you to skip your meds, and you’ve been saying that you’re spending more and more time on the Internet—especially as school has gotten harder and your workload has increased because of your clinic responsibilities. What do you think is going on? (Elicits Linda’s participation rather than offering her own ideas initially.)
Linda: I’ve been feeling pretty amped up lately, which often happens in the spring. *(This is an excellent example of the importance of patients’ observations in developing TDM hypotheses.)* I guess I was trying to ignore it because I didn’t want to think that this could happen again after all these months of being stable on my meds. I know it sounds silly, but I was trying not to think about it and was hoping things would just get better. *(Looks down and away, appearing embarrassed.)*

Therapist: *(Notes Linda’s multiple references to avoiding thoughts and feelings, and adds cognitive avoidance [thought suppression] to the other types of experiential avoidance on the worksheet.)* Well, I have to say that makes a lot of sense, Linda. If I were in your shoes, I’m pretty sure I’d feel the same way and not want to think about it. You’ve been down a long, hard road, and noticing your mood getting unstable again is pretty scary. *(Noticing the patient’s body language, the therapist validates Linda’s coping responses as a way to reduce shame and keep Linda actively engaged in the chain analysis.)*

Linda: *(Sits up and resumes eye contact.)* And then I just lost track of what I needed to be doing and started spending more and more time on the Internet. I keep thinking of more things to research or buy and before you know it, I’ve been up all night. I even forget to eat sometimes. Eventually I just fall into bed and crash, but then I feel even more overwhelmed. *(Sounds somewhat despondent.)* I can’t seem to break this cycle.

Therapist: *(The seasonal context of Linda’s functional decline, including her sleep-wake disturbance and problematic behaviors, further implicate neurophysiological vulnerabilities [emotion and sleep regulation] in the current mood disruption.)* Given what you’re telling me, I think your current struggles are related to neurophysiological mechanisms underlying bipolar disorder that govern emotions and sleep regulations. But I’m wondering what else might be going on to contribute to your stress level and why this particular episode seems so hard to tackle. Is there anything that comes to mind? *(Builds on Linda’s knowledge as a medical student and also encourages her to collaborate in developing additional mechanism hypotheses.)*
Linda: School has been pretty stressful, and with all my coursework and clinic responsibilities, I have no time to do anything. It’s pretty overwhelming. I haven’t been to the gym in weeks, and even though I know it helps my mood, I can’t bring myself to go. I’ve turned down some parties and haven’t been answering my phone, and now I’m afraid my friends are pissed off at me. I just feel so alone, yet I can’t deal with being around anyone. And on top of everything, I just heard that my best friend, Bill, is getting married. I feel like such a failure. Everything just sucks. (Looks down and sounds despondent again.)

Therapist: (Notes that Linda’s avoidance behaviors strengthen negative assumptions regarding her friends’ feelings about her and adds cognitive misappraisal as a potential TDM. Also includes internalizing attributional bias and negative self-schema for ongoing exploration, based on Linda’s comment about failure.) Wow, Linda, that’s a lot of stuff to be dealing with. No wonder you feel overwhelmed. I totally get how discouraging things sound, but I’m pretty confident that we can come up with some good ideas of what’s going on and figure out how to help you get back on track to feeling and functioning as well as you were before. (Validates Linda’s despair while instilling a sense of hope that things can improve.)

The remainder of this session would focus on helping Linda understand how her current difficulties relate to TDMs, using results from the chain analysis to illustrate the interplay among mechanisms and problems. In addition to guiding selection of treatment interventions, linking specific cognitive, behavioral, and emotional symptoms to individual mechanisms increases the patient’s ability to be vigilant for future occurrences, providing opportunities for early intervention and reducing the risk of functional decline and relapse.

Problem Deconstruction Log

Patients often present with less clear-cut difficulties, and in such cases, beginning the deconstruction process by exploring problem situations can be a good strategy. Thought records are commonly used as a means of identifying maladaptive thoughts and coping responses while also illustrating the.
functional link among thoughts, emotions, and behaviors (J. S. Beck, 2011). We developed the Problem Deconstruction Log (PDL; available in the appendix and in downloadable format at http://www.newharbinger.com/28951) to investigate examples of clinically relevant problems in patients' lives. The PDL incorporates patient observations about the deconstructed elements of a problematic situation. By increasing patients' awareness and understanding of their experiences, the PDL helps them generate ideas for changing how they respond to problems and provides a stepping-stone to developing TDM hypotheses.

Although the PDL is a relatively simple tool, it provides rich information about patients' cognitive, behavioral, emotional, and physiological experiences. Therapists may use multiple PDLs across situations to search for recurring themes and behavioral trends that suggest particular mechanism hypotheses and diagnostic possibilities. For example, if PDLs reveal a pattern of self-critical and ruminative thoughts, dysphoric mood, lethargy, and social withdrawal, the therapist would consider depression associated with rumination, behavioral avoidance, and internalizing attributions. Alternatively, if PDLs uncovered that the patient often engaged in excessive worry, catastrophic thinking regarding the lack of sleep, and avoidance of situations where the outcome was unknown, a more likely diagnosis of GAD driven by worry, intolerance of uncertainty, and cognitive misappraisal would be considered. And if a PDL indicates grandiose thinking, agitation and irritability, alternating feelings of depression and elevated mood, and periods of increased goal-directed activities and avoidance behaviors, the therapist would consider a bipolar spectrum condition driven by experiential avoidance, cognitive misappraisals, and neurophysiological vulnerability mechanisms. Depending on the formulation, the therapist can develop a treatment plan that best targets the identified mechanisms. Of course, in all of these scenarios, other mechanisms also might be in play, which is why assessment and discussion of findings with patients is ongoing throughout therapy.

Just as with thought records and chain analyses, the PDL may be used in session to help patients move toward a more curious and collaborative stance as equal partners in the treatment process and later may be assigned as homework to gather data about potential triggers and components of problems. The following example of a PDL completed early in treatment by Tom illustrates its value in the search for TDM hypotheses.
Tom’s Problem Deconstruction Log

Name: Tom
Date: 1/25/13

Problematic situation: Please specify who, what, when, and where.

My colleague talked about what a great opportunity I had with this job transfer.

Thoughts: What were you thinking at the time? Any images?

What if it’s a bad decision? What if I’m not happy with the new job? Maybe I should just stay where I am. At least I know I like it here. But what if I regret not taking a chance? What will my wife think if I don’t accept the new position? She’ll be disappointed in me. What will my boss think of me? How would I explain it if I decide not to accept it? How will I explain it if I want to come back to this job? People will think there’s something wrong with me. Will my dad be disappointed in me again? I kept thinking about the last time I made a career move and what my dad said.

Emotions: What emotions did you feel at the time?


Physical sensations: Did you notice anything in your body?

I was sweaty. I felt a nervous feeling in the pit of my stomach.

Behaviors: What did you do?

I wanted to run away. I wanted to say, “Forget it! I’m not taking the job transfer!” But I just said things like “Yeah, that’s right” and nodded. I didn’t talk to people. I tried to avoid conversations. I kept thinking about the decision and feeling more miserable. I couldn’t stop thinking about it.

Observations: Please indicate anything that stands out for you.

I overthink career and work decisions. I worry about but don’t make decisions. I think about what other people will think about me because of my decisions. I don’t want my father or wife to be disappointed in me. When I feel like this, I avoid people.
Tom had difficulty describing his problems and symptoms, so the therapist introduced the PDL in session to focus on a specific instance of his problem. Tom chose a situation that occurred the previous day at work when a colleague commented on how lucky he was to be chosen for a job transfer. After the therapist guided Tom in identifying the thoughts, emotions, physical sensations, and behaviors involved in this problematic situation, she engaged Tom in a collaborative discussion about what they observed and learned from the PDL. This discussion also helped Tom elaborate on his initial observations, providing more information about possible TDMs.

Therapist: This is interesting, Tom. (Looks over the PDL they had just completed together.) You really know a great deal about your problem. I notice quite a few things when we look at what was happening yesterday at work. What do you notice? (Encourages Tom to make observations before offering her own.)

Tom: I think too much. (Smiles and looks more relaxed.)

Therapist: I was thinking that too. (Uses an easy-mannered tone to convey nonjudgment, which elicits another smile from Tom.)

Tom: I notice that I can spend hours thinking about what to do and never get closer to a decision. I just feel worse and more stuck. And I still haven't figured out what to do. (Looks somewhat stressed and despondent.)

Therapist: (Notes repetitive negative thinking [worry] as a probable mechanism.) Yes, and from what you've told me, that seems to happen when you need to make decisions.

Tom: Yeah, exactly! (Demonstrates an understanding of his problem.) I worry that I'll make the wrong decision. I got really stuck when I was trying to decide to take my current job and make a career change. It's a big deal with my dad if you make a bad career move.

Therapist: So you worry about what your dad will think?

Tom: Of course! Don't get me wrong. He's a great guy and very supportive. But he has his opinions about things, especially about work and money. I don't want to disappoint him or have him think that his son is a loser. (Looks a little embarrassed.)
Therapist: (Notes Tom’s concern about what others think of him, especially his father, and considers possible underlying schemas of being a loser and others being judgmental.) Wow, Tom, those are powerful words. (Uses a compassionate tone while validating Tom’s experience.) So you’re afraid he’ll think you’re a loser?

Tom: Actually, it’s more like I’m afraid he’ll think I’m making bad decisions and then I’ll feel like a loser. I still think back on some of the things he said when I took this job and keep playing them in my mind over and over. I worry that I’m not going to make a good decision now, and then he’ll be disappointed in me again. I can’t stand that. (Looks sad and dejected.)

Therapist: (Considers many mechanism hypotheses, including rumination, worry, fear of negative evaluation, and negative schemas, such as “I’m a loser” and “Others are critical and judgmental.”) Tom, you also said that you worry about what your wife will think. I’m wondering if you could tell me a bit more about that. (Explores the extent of Tom’s worry thoughts and also assesses existing support systems.)

Tom: Sure … I don’t want to disappoint her either. She’s incredibly loving and supportive, but I’d hate for her to be disappointed in me.

Therapist: (Attends to the apparent theme of fear of negative evaluation by others.) So it sounds like you worry about disappointing important people in your life.

Tom: (Smiles.) I always worry about what everybody thinks of me. That’s definitely one of my problems. Even when I know that people will always love me and support me, I worry about what they’re thinking of me—especially if I have to make some big decision.

Therapist: That’s interesting Tom. You worry a lot about what other people think of you even when you have evidence that they love and support you? (Validates Tom’s observations and self-awareness, encouraging him to say more.)

Tom: Yeah, I really overthink and worry about things…things that probably won’t even happen.
Therapist: So if you worry about things that probably won't happen, why do you think you worry? (Assesses metacognitive beliefs about worry.)

Tom: Great question! I don't know. I guess I believe that if I think about things enough, I'll figure them out. I'll find an answer or at least feel more certain about my decision.

Therapist: So worrying feels like a helpful way to figure things out and find certainty? (Notes a metacognitive belief about the positive function of worry and a desire for certainty.)

Tom: Well, I probably never will find certainty, but at least it feels like I'll find clarity about what to do. That's the problem though: no matter how much I think about it, I don't find clarity.

Therapist: And like you said, you often worry about things that might never happen. Would you describe yourself as a worrier?

Tom: Yes and no. When I think about it, I don't overthink everything. I usually don't worry about things at home, but I do worry when I have to make job or career decisions. I worry about all sorts of decisions I make at work too. I worry that people will think, That's a stupid decision. And I spend lots of time remembering decisions I made earlier in my career. It's exhausting sometimes. (Looks worn down as he describes the impact of his anxiety.)

Therapist: (Notes that Tom's worry seems fairly restricted to work-related decisions and that he fears being judged by others for his choices. Also considers that schemas of being incompetent and a loser might fuel distress about work-related decision making.) I bet it is, Tom. You sound pretty tired as you describe all this. It seems like work and career decisions are especially triggering for you. You worry about making good decisions and what people will think of you based on whatever decisions you make. Then you think back to previous decisions too, and it's like a repetitive loop. It seems as though thinking about things will help you find clarity about decisions, but in reality, it's exhausting. You also mentioned that in this situation you experienced physical sensations and other feelings when you thought about these things.

Tom: That's right. I often get this gnawing feeling in the pit of my stomach and I start sweating. I feel kind of sick and want to hide….
That’s when I tend to avoid people. Lately, I even avoid spending time with my wife and kids when I get home. I feel terrible about it, but I just want to retreat and watch TV. That’s not how I want to be. I just get so down and discouraged about this decision facing me that I want to avoid everything. It’s awful. (Hangs his head and slumps down on the couch.)

Therapist: (Adds behavioral withdrawal to TDM hypotheses, noting depressive symptoms.) These are great observations, Tom. It sounds like you’ve already identified quite a few mechanisms that contribute to how you’re feeling and what you’re doing. These are all things that we can work on together. (Validates Tom’s understanding of his problems while also valuing his observations and conveying optimism that they can work on resolving his problems and alleviating his distress.)

Tom: (Brightens up and smiles.) That’s really interesting. I hadn’t put a lot of this together like we just did.

This example of collaboratively reviewing a PDL illustrates the value of deconstructing problems early in the assessment phase. It is equally useful throughout treatment as therapist and patient work to identify which mechanisms contribute to presenting problems (as well as new problems) and understand how those mechanisms impact functioning in specific situations and across multiple domains. All of the methods that deconstruct clinical presentations into more definable and circumscribed components give therapists and patients practical tools to gather a wealth of data that can guide identification of treatment targets and inform selection of clinical interventions. This can enhance both patients’ understanding of their problems and their ability to resolve them.

**Mechanism Assessment Tools**

Beyond general symptom measures, other assessment tools are available to help support or disconfirm mechanism hypotheses. These also can help the therapist identify and focus on mechanisms that may be more relevant than others for a specific individual. Some mechanism measures were described in chapters 2 and 3, and many are in the public domain. We encourage you to
consider using mechanism measures to clarify TDM hypotheses and potential treatment targets and assess patients’ progress throughout therapy, bearing in mind that there are varying usage restrictions based on research versus clinical applications, prerequisite permissions, and other caveats. When possible, conducting online literature searches will keep you updated on new measures being developed. Books offering extensive compilations of psychological assessment measures also are available (Antony et al., 2001; Corcoran & Fischer, 2013a, 2013b; Nezu et al., 2000).

In addition to their utility for treatment planning, these measures can focus patients’ attention on TDMs, enhancing their understanding of what may be driving their presenting symptoms and problems. We often hear comments such as “I never realized that uncertainty is at the heart of so many of my problems” or “Wow, learning about why I worry really shows me why it’s been so hard to just stop worrying.” When patients develop insight into underlying mechanisms, they can become more aware of them, with the goal of targeting TDMs as they are triggered in real time. Treatment may seem less daunting and more promising, which can help comfort patients who present with multiple problems or feel overwhelmed by their symptoms.
E fforts to weave together initial TDM hypotheses generated during the assessment phase serve as the basis of the TDM formulation. By educating patients about TDMs and their association with different problems, symptoms, and diagnoses, therapists can help patients get curious about which mechanisms might explain the experiences that brought them to therapy. More importantly, the therapist can begin to identify potential targets of clinical intervention. Our TDM Formulation Worksheet (available in the appendix and in downloadable format at http://www.newharbinger.com/28951) provides a vehicle for the therapist to think through the formulation with patients, illustrating the relationships among presenting problems, mechanisms, potential impediments, and resources that can support patients as they move through the treatment process.

Discussing the formulation with patients begins with a review of presenting problems, which incorporates initial diagnostic impressions and observational data to illustrate how problems relate to mechanism hypotheses. It is important to make sure that the formulation addresses all clinical concerns.
that are a focus of treatment. Specific examples of presenting problems gathered during assessment can illustrate the many ways that underlying mechanisms come together to drive and maintain problems and contribute to patient suffering. This characterizes problems as expressions of underlying vulnerabilities and patterned responses to stressors, which paves the way for selecting interventions that will specifically target those TDMs. Vulnerability mechanisms help frame problems in the context of trait-like variables such as genetic predispositions and constructs formed early in individuals’ development (e.g., schemas). Response mechanisms guide the therapist toward interventions that will actively change how the patient responds to and copes with stressors and triggers of vulnerability mechanisms. The TDM formulation also includes any relevant factors that could worsen problems or impede treatment, as well as patient strengths that can maximize the effectiveness of interventions.

Introducing the Formulation

Rather than the therapist presenting a completed narrative of how certain mechanisms drive and maintain patient problems, development of a TDM formulation is a collaborative process that involves mutual sharing of information, observations, and perspectives about how presenting problems and symptoms relate to mechanism hypotheses. A TDM formulation and the mechanism hypotheses from which it evolves may—and often do—change as therapy progresses. This is not surprising, since the formulation is driven by an empirical process that includes continued observation and assessment of the patient’s behavior and functioning across life domains as the therapist tests the veracity and appropriateness of TDM hypotheses and monitors patient responses to interventions.

Diagnostic Impressions

As the previous chapter illustrates, diagnostic considerations serve as an important springboard for developing TDM hypotheses to understand patients’ problems. Differential diagnosis is particularly relevant when the same mechanisms underlie different disorders. For example, a deficit in emotion regulation is a common vulnerability mechanism across disorders, including bipolar spectrum disorders, pervasive emotion dysregulation (e.g., BPD), and trauma and dissociative disorders (e.g., PTSD). However, the exact nature and
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presentation of that vulnerability differs across those disorders and influences the type of intervention required to treat it, such as whether medication is indicated and, if so, which ones. Thus, skill development is a core intervention for BPD (Linehan, 1993a), PTSD responds well to exposure-based treatments (Foa et al., 2007), and medication typically is necessary for sustained mood stabilization in bipolar disorder (Goodwin & Jamison, 2007).

When discussing diagnostic possibilities with patients, it is important to think about how the information will be received by them, as their response can provide additional information about mechanism hypotheses. For example, individuals who are highly anxious or self-critical might hear information about their diagnoses as judgmental or worrisome, which could increase distress and interrupt their ability to engage in therapy. Patients who are easily overwhelmed and thus tend to avoid their emotions might focus on diagnostic considerations in an emotionally detached and intellectual way that actually exacerbates the mechanisms targeted by the formulation. The therapist must assess what is best for each patient and discuss diagnostic considerations in a manner that augments, rather than impedes, the patient’s ability to collaborate in developing the formulation and engage in the treatment that flows from it. In general, we have found that sharing information with patients in a thoughtful, compassionate, and respectful manner often provides a context in which to better understand their problems, resulting in greater ability to engage in treatment and a stronger therapeutic alliance. Also, the empowerment that comes with increased knowledge can help patients turn toward their problems, experience an increased sense of control over them, and get much-needed relief for long-standing emotional pain.

Observational Data

Clinicians continually must scan for information that will yield a more accurate and comprehensive understanding of patients’ problems and lead to more effective treatment decisions. The subtleties of language in how a patient refers to herself and the problems for which she is seeking treatment, a downward glance as we ask a patient about how his symptoms have affected his relationships and ability to work, and the discrepancies that become apparent as we compare mood, affect, and demonstrated behavior with responses to an intake and screening tool all convey critical details of a patient’s experiences. For example, we might consider negative self-schema as a TDM for depression and find support for this hypothesis as we note that the patient can barely look at the therapist while discussing her inability to get out of bed and help her
children dress for school. Similarly, as we discuss reducing an anxious patient’s intolerance of uncertainty, he may blurt out, “There’s no way I’m giving up worrying about things!” In addition to providing insight into his motivation to engage in some treatment interventions, this suggests that metacognitive beliefs about worry might be involved in maintaining his symptoms and be worthy of exploration. While inconclusive as isolated data points, these observations and others like them provide support for or against mechanism hypotheses and can refine the TDM formulation in the same way that a chef observes how ingredients are coming together during the cooking process to fine-tune the recipe for a desired dish and guide her decisions in creating it.

Returning to Linda, the bipolar medical student, the following dialogue illustrates how the therapist might engage her in a discussion of TDM hypotheses based on the chain analysis, incorporating diagnostic information and observations to explain the recent hypomanic episode and associated problems.

**Therapist:** I really appreciate how you hung in there with me to do that chain analysis. I know it wasn’t easy for you, and I certainly couldn’t have done it without your help. *(Validates the difficulty of the assessment process and underscores the importance of collaboration.)*

**Linda:** Yeah, all of this is pretty hard. I just want to feel better.

**Therapist:** I want you to feel better too, Linda. I think we uncovered some really good ideas about what might be making your life so difficult right now. One of the main things is that it’s springtime, and as you’ve experienced, people with bipolar disorder often respond to the seasonal changes in time and light by becoming hypomanic, or amped up as you put it. I’ve been noticing that you’ve had some trouble staying on topic and have been talking somewhat fast, and I’m wondering if you noticed this too. *(Offers observations of Linda’s behavior, framing current difficulties in the context of seasonal affective changes known to be at play in her diagnosis, and invites Linda to share her own observations of her behavior.)*

**Linda:** Yeah, I figured that’s what was going on when I had trouble focusing in class and wasn’t even tired after not getting much sleep. I just couldn’t pull myself away from the Internet, even though I knew I was falling behind. I guess I was afraid to admit that my mood was getting unstable, especially because I was feeling kind of good, which made it much easier to not take my meds. *(The
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therapist notes Linda’s reference to cognitive, behavioral, and emotional, avoidance and adds this to the TDM Formulation Worksheet.

Therapist: (Speaks in an easy manner to reflect nonjudgment.) Well, as you know, that’s the double-edged sword of bipolar disorder: the hypomania feels good, which makes it hard to think about it as a harbinger of the mood crash that inevitably follows. The good news is that a few changes in your routine—like getting back to a good sleep-wake schedule, shutting down electronics well before bedtime, and eating healthy foods—will be a big help in stabilizing your mood and getting you back to feeling better and functioning at your potential, especially since you’re taking your meds regularly now. (Links Linda’s experiences with her diagnosis and related vulnerability mechanisms of emotion and sleep regulation triggered by seasonal changes. Also notes the importance of taking medication and instills hope by mentioning interventions known to be effective for bipolar mood stabilization.)

Linda: I know I don’t want to go through this again, so I’m willing to do whatever it takes to keep getting better. (The therapist notes that Linda seems very motivated and willing to engage in treatment.)

Therapist: Let’s make sure to keep up with daily mood charting to monitor how you’re doing. Depending on how things continue to progress, we can adjust our formulation and make whatever changes we need in your treatment plan. (Notes the dynamic nature of the formulation and its relation to ongoing assessment.)

While every patient presents unique strengths and challenges, this vignette provides a general idea of how therapists might focus on diagnostic issues and behavioral observations to begin discussing the transdiagnostic formulation with a patient.

Incorporating Problem Examples and Mechanism Measures

Examination of specific problem examples and data gleaned from mechanism measures allows therapists to discuss presenting problems as cognitive, behavioral, emotional, and physiological or sensate expressions of vulnerability and response mechanisms. At this point the therapist should have a fairly good
sense of which mechanisms correlate with identified problems, though these hypotheses must be tested via patient responsiveness to selected interventions and other evaluation methods. The mechanism hypotheses generated during situational and functional analyses of specific problem examples and other assessment tools become the building blocks for a transdiagnostic formulation that informs and guides selection of interventions to effectively target those TDMs. This puts therapist and patient well on the road to resolving the patient’s problems, improving functioning, and enhancing overall quality of living.

**Mechanism Hypotheses Generated from a Chain Analysis**

Staying with Linda, we now illustrate how to continue the discussion of the TDM formulation by linking problem examples to specific mechanisms that can shed light on presenting problems and symptoms.

*Therapist:* One of the reasons it’s important for us to do these chain analyses and look at specific examples of how you’re struggling is so we can figure out what might be destabilizing your mood and contributing to your academic problems and difficulty connecting with your friends. Our main goal—aside from helping you feel better, of course—is to try to identify the underlying mechanisms driving these different problems. That will help us figure out which interventions make the most sense to help you get back on track toward the things that are important to you, like feeling strong and competent, doing well in school, taking care of yourself, and interacting with friends. *(Briefly reiterates the concept of TDMs to engage Linda in the process of exploring mechanisms and developing the formulation.)*

*Linda:* I know we’re going to be working on the bipolar issues to stabilize and maintain my mood. It sounds like we’ll also be trying to understand some of the other problems I’m having, like being so hard on myself and avoiding my school responsibilities and friends.

*Therapist:* That’s right, Linda. So, looking back at this chain analysis we did during the last session *(pulls out Linda’s chain analysis worksheet)*, we can actually go through it and see where some of these mechanisms might be in play with the different things you struggled with
along the way. (Pulls out a TDM Formulation Worksheet.) We can use this other worksheet to list our mechanism ideas and come up with a formulation that ties everything together so we can understand what happened—and hopefully prevent similar scenarios in the future. I made some notes about possible mechanisms when we were doing the chain analysis (shows Linda the TDM Hypotheses Worksheet) so we can consider all the possibilities for what might be underlying your current problems.

Linda: Well, one thing we know for sure is that biological factors are involved since I have bipolar disorder and the change in seasons seems to have triggered some hypomania. (Draws on her knowledge of bipolar disorder to identify a potential mechanism.) Would that be a mechanism?

Therapist: Absolutely! It’s a deficit in emotion regulation, which is neurophysiologically driven—that’s why the meds are so helpful. (Links the problem, mechanism, and intervention.) And since your sleep-wake cycle also got disrupted and likely contributed to your mood instability, as is often the case in bipolar conditions, we’ll list sleep regulation deficits as another possible mechanism. (Provides brief psychoeducation and lists both of these as vulnerability mechanisms on the worksheet.) One thing I noticed as we were going through the chain analysis was that you made a number of comments about not wanting to think about what was happening and wanting to crawl in bed and not have to deal with anyone. I’m wondering if you could say a bit more about that, especially how those coping strategies might have affected you—even though they probably made sense at the time. (Seeks more information about initial hypotheses of cognitive, behavioral, and emotional avoidance as potential TDMs.)

Linda: I was feeling so energized. I kept researching things on the Internet and buying stuff. I just couldn’t pull myself away. When I realized I forgot to take my meds for a few days, I knew it wasn’t good for me, but at the same time I was trying not to think about it because I just get so sick of having to take them and do things like mood charting and exercising. I just want to be normal.… (Looks a bit sad and ashamed.) Then I’d get really tired and feel awful after not sleeping very much, so the thought of having to deal with anyone just got overwhelming.
Therapist: Let me see if I'm getting what you're saying. It sounds like you had some sense that you weren't doing well, especially when you went off your meds, but then maybe you got a little scared of thinking about that and what it meant in terms of having bipolar disorder. So you kept doing things like Internet surfing and skipping class to get you away from those thoughts and maybe even some anxiety and sadness about how you were doing. Is that right? (Shares her understanding of what Linda is describing and checks the accuracy of more refined mechanism hypotheses regarding cognitive, behavioral, and emotional avoidance.)

Linda: Yeah, and then when I started missing class and avoiding my friends—because they can always tell when I'm not doing well—I got even more overwhelmed and ashamed. Then I couldn't reach out to them for help because by then I was sure they were pretty pissed and didn't want anything to do with me. Hearing about my friend Bill getting married was the icing on the cake because I felt so alone. I just kept feeling worse and worse, no matter how much I tried not to think about it, until I realized I was getting pretty depressed and called you.

Linda: (Seems more engaged as the therapist reframes elements of her recent mood instability as manifestations of TDMs.) That makes a lot of sense. This is starting to feel a little less overwhelming the more we link everything together, and I can see why things fall apart.

Therapist: (Smiles and speaks enthusiastically.) That’s the whole point of doing this. We try to break things down into simpler concepts so we can have a better understanding of what’s going on. And the mechanisms we identify will help us choose interventions that will specifically address your problems so you can get some relief.

Linda: (Appears more hopeful.) That sounds pretty good!

We want to point out that in this vignette the patient is highly educated, so using clinical terminology (e.g., “neurophysiological,” “cognitive misappraisal”) to label the mechanisms when discussing the TDM formulation is appropriate. It is important to have a solid feel for individual patients and to use terms that make sense to them and do not sound condescending, overly technical, or otherwise offensive and potentially damaging to the therapeutic alliance.
Mechanism Hypotheses Generated from a PDL

In the next vignette, we return to Tom to illustrate how to discuss the TDM formulation with a patient who presents with more diffuse problems and less knowledge about them. As the therapist builds the formulation with Tom, she writes the different mechanisms, illustrating how they relate to his problems. We recommend using diagrams to help patients visualize the formulation as it is being discussed and have included an example a bit later in the chapter. We also recommend giving patients a copy of any diagrams drawn during sessions so they can continue to generate ideas and analyze data that will support their treatment.

Therapist: (Speaks enthusiastically and reviews Tom’s PDL with him.) Tom, I think we’re off to a great start on understanding your problems. Let’s review what we’ve learned thus far so we can start making a treatment plan. How does that sound?

Tom: (Sounds a bit more hopeful.) That sounds great. I want to know what I need to do to start feeling better, and already I can see some things that will help me.

Therapist: (Noting Tom’s motivation, the therapist fosters his curiosity about mechanisms and their involvement in treatment planning.) That’s great, Tom. What are some of the things you see?

Tom: Well, the first thing is that by isolating myself from people, especially my wife and kids, I only feel worse. I start feeling depressed. Then, the more depressed I feel, the less I want to face my decision and life in general. I try not to think about things, but it doesn’t work. When I’m alone too much, I can’t help but think too much, and then I feel worse. It’s a vicious cycle.

Therapist: (Supports Tom’s observations and ties them to diagnostic considerations about mechanisms and Tom’s example from the PDL.) Those are great observations, Tom! Yes, as we learned earlier when we reviewed your symptom measures, you have some mild depressive symptoms—not so severe that you don’t function, but enough to make you feel uncomfortable and down. When people are depressed, they often withdraw from activities and other people, which worsens their depression. They usually have some negative thoughts, especially about themselves, which can tap into
underlying beliefs that influence how they think. For example, you told me that you have underlying beliefs and fears that maybe you’re a loser. It seems as though this belief, or your fear that this belief may be true, really affects you when you have to make important work-related decisions, especially ones like this. Does that pretty much capture what you’re experiencing? (Checks with Tom to make sure her conceptualization of his problem accurately reflects his experience. This ensures that the therapist and Tom are in agreement, underscores Tom’s collaborative role in his treatment, and validates his understanding of himself and his problems.)

Tom: Yeah, that pretty much sums it up. I don’t go around thinking I’m a loser all the time, but that fear is always there, and it comes up a lot when I have to make work decisions, especially big ones about my career.

Therapist: (Begins educating Tom about mechanisms.) We often refer to underlying beliefs like that as schemas, meaning deep-down beliefs we have about ourselves, others, or the future. These underlying beliefs can get triggered and give rise to other problems, like negative thoughts, upsetting emotions, and problematic behaviors.

Tom: Hmm… I certainly have fears about being a loser. When I get stuck worrying that maybe I really am a loser, I get depressed, think lots of negative thoughts, and worry about making decisions that will show I’m a loser, so I avoid making any decisions. I try to stop thinking about things, but the thoughts don’t go away. I worry even more and feel more stuck…. This is starting to make a lot of sense! (Seems much more engaged in the discussion of the TDM formulation.)

Therapist: (Validates Tom’s observations and comprehension of his problems while reinforcing and encouraging him to continue taking an active and curious stance toward them.) Tom, you’re really good at this. That sounds right to me too. You just identified a couple of other mechanisms that seem to be in play here. You mentioned lots of negative thoughts and worry, as well as the fact that you avoid making decisions. You get to a point where you try to stop thinking about things, but that doesn’t work. When we completed the PDL together, we discussed how you sometimes believe that if you worry or think about a decision enough, you’ll find more clarity or
certainty about it and solve what you're worried about. But, as we're learning, that strategy isn't working so well, is it?

Tom: It sure isn't.

Therapist: Right. So we can work together to understand why you worry, in addition to finding ways to help you make decisions and worry less.

Tom: That sounds really good. I'm also wondering how social anxiety ties in with all this, since we talked about it last week after I didn't go to the office party.

Therapist: That's a great question, Tom. As we discussed earlier, you meet the criteria for social anxiety disorder. You're often concerned about what other people think about you, so you avoid interactions when you fear that others might criticize you. And you spend lots of time in your head reviewing social interactions to be sure you didn't say or do anything that would lead people to judge you negatively. You also worry about future interactions for the same reason. These all seem like variations of something we call repetitive negative thinking, which is a way of saying that you think about things over and over. Your negative thinking became really prominent when you faced this career decision, which triggered a fear of making the wrong choice. For you, fears of making a wrong decision seem to be related to fears about what people will think about you, which is a symptom of social anxiety and probably connects with your fears of being a loser too.

Tom: That nails it!

Therapist: You also observed that you get even more stuck and feel worse when you spend time worrying about future outcomes and reviewing past events. You feel depressed and stuck but also anxious. You even have some physical symptoms of anxiety. (Refers to the PDL and points out the emotional and somatic components associated with his repetitive negative thinking.)

Tom: Yeah...I get depressed and anxious.

Therapist: That's right. So we can see how these underlying mechanisms of repetitive negative thinking, negative schemas, and avoidance of
people and making decisions all seem to contribute to both your depression and your anxiety.

*Tom:* (Looks contemplative.) That’s interesting. I didn’t realize that they’re tied together, but it makes a lot of sense. It seems like feeling depressed and anxious go hand in hand for me. It’s interesting to see how making this career decision really set me off and tapped into a bunch of things.

*Therapist:* Exactly! Let’s look at what we’ve learned about how this decision set off different mechanisms that contribute to your problems. *(Discusses the following TDM diagram with Tom.)*
Developing Tom’s TDM Formulation

Problem Not making job decision

Problem Anxiety

Response mechanisms
Repetitive negative thinking (worry, rumination)
Cognitive avoidance (thought suppression)
Behavioral avoidance (withdrawal, situational avoidance)
Emotional avoidance

Problem Depression

Problem Decreased time with family

Vulnerability mechanisms
Intolerance of uncertainty (re: making decision about job)
Fear of negative evaluation
Negative schemas ("I’m a loser; Others are critical and judgmental")
Metacognitive beliefs about worry

Triggers
General: Job/career decisions
Immediate: Offered job transfer
This formulation diagram is a rudimentary illustration of mechanisms hypothesized to be in play to account for Tom’s presenting problems and what appears to have triggered them at this time. While it does not capture potential mediating or moderating relations among different mechanisms and problems, its simplicity benefits both the therapist and Tom in clarifying how vulnerability and response mechanisms and problems tie together in developing the formulation.

Tom: (Looks very relieved as the formulation gets solidified.) Wow, you got it! It’s amazing that you could figure out so much so quickly.

Therapist: (Smiles warmly.) Well, Tom, actually we figured it out together. I’m just reviewing everything you told me. All of these observations came from you. (Helps Tom see how much he contributed to figuring out his problems, how helpful and accurate his observations are, and how he can actively play a role in his treatment.) I’m just putting the information into a framework that helps us clarify the underlying problems, or mechanisms, that we can work on in therapy.

Tom: That’s really great. Things seem so much clearer to me now. It makes sense that I was in a funk given all these things I’ve been struggling with. I wasn’t sure how therapy was going to help me, but now that we’ve been able to break down my problems and take a closer look at them, I can see that I’ve got some actual things to work on.

Tying It All Together

As Tom’s therapist ties together what she has learned thus far, she makes some additional observations. Tom’s depressive symptoms, which he experienced twice before as an adult, have been relatively mild, with minimal impact on his functioning. Mechanisms related to depressive symptoms, including negative schemas, rumination, and behavioral withdrawal, appear to contribute to Tom’s problems and symptoms. The therapist also notes that Tom mentioned how important his father’s opinions are to him and that he worries about disappointing his father if he does not make the right choice about his job situation. Consequently, he replays previous discussions with his father about career decisions. To refine the TDM formulation even further, the therapist later will explore how Tom’s relationship with his father may have played
a role in creating his negative schemas about being a loser and seeing others as critical and judgmental, and his ongoing worries related to decision making.

Worry is one of Tom’s core problems, and he holds metacognitive beliefs about the positive function of worry. Tom’s worry thoughts appear connected to difficulty tolerating uncertainty related to work and decisions about his career. The focus of his worry is predominantly related to themes about how others will judge him. Although he experiences some physiological symptoms of anxiety, they are not a prominent problem and do not trigger catastrophic fears about physical sensations or symptoms, ruling out panic disorder. Tom’s TDM Formulation Worksheet is reproduced here.
Tom’s TDM Formulation Worksheet

Name: Tom                      Date: 1/25/13

Identified problems
- Feeling “in a funk,” “down and stuck,” mild depressive symptoms
- Feeling “stuck on worry thoughts” about decision making, “worries too much,” anxiety symptoms
- Difficulty making a decision about job transfer
- Withdrawing from family and concerned about negative impact on family

Hypothesized mechanisms (from the TDM Hypotheses Worksheet)
- Intolerance of uncertainty
- Fear of negative evaluation
- Negative self-schema
- Metacognitive beliefs about worry
- Repetitive negative thinking (worry, rumination)
- Experiential avoidance: cognitive (thought suppression), behavioral (withdrawal and situational avoidance), and emotional

Narrative or diagrams of how the mechanisms fit together and explain patient problems

Trigger: Offered job transfer → Vulnerability mechanisms (A–D):
- A. Uncertainty about decision/intolerance of uncertainty
- B. Concerns about disappointing others/fear of negative evaluation
- C. Negative schemas about self and others
- D. Metacognitive beliefs about worry → Response mechanisms:

Repetitive negative thinking: worry and “replaying” previous discussion with father → Feels more “stuck” → Tries not to think about decision because he feels worse (cognitive and emotional avoidance) → Avoids people (wife, kids, conversations with coworkers) → Feels down, discouraged, anxious → Repetitive loop with vulnerability mechanisms (A–D) continues

Factors that could worsen problems or impede treatment
- Time pressure to make decision and let boss know

Patient strengths and resources that could support and facilitate treatment
- Very pleasant and likable
- Supportive spouse, has social supports, “many blessings”
- Motivated to make changes
- Excellent rapport, participates in session
The therapist now has much more data to make sense of her initial observations about Tom's behaviors. Tom's phone call to initiate treatment was late in the evening on a weekend when he wasn't likely to reach the therapist directly, and he did not answer his phone when the therapist repeatedly attempted to contact him, which seem like avoidance behaviors related to social anxiety. Tom’s visible discomfort and description of being lost in thought during the intake session support the TDM hypothesis of repetitive negative thinking. The therapist also observed how Tom's social skills may be compromised when he becomes anxious in situations involving potential evaluation by others. Whereas he initially avoided eye contact and crumpled his intake forms, the therapist observed that Tom's skills improved as the therapeutic alliance evolved and he became more comfortable with her. Nevertheless, whenever Tom discussed his problems in session he often looked away and appeared to be lost in thought. The therapist also noted that Tom seemed quite aware and accepting of his problems, based on her observation that he would catch himself engaging in these behaviors in session and would then chuckle, become much more present, and comment, “I'm doing it again!”

Assimilating all of the data gathered during assessment (including results from any mechanism measures used) puts clinicians in a good position to discuss the TDM formulation with patients. By encouraging patients to make observations of their own experiences surrounding presenting problems and illustrating how problems relate to mechanisms, therapists strengthen the collaborative alliance, facilitate patients' sense of self-efficacy, and prepare them for a lifetime of managing their own problems long after therapy ends.

**Additional Factors to Consider**

It is important to consider environmental stressors, medical problems, and other factors that may worsen problems or impede treatment. For example, Linda's status as a medical student poses rather significant challenges, in terms of both her busy schedule and its associated responsibilities. She has to work long hours to keep up with her academic and clinical responsibilities, which likely disrupts her normal sleep-wake cycle, reduces her amount of sleep, and prevents her from getting adequate exercise, all of which have potentially destabilizing effects on mood (Miklowitz & Johnson, 2006; Harvey et al., 2011). Tom’s therapist must take into account his ongoing relationship with his father, who reportedly is quite opinionated about Tom’s decisions, and how
that may affect Tom’s ability to engage in interventions and move toward more effective strategies to manage his anxiety.

Similarly, if a patient’s housing situation is stressful and lacks privacy, that could make it difficult to complete homework plans (e.g., exposure-based exercises), potentially reducing the efficacy of some interventions. Patients who are unable to work and adequately support themselves as a result of their problems might live in an invalidating environment (e.g., with an abusive spouse or a harshly critical parent), which could potentiate TDMs and reduce responsiveness to interventions. A serious medical condition might exacerbate a patient’s anxiety and mood problems or make it difficult to come to therapy. All of these variables have significant impacts on patients’ lives and must be addressed in the TDM formulation, which may lead to additional mechanism hypotheses and potential modifications to the treatment plan.

Patient strengths that will support and facilitate treatment also are crucial to the case formulation and treatment plan. For example, if a patient is quite resilient and typically responds to stressors as a welcome challenge instead of being overwhelmed and incapacitated by them, that individual may have an easier time engaging in treatment, no matter how bumpy the road becomes. Similarly, having strong social and emotional supports, such as compassionate friends and family members, 12-step networks, and volunteer activities, creates multiple ways to offset the emotional drain of therapy. Patients who have a fair amount of structure in their lives to keep them engaged in activities and interpersonal interactions may be less likely to become depressed (Martell et al., 2010), which may help them sustain progress. Finally, knowledge of internal and external resources can inform selection of interventions that build upon patient strengths.
PART 3

Planning Treatment
Developing Treatment Goals

TDM formulations derived from the assessment process provide therapists with guidance in treating patients’ presenting problems and symptoms by identifying the mechanisms that will inform selection of clinical interventions. Treatment planning involves establishing global therapy outcome goals and mechanism change goals, identifying measurable markers of progress, assessing individuals’ readiness to change, and prioritizing treatment goals. Our Treatment Goals Worksheet (available in the appendix and as a download at http://www.newharbinger.com/28951) is designed to aid you in this process.

While many people come to therapy simply wanting to “get better,” they often find it difficult to articulate what that will look like. Defining global outcome goals helps them operationalize what “getting better” means for them. This is a critical therapeutic task that allows both therapists and patients to know where therapy is headed and map a course to get there. In addition to defining the path toward achieving global outcome goals, mechanism change goals also become the primary targets of clinical intervention and a gateway to maintaining long-term change. Based on the TDM formulation, mechanism change goals are established, along with measurable markers for assessing change and treatment effectiveness. Similar to other case formulation models (e.g., Persons, 2008) and standardized treatment paradigms (e.g., Linehan, 1993a), therapist and patient work together to prioritize global outcome and
mechanism change goals based on consideration of individual needs, safety and motivational issues, and practical limitations. Agreement on immediate and long-term treatment targets, with frequent opportunities to assess patient progress toward identified goals, underscores the collaborative partnership and builds a path toward successful therapy outcomes. In addition to informing intervention choices, the identification of clear and measurable treatment goals structures therapy and signals when the patient is making progress.

Global outcome goals and mechanism change goals are interwoven and often overlap. For example, resuming driving on freeways and bridges reflects both a general outcome goal and mechanism change goal (reducing experiential avoidance). Global outcome goals establish what successful treatment will look like when mechanism goals are achieved. However, it is the mechanism change goals that become the primary targets of treatment interventions. When patients begin therapy, they often are unaware of the mechanisms underlying their problems. Identifying TDMs allows therapists to set goals aimed at changing patients’ responses when vulnerability mechanisms are in play. While clear global outcome goals help us know whether we are reaching our current destination (e.g., driving on previously avoided freeways and bridges), they can also reflect markers of change in multiple mechanism goals (e.g., increasing acceptance of panic sensations, changing beliefs about the ability to cope with feelings of anxiety, decreasing avoidance behaviors), which ultimately become the final destination. Mechanism change goals act as GPS coordinates to inform and direct treatment and guide patients long after therapy ends. Achievement of global outcome goals—what therapists and patients see along the way as mechanisms change—indicates that the GPS is guiding us in the right direction.

Global Outcome Goals

Global outcome goals allow both patient and therapist to be clear about their agreed-upon current destination: the patient getting better and feeling better, and what that will look like. For example, Linda came to treatment following a temporary leave of absence from medical school because of bipolar disorder; she wanted help in managing her symptoms and resuming her education. However, many individuals have not even thought about treatment goals, and how we define “getting better” is a critical step that varies with each patient. In Tom’s case, he sought therapy because he felt in a funk, but he was not sure
about the exact nature of his problems other than feeling stuck because of excessive worry and discomfort about a potential job change.

When deciding upon outcome goals, it often is helpful to discuss the distinction between getting better and feeling better. Consistent with Aaron Beck’s tripartite model of cognitive behavioral therapy (1976), people often get better (i.e., experience improvements in behavioral and cognitive markers of change) before they start to feel better emotionally. In fact, symptoms often worsen before they improve. Helping patients understand these caveats can be an important safeguard against reduced motivation and premature termination. Once outcome goals are defined, therapists can identify a range of cognitive, behavioral, and affective benchmarks that will indicate whether a patient is making progress.

**Defining and Operationalizing “Getting Better”**

We have several recommendations for helping individuals identify global outcome goals and ways to quantify them. We encourage you to use and modify these based on individual patient needs.

**Patient Goals for Treatment**

The simplest way to begin the discussion of outcomes is to ask, “Have you thought about your goals for treatment?” or “What are you hoping to achieve in therapy?” Many patients have not thought about these questions because they are consumed by their pain and simply want to feel better or experience less disruption in their lives. In these situations, asking what feeling better would look like specifically for the patient can generate clear and measurable goals. Thus, a patient might work toward feeling less depressed or anxious, socializing more, or reducing the amount of time spent engaging in compulsions. Tom likely will want to feel less anxious, spend less time worrying, make decisions more easily, and engage in additional activities with his family. Linda initially might work toward stabilizing her mood so she can return to medical school and pursue her dream of becoming a physician. Later on, her goals might include more effective management of stressors, spending quality time with friends, and increasing awareness and self-regulation of mood states.

Another way to delineate global outcome goals is to ask, “If you and I are successful in this therapy, how will your life be different?” This often helps patients put outcome goals in the context of their current situation with an eye
toward improving their lives and restoring hope. For example, one person might want to stop avoiding people and socialize more, whereas another person might want to get a job and move out of his parents’ home. Therapists can work with patients to assess how realistic their goals are, using psychoeducation and motivational interviewing as necessary to facilitate acceptance of problems and guide the discussion toward more achievable goals. For example, if a patient’s goals include “I wouldn’t be bipolar” or “I would do everything perfectly,” the therapist can provide information to help normalize the patient’s struggles and set more realistic outcome goals, such as learning how to live a valued life despite a chronic condition or learning to accept imperfections.

**Benchmarks of Change**

Monitoring mood and noting symptom reductions are common ways therapists assess whether patients are “getting better.” However, we recommend going beyond symptom measures with questions such as “How will we know if you are achieving your treatment goals?” to help visualize what progress will look like for each patient. In addition to obtaining lower scores on symptom inventories, objectives might include maintaining balanced mood (denoted by a quantified range such as +1 to –1 on a scale of +3 to –3) or improving on idiographic measures of change, such as engaging in a certain number of activities each day. Thus, Tom’s therapist might ask him to complete weekly measures of depression and anxiety, monitor activities and time spent with his family, and track frequency of and amount of time spent engaging in worry thoughts. Linda might do mood charting to monitor depressive and hypomanic states while also tracking sleep patterns and medication compliance. As treatment progresses, Linda’s therapist might also track her class attendance and completion of clinical responsibilities, along with time spent surfing the Internet and engaging in activities with friends. Measurable markers of success are specific to each patient; examples include having fewer arguments with coworkers, leaving the house without engaging in checking rituals, or spending less time worrying when things are not “perfect.”

**The Miracle Question**

The miracle question, a technique from solution-focused brief therapy (deShazer, 1988), helps individuals imagine what life might look like if a miracle occurred overnight and the problems that prompted them to seek therapy no longer existed. If necessary, therapists gently guide patients away
from unattainable outcomes (e.g., “I would never get anxious”) while also validating their desire to be free of their problems. Instead, clinicians help patients think about what might be different if their presenting problems did not dictate how they currently live their lives. Thus, the “miracle” might involve living a productive, balanced, and fulfilling life with bipolar disorder, or reaching the point where fears of injury or illness do not prevent the patient from participating in desired activities, such as joining the office softball team. This is another way to identify global outcome goals, building a scenario in which presenting problems are not governing the person’s life.

Various ways to pose the miracle question have been described (e.g., deJong & Berg, 2008; Metcalf, 2007). We utilize a slightly modified version: “If a miracle occurs tonight while you are sleeping and your problems no longer dictate your life, what will it look like when you wake up tomorrow?” While some individuals may need gentle prompting, most people can begin to articulate how their lives would be different if therapy were successful. For example, we might hear that an individual would return to school and complete her doctoral degree, whereas someone else might say he would no longer leave work whenever he experiences panic sensations. Questions that address motivation and identify resources build on the miracle question. For example: “What would you be willing to do to get what you want?” and “What are some of the things that might get in the way of achieving your goals, and how can we resolve them?” Such questions also help clinicians generate solutions to potential stumbling blocks that could impede goal attainment.

**Narrowing the Focus**

Sometimes asking patients to think about global outcome goals may contribute to feelings of hopelessness and cause them to feel overwhelmed, especially if therapists are seeking a longer-term perspective (e.g., “What do you want your life to look like five to ten years down the road?”). In these instances it is helpful to narrow the focus to make the discussion more manageable (e.g., “What if we could change only one thing—what would that be?”). Using a rating scale to assess patients’ view of their current position can help therapists prioritize outcome goals and inform decisions about where to start treatment; for example, “If 1 indicates that life is pretty miserable and 10 means that your life is exactly how you want it to be, where are you right now?” Thus, if a patient with severe anxiety can barely leave her apartment, a first step might be referring her for a medication evaluation to reduce debilitating symptoms and facilitate more effective participation in therapy.
We encourage you to be creative and sensitive in finding techniques that work for you and your patients, maintaining balance between forward progress and realistic expectations. For example, you might ask, “If your problem were still there but you could enjoy your life, what would that look like?” This modification is particularly useful when treatment is focused on helping the person cope more effectively with an unsolvable situation (e.g., a terminal illness or catastrophic life event) in order to experience a more enjoyable and fulfilling life. For example, if a returning soldier develops depression secondary to partially losing one of her legs and is adjusting to use of her prosthesis, she and the therapist might work toward helping her resume previous activities, such as coaching her daughter’s soccer team, going on walks with her husband, and getting together with friends. While she will never get her leg back, she can work toward creating a more fulfilling life by reengaging with her family and resuming independent and meaningful activities, which also will help reduce her depression (Martell et al., 2010). The following dialogue illustrates the therapist’s skill and sensitivity in helping this patient (Jill) identify these goals and increasing her motivation to engage in therapy.

_Therapist:_ I understand that life feels pretty unbearable right now, especially because you led such an active life before you lost your leg. I'm wondering if we can take some time to see if we can find some things to work toward in therapy that might help you feel better. (Balances acceptance and change techniques by validating the intensity of Jill’s pain while inviting her to consider how therapy might improve her life, despite how grim things seem in the moment.)

_Jill:_ It’s hard to imagine ever getting my life back and feeling better. I can’t do any of the things I used to do before….I feel so helpless and dependent on everyone—even my kids. And that just sucks. (Her voice fades as she looks down toward her prosthetic leg.)

_Therapist:_ I’m not going to presume to know what you’re going through, Jill, but I can tell you that I think there are some things we can work on to improve your quality of life and reduce your depression. (Acknowledges Jill’s pain while instilling a sense of hope regarding improvement.)

_Jill:_ (Looks up and appears interested.) What do you have in mind?

_Therapist:_ Well, if you’ll indulge me a moment, I’d like to ask you a question: Even though we can’t undo what the roadside bomb did to your
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leg, I wonder what your life would look like if a miracle happened overnight while you were sleeping and you woke up tomorrow having the life you wanted. How would things be different, even if you still didn't have your leg? (Introduces a modified version of the miracle question.)

Jill: Well, that's a little hard to imagine, but I think I would wake up not feeling so depressed and thinking my life was over. I'd be able to do things with my husband and kids, and I wouldn’t feel so helpless.

Therapist: I know that you ultimately want to feel better and be happy, and right now the loss of your leg seems to be a major obstacle to that. I'm wondering if there's anything we can think of together that might help you get there. What would tell you your life was getting better? (Underscores the collaborative approach while helping Jill start to think about operationalizing global outcome goals.)

Jill: I think if I started spending more time with my husband and kids instead of brooding in my room all the time, I probably wouldn't feel so horrible. I also could start returning my friends’ phone calls and maybe even make a plan to get together with them so I don't feel so isolated and alone. (Starts to sound a bit more energized.)

Therapist: Those sound like great starts, Jill! What else might you do if there were no limits on what was possible?

Jill: Well, I might even start showing up at my daughter’s soccer games. I can't even bear talking with her about soccer because I used to coach her team. I guess I could speak with the new coach about helping out sometimes.

Therapist: (Smiles admiringly.) I think that’s really brave of you, Jill. Maybe you could even ask your physical therapist about resuming some of your favorite activities, like going on walks with your husband. How would you feel if you could do all those things again?

Jill: I'm pretty sure I’d be a lot happier…and so would my family.

In addition to illustrating how global outcome goals inform treatment decisions, this vignette also shows how discussion and operationalization of such goals can provide hope and enhance patients’ motivation to engage in therapy.
Mechanism Change Goals

Based on an understanding of how identified TDMs manifest for the patient, therapist and patient work together to decide how those mechanisms must change in order to achieve current global outcome goals and, more importantly, sustain lasting positive changes accrued in therapy. If interventions do not yield the desired improvements, the therapist can start exploring other mechanism hypotheses that might explain the patient’s problems and lack of progress and adjust treatment accordingly.

Establishing the GPS Coordinates

Markers for achieving mechanism change goals help therapists assess the accuracy of TDM hypotheses, track patient progress, and make appropriate adjustments to clinical interventions. Depending on the mechanisms being targeted, these might include a reduction in frequency (e.g., of worry or rumination) or a reversal of problematic responses (e.g., emotional, cognitive, or behavioral avoidance). Qualitative changes such as a more positive self-schema, more accurate information processing, or a shift in the focus of attention also might be desired outcomes of treatment. Therapists may see that some vulnerability mechanisms, such as deficits in emotion regulation and sleep regulation, are shifting by noting markedly improved sleep hygiene, whereas trait-like mechanisms such as intolerance of uncertainty and anxiety sensitivity might be measured by reduced distress and increased tolerance for those feeling states.

We now return to Tom, who wants to feel less anxious and depressed, make decisions unencumbered by excessive worrying, and engage in more activities with his family. Based on the mechanism hypotheses that were generated during assessment, mechanism change goals might include challenging his beliefs about worry and decreasing worry, changing his responses to fears of being judged negatively, modifying his negative schemas, and reducing avoidance behaviors. Changes in global outcome goals, such as improving his mood, making more timely decisions, and increasing time spent with his family and coworkers, can also be markers of mechanism change. Other indicators of progress may include reduced scores on symptom and mechanism measures.

Linda’s current problems stem from her efforts to ignore the fact that her mood was destabilizing, which both exacerbated her symptoms and prevented her from taking steps to halt the decline in functioning. When she
and her therapist did a chain analysis of these problems, they were able to identify mechanisms to target in treatment that would help her achieve global outcome goals of improving and stabilizing her mood, reconnecting with friends, and resuming her academic and clinic responsibilities. Mechanism change goals included challenging faulty beliefs about herself and others, reducing self-critical thoughts, and reducing emotional, cognitive, and behavioral avoidance. Another goal was improving emotion regulation and sleep regulation so as to reduce underlying vulnerabilities contributing to mood destabilization.

Thus, by starting with measurable markers of desired outcome goals, therapists can operationalize success and map a course to get there. Identifying how mechanisms must shift in order to achieve both current outcome goals and long-lasting positive change is the engine that drives treatment and guides selection of interventions. Before proceeding, however, therapist and patient must agree on short- and long-term treatment targets. How patients feel about these goals, and their readiness to engage in the interventions that target TDMs, also must be addressed in therapy.

Assessing Readiness for Change

Patients’ ability to accept their problems and engage in therapy is a key consideration throughout treatment planning and is critical for successful outcomes. A continuum originally outlined by Prochaska and DiClemente (1984) addresses decision-making ability in a wide range of psychological and other health problems, and evaluating where patients lie on this continuum can help therapists assess their readiness to change. This aids therapists in setting realistic treatment goals with patients and modifying them as necessary to enhance motivation (Miller & Rollnick, 2012). The continuum is not linear, and people tend to move back and forth through different stages of change as treatment progresses and new challenges arise. Patients often straddle different stages, and it is not uncommon for them to feel ready to tackle global outcome goals (e.g., reduce anxiety and depression) while struggling with mechanism change goals (e.g., relinquishing worry or increasing behavioral activation). We will briefly review the stages—precontemplation, contemplation, preparation, action, and maintenance—to illustrate how strategies for enhancing patient motivation might be implemented at different points on the road map.
Stages of Change

Precontemplation is the stage in which individuals are not yet ready to change. While this is not typically the case for adults seeking therapy in private practice, it is helpful to acknowledge the general difficulty in making behavioral changes. Discussing mechanisms may de-emphasize pathology and spark interest in developing more effective coping strategies.

Contemplation reflects ambivalence in considering whether to change. Individuals in this stage typically experience some degree of acceptance of their problems and can think about the possibility of changing, but have no immediate plans to do so. This might present as someone who seeks therapy for depression (outcome goal) but has difficulty engaging in interventions to target emotional and behavioral avoidance (mechanism change goals). However ineffective certain coping strategies may be, patients have often relied on them for many years, and we have found that acknowledging the familiarity and comfort of TDMs can validate patients’ difficulty relinquishing them, enhance the therapeutic alliance, and increase motivation to change. Helping patients envision how their lives might improve if they found different ways to respond to their problems is a useful technique for advancing to the next stage.

In the preparation stage, individuals are able to take initial steps toward changing their behavior. While patients often are in this stage at intake, it always is prudent to assess where they are at any given point in time and to balance desired outcomes with the challenge of changing long-held coping strategies. Wanting to change does not imply that a person is willing and able to change or agrees to the formulation and recommendations put forth by the therapist. Helping patients understand the role of TDMs in driving their problems, and how mechanisms may be directly targeted in treatment, often increases patients’ motivation to tackle them.

In the action stage, individuals are fully engaged in change strategies and are actively moving toward modifying TDMs to reduce vulnerabilities and improve coping responses. It is not uncommon, however, for patients to be in multiple stages, especially those who are tackling multiple problems or mechanism change goals. Thus, a therapist might help an individual see that life is becoming more manageable as he learns skills to tolerate uncertainty while also validating the individual’s reluctance to reduce avoidance of anxiety-provoking situations and motivating him to challenge the negative beliefs fueling that behavior.

The final stage, maintenance, typically follows a sustained period of active behavioral change. In this stage, therapists work to help patients maintain
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progress and continue to access skills learned in therapy. This includes strategies such as identifying early warning signs of declining functioning and brainstorming potential solutions to reduce relapse risks. Since people often seek therapy for multiple problems, therapists might be working on maintenance for one problem while preparing to address another.

It is important to help patients understand how their readiness to change impacts treatment, especially if they are in earlier stages of change or if they relapse. Validating the many challenges of therapy while taking a curious, compassionate, and nonjudgmental stance can enhance motivation, facilitate understanding that success is not measured in linear increments, and help patients move forward.

Prioritizing Treatment Goals

Since psychiatric comorbidity is common, it often is difficult for clinicians to decide which problems to tackle first. Some treatment protocols (e.g., Linehan, 1993a) and case formulation models (e.g., Kuyken et al., 2009; Persons, 2008) suggest several factors that have guided our recommendations. In the spirit of collaboration, we always discuss these with patients and, wherever possible, follow their preferences on which problems to address and in what order.

Life-Threatening Crises

Regardless of where patients are in treatment, potentially life-threatening crises demand full and immediate attention. This might include a patient contemplating suicide (especially in the context of intent and means) or someone who is in the midst of a psychotic episode and gravely disabled. Addressing patient safety (and the safety of others, if applicable) always is the highest priority, trumping any other treatment goal. An urgent psychiatric evaluation or, in extreme cases, immediate hospitalization might be warranted. The therapist also must attend to situations wherein patients are at risk from others (e.g., facilitating safe relocation if the patient is living with an abusive spouse). In all of these cases, meeting other therapy goals may begin or resume once safety is ensured, though periodic assessment of potential harm must be ongoing until the risk has been substantially reduced.
Other Situations Requiring Immediate Attention

Behaviors that interfere with therapy and potentially jeopardize the clinician’s ability to continue working with a patient also trump other treatment goals (Linehan, 1993a). While this parameter varies with therapist tolerance levels, common examples include missing appointments or not paying for sessions, being dishonest with the therapist (e.g., concealing self-harm), not completing homework, becoming mute or verbally abusive in session, or calling for skills coaching after engaging in self-harm (e.g., cutting, drinking) instead of when urges to engage in those behaviors first arise. Regardless of tolerance level, it is important for therapists to know their personal limits and be clear with patients about those limits at the beginning of treatment, before those limits are exceeded. This underscores the collaborative nature of treatment and allows patients to make informed choices about their behaviors.

Other high-priority treatment targets are problems that severely interfere with quality of life (Linehan, 1993a), such as financial insolvency, homelessness, and substance abuse. For example, if a depressed patient is unable to work and therapy is being funded by family members, helping her find a job and become financially independent will be a high priority as mood and functioning improve. Similarly, if someone is facing foreclosure and eviction or has few financial resources, helping him find stable housing will take priority over other clinical interventions. In addition to any practical considerations, the therapist must recognize the situation’s potential to exacerbate mental health problems such as anxiety and depression, making it important to resolve them quickly. Of course, helping patients figure out how these crises developed and engaging in problem solving to avoid future occurrences also is an important focus of treatment.

Diminished Functioning and Exacerbation of Other Problems

Problems that interfere most with patient functioning are the next priority (Persons, 2008). For example, if a person cannot leave the house to attend work or school or complete basic tasks because of the severity of his mental health problems, this becomes an immediate treatment target. In addition to interfering with overall quality of life by prohibiting the patient from completing his
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education or being able to support himself financially, this type of problem could impede his ability to attend sessions. Thus, it becomes important to act quickly to prevent exacerbation of symptoms that could diminish functioning even further, give rise to new problems (e.g., the patient could lose his job, not be able to pay rent, and lose stable housing), and potentially result in a life-threatening crisis, such as the patient becoming depressed and suicidal.

**Potential Destabilization and Interference with Treating Other Problems**

Treatments that are highly stressful, such as exposure-based therapies, are potentially destabilizing and may need to be delayed until patients have acquired sufficient skills to tolerate and benefit from the therapy (Kimble et al., 1998). For example, if a patient with PTSD also demonstrates parasuicidal behaviors, difficulty trusting others, and fear of abandonment, it would be highly destabilizing to plunge her into exposure therapy without first treating the parasuicidal behaviors, teaching her skills to manage distress and regulate emotions, and securing a solid treatment alliance (Harned et al., 2012). Similarly, some problems, if not solved first, impede treatment of other problems. For example, if a patient is experiencing severe depressive symptoms, treating his OCD would not be indicated until his mood is stabilized and he is able to actively engage in learning to tolerate distress as part of exposure-based interventions. Therapists must assess where patients are in terms of both level of functioning and motivation to change, and collaboratively develop goals that will reduce distress, improve functioning, and enhance responsiveness to interventions.

**Facilitating Treatment of Other Problems**

Progress on certain problems can help solve other types of problems or at least have mitigating effects on them (Haynes, 1992). For example, the hopelessness and behavioral withdrawal typical of severe depression likely would impede a patient’s ability to participate in treatment, which might prompt a discussion about the benefits of medication prior to engaging in CBT for depression. Similarly, treating insomnia could facilitate a patient’s response to cognitive restructuring by improving attention and concentration. Agoraphobia could also fall into this category since avoidance of certain places and
activities might interfere with the ability to work on other treatment goals, such as improving mood by increasing social contacts and social support. Targeting underlying difficulties with emotion regulation or arousal regulation through mindfulness practices and exercises to calm physiological states can influence multiple mechanisms and problems and facilitate improvement across several domains.

**Easiest to Treat**

It often is beneficial to begin treatment by addressing problems that are relatively easy to treat (Persons, 2008) or by teaching basic skills that reduce distress and improve functioning. For example, learning distress tolerance skills (Linehan, 1993b) can provide immediate relief and help patients begin to feel more in control of their emotions and better equipped to handle stress both in and out of session. This also allows them to experience success early in treatment, which can enhance coping, build hope, and increase motivation to engage in more challenging aspects of therapy.

**Patient Preferences and Values**

Assuming there are no crises or other situations demanding immediate attention, beginning treatment with the problem the patient most wants to solve can underscore the collaborative nature of therapy, enhance the therapeutic alliance, and increase patient motivation (Kuyken et al., 2009). For example, a patient may want to prioritize improving how he interacts with his son, both because their conflict is affecting him on a daily basis and he wants to resolve it quickly, and because being a good father is an important value for him. A discussion about committing to values-based action (S. C. Hayes et al., 2012)—taking steps toward acting on personal values—can help patients prioritize treatment goals, especially if motivation is waxing and waning. For example, if a patient with bipolar disorder stops taking her medication and begins to decline, she may be more motivated to prioritize goals that will help her be able to care for her family (which she highly values), such as resume medications and take actions to return to work and maintain her income.
CHAPTER 8

Selecting Interventions

After identifying TDMs and establishing mechanism change goals to help patients achieve their desired outcomes, therapists are ready to select interventions and implement the treatment plan. While many interventions pair logically with specific TDMs (e.g., behavioral activation for behavioral withdrawal, cognitive restructuring for cognitive misappraisals), there is not a simple one-to-one relationship between TDMs and clinical interventions. In fact, numerous and varied interventions may be effective in targeting any given mechanism depending on the patient’s presenting problems, how those mechanisms manifest, what the global outcome goals are, and where the patient is on the continuum of change. For example, a learned response such as withdrawing from intimate relationships because of an abusive upbringing may be targeted with behavioral experiments, cognitive restructuring, exposure-based interventions, social skills training, and so on. Similarly, while exposure may be indicated to reduce emotional avoidance in PTSD, the patient may be in an early stage of readiness to change that precludes exposure-based interventions, so the therapist first will have to focus on motivational interviewing and distress tolerance techniques. The therapist also could implement mindfulness exercises to accomplish the same goal: helping the patient learn to notice, identify, and experience different emotions, thereby reducing avoidance of them. As in other case formulation approaches, another advantage is that if one intervention is not effective, the
The Transdiagnostic Road Map to Case Formulation and Treatment Planning

A clinician can select from many other elements within ESTs and other methods currently available in order to achieve identified goals. The elegance of the transdiagnostic road map lies in its specificity to each patient based on the TDM formulation.

To help clinicians choose among the ever-increasing number of treatment options, we offer a unique categorization system that identifies the functional properties of interventions and allows therapists to consider their utility in meeting individualized TDM change goals and achieving patients’ desired outcomes. We divide the interventions into four categories: those that increase patients’ understanding of their problems and motivation to engage in treatment; those that facilitate individuals’ ability to step back from their problems; core strategies for change derived from evidence-based treatment protocols; and approaches that help patients develop and improve a range of skills to resolve specific problems.

Functional Categorization of Interventions

Interventions that enhance understanding and motivation

- Psychoeducation
- Conversations about ambivalence and motivation to change
- Cost-benefit analysis
- Identifying values

Interventions that facilitate stepping back from the problem

- Problem deconstruction and analysis
- Self-monitoring
- Mindfulness
- Detached mindfulness
- Acceptance and validation
- Cognitive defusion
Core strategies for change

- Behavioral activation
- Behavioral contingencies
- Cognitive restructuring
- Schema change
- Behavioral experiments
- Attention training techniques
- Situational attention retraining
- Postponement strategies
- Exposure (behavioral, cognitive, emotional, and interoceptive)
- Compassionate mind training and imagery rescripting
- Distress tolerance skills
- Emotion regulation skills
- Interpersonal effectiveness skills

Adjunctive skills training for specific problems

- Breathing retraining
- Progressive muscle relaxation
- Applied relaxation
- Guided imagery
- Anger management
- Problem solving
- Organization and planning
- Time management
- Sleep management
- Strategies for eating problems
- Strategies for body-focused repetitive behaviors
Most of the interventions listed can target multiple TDMs. Therapists may choose among them based on which mechanisms are being targeted, how those mechanisms manifest in the individual patient, the patient’s strengths and limitations, and how mechanisms must change to achieve global outcome goals. To help guide the selection process, we have developed a structured Progress Note (available in the appendix and in downloadable format at http://www.newharbinger.com/28951), which allows therapists to track interventions for each session and patient responses to them relative to treatment goals.

**Interventions That Enhance Understanding and Motivation**

The interventions discussed in this section may be used throughout treatment to enhance individuals’ understanding of their problems and motivation to change ineffective behaviors and engage in clinical interventions.

**Psychoeducation**

Education about the nature and treatment of patients’ problems has been a long-standing cornerstone in evidence-based therapies (e.g., A. T. Beck et al., 1979; Foa et al., 2007; Linehan, 1993a), including recent transdiagnostic protocols (Barlow et al., 2011; Norton, 2012) and paradigms (Leahy et al., 2011). Psychoeducation allows patients to assume an active and collaborative role in therapy by helping them understand their presenting symptoms, the context in which problems develop, and the rationale underlying treatment. It is hard to imagine anyone engaging in a process that requires effort and commitment to change without understanding what is expected and why. If patients ultimately are to become self-sufficient with the skills we teach them—practicing between sessions and implementing strategies well beyond termination—they must fully comprehend the nature, consequences, and mechanisms of action of their problems.

Psychoeducation also teaches patients that the problems plaguing them are often learned or have neurophysiological underpinnings (i.e., vulnerability mechanisms). In this way, we can reduce negative self-perceptions and feelings of shame while also introducing TDMs and educating patients about how mechanisms can be targeted and treated. In addition to providing an answer
to “Why me?” we can help patients see how many response mechanisms are understandable ways of coping with vulnerabilities, yet contribute to a vicious cycle that exacerbates those vulnerabilities and intensifies suffering. In so doing, we teach patients the importance of learning how to think differently about their vulnerabilities and develop alternative ways of responding to them.

**Conversations About Ambivalence and Motivation to Change**

Most experienced clinicians will attest to the importance of evaluating patients’ commitment to change before moving forward with treatment. It is easy for novice and senior clinicians alike to develop a formulation and treatment plan and excitedly begin therapy before ensuring that the patient is equally motivated to put the plan into action. We recommend taking sufficient time to discuss any hesitation, concerns, or ambivalence that may arise, not only about motivation to change but also about what will be involved when making those changes.

It is beyond the scope of this book to discuss the many processes involved in using a motivational interviewing style of communication with patients to help enhance their motivation and commitment to change, as described by Miller and Rollnick (2012). We encourage you to familiarize yourself with this important work, which can help you engage in collaborative conversations exploring patients’ motivations for and commitment to active change. Taking a motivational interviewing stance involves developing a working alliance, clarifying direction of change, identifying and enhancing the patient’s own motivation for change, and developing a plan for change. The therapist does so by creating an atmosphere of partnership, acceptance, and compassion, while simultaneously evoking patients’ wisdom, strengths, and resources to bring forth their motivation to change (Miller & Rollnick, 2012).

Like many of the interventions discussed in this chapter, guided discovery and Socratic questioning are core strategies used throughout CBT and other evidence-based therapies. We mention them here because they play an integral role in enhancing motivation and commitment to change. Overholser (2011) nicely summarizes these core CBT processes and their role in facilitating autonomy and independent decision making, versus therapists telling or directing patients to take actions (e.g., engaging in certain interventions). Clinicians can benefit from honing their skills in using guided discovery and Socratic questioning throughout treatment to help patients clarify problems and
objectives, identify TDM change and global outcome goals, and engage in interventions to facilitate forward progress.

**Cost-Benefit Analysis**

Looking at costs and benefits is a benchmark strategy to help resolve ambivalence about decisions, behaviors, or beliefs. Linehan (1993b) has patients evaluate the pros and cons of continuing to engage in self-harm and other target behaviors as a means of reducing distress and facilitating more effective coping. Most of us think through advantages and disadvantages of options before committing to important decisions, and this strategy is used in CBT when patients are deciding to embark upon treatment, make behavioral changes, or embrace alternative cognitive constructs, such as deciding that the disadvantages of perfectionism far outweigh any advantage (Burns, 1999). Writing down the costs and benefits of maintaining current beliefs and behaviors or taking steps toward change creates a concrete list of discussion points to enhance patients’ motivation for change. This technique can help individuals decide whether to begin therapy and may be used at any point during treatment if patients are hesitant to move forward. One author (JD) routinely uses a cost-benefit analysis worksheet with patients before beginning exposure-based interventions, even when patients report that they are in agreement with the treatment plan. Fleshing out hesitations about facing problems, changing behaviors, or learning to tolerate discomfort while identifying the many advantages to trying interventions can help patients get off to a good start and fully engage in therapy, a process that often is uncomfortable, anxiety provoking, or otherwise challenging.

**Identifying Values**

“Valued living,” a key change mechanism in ACT, defines values in behavioral terms that can be measured with the Valued Living Questionnaire (VLQ; Wilson et al., 2010). Identifying values helps individuals clarify how they want to live across multiple life domains (e.g., relationships, work) and how they want to behave on an ongoing basis (S. C. Hayes et al., 2012). Values exercises can facilitate engagement in exposure and other challenging interventions (Meuret, Twohig, et al., 2012) and can help patients become more willing to relinquish ineffective coping behaviors and develop new skills (Linehan, 1993a). We routinely use values exercises to help patients address problems and
Selecting Interventions

decisions in their daily lives, such as whether to forgo working overtime to attend a child’s birthday party, or whether to tolerate distress and ask a friend to lunch because they value a life that is connected to others and not restricted by anxiety. Discussing how TDMs impede movement toward identified values, and how pursuing those values may reduce suffering and help individuals achieve a more desirable and fulfilling life, often can be quite effective in helping patients relinquish long-held TDMs.

Interventions That Facilitate Stepping Back from the Problem

Patients often feel consumed by their difficulties, which can add to emotional distress and misconceptions that decrease their ability to engage in treatment. The interventions discussed in this section help patients step back from their problems to understand them differently and participate more effectively in therapy. Many of these also act as springboards for change.

Problem Deconstruction and Analysis

A number of techniques may be used to deconstruct problems and facilitate patients’ ability to step back from them, thereby acting as catalysts for other interventions. For example, thought records help patients identify negative automatic thoughts underlying functional difficulties, a necessary step toward correcting those thoughts and developing healthier cognitive and behavioral alternatives (e.g., J. S. Beck, 2011; Persons, 2008). Similarly, McCullough’s situational analysis (2000) can help chronically depressed patients correct negative (depressogenic) beliefs and identify alternative strategies for achieving desired outcomes and building self-esteem. Our Problem Deconstruction Log allows patients to identify the affective, behavioral, cognitive, and physiological components of problems to better understand the mechanisms underlying them.

Functional analysis stems from B. F. Skinner’s contextual behaviorism (1953) and is a fundamental strategy used throughout treatment for deconstructing problematic behaviors to assess their function in obtaining some desired outcome for the patient. After the therapist provides psychoeducation about functional analysis, therapist and patient discuss and agree upon the
specific behaviors that will be analyzed by looking at their antecedents and consequences. It also is used to explore the function of specific thoughts, emotions, and behaviors that arise throughout therapy and may be causing interruptions in treatment or in the patient’s life. Linehan (1993a) developed behavioral chain analysis to help patients identify opportunities to use skills as alternatives to ineffective coping behaviors. Functional analytical psychotherapy (Kohlenberg & Tsai, 1991) utilizes functional analysis to understand patients’ interactions with the therapist in order to generate hypotheses about similar behaviors occurring outside therapy that may explain interpersonal problems. While functional analysis targets response mechanisms such as behavioral avoidance and emotion-driven behaviors, it also is effective in identifying a functional context for vulnerability mechanisms such as perfectionism and intolerance of uncertainty, and in highlighting how patients’ private experiences (e.g., emotions and thoughts) can maintain problems.

**Self-Monitoring**

Self-monitoring involves deliberate attention to an aspect of one’s behavior, and increases patients’ awareness of thoughts, feelings, behaviors, and other key aspects of presenting problems. Self-monitoring provides data to increase patients’ and therapists’ understanding of problems and guide treatment decisions (Persons, 2008). It “is considered essential to the personal scientist model of cognitive-behavioral therapy” (Craske & Barlow, 2008, p. 24) in that it facilitates collaborative empiricism and enhances patients’ sense of agency (Cohen et al., 2013). Both disorder-specific protocols (e.g., Foa et al., 2007) and universal protocols (e.g., Barlow et al., 2011) incorporate self-monitoring interventions early in treatment to track symptoms, effectiveness of interventions, and overall progress. Having patients monitor treatment targets (e.g., mood, worry thoughts, self-criticism, social withdrawal) has widespread value, ranging from heightening awareness of ineffective coping to cueing problem solving and enhancing self-regulation (e.g., Frank, 2005; Linehan, 1993a).

When patients track identified components of problems, they assume a third-person perspective that helps them step back from their problems while also increasing their awareness of the treatment targets they are trying to change. Standardized symptom measures and protocol-based monitoring forms that identify and track specific components of problems are available, and we also encourage therapists to be creative in tailoring self-monitoring to patient needs. For example, the lead author (RIF) developed a self-monitoring tool that allows for a subjective definition of “distress” based on the patient’s
presenting problems. Thus, one person might track distress by monitoring his experience of mood swings and trauma flashbacks, whereas another might track the aggregate effect of different elements of panic attacks and associated alcohol consumption.

Mindfulness

Mindfulness involves learning how to control the focus of attention, which can increase individuals’ awareness of and ability to step back from their problems, engage in their present reality, and enhance coping. Mindfulness can interrupt emotion-driven behaviors and cognitive misappraisals (Lynch et al., 2006) and mitigate the detrimental effects of unavoidable distressing experiences on mental health (Bergomi et al., 2013). Mindfulness is central to many therapies, including mindfulness-based cognitive therapy (Segal et al., 2002), mindfulness-based stress reduction (Kabat-Zinn, 1990), DBT (Linehan, 1993a), and ACT (S. C. Hayes et al., 2012). Mindfulness-based interventions have demonstrated efficacy in treating both psychological and physical problems (Baer, 2003), implicating mindfulness in self-regulation and self-management; emotional, cognitive, and behavioral flexibility; values clarification; and the ability to tolerate and benefit from exposure (Shapiro et al., 2006).

Kabat-Zinn (1994) defined mindfulness as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (p. 4). Linehan (1993b) deconstructed the practice of mindfulness into “what” skills (observe, describe, participate) and “how” skills (nonjudgmental, one thing in the moment, effective) to help patients find the dialectical synthesis of emotional experiencing and logical reasoning: “wise mind.” Different aspects of mindfulness (observing, describing, acting with awareness, not judging, not reacting) can be assessed via the Five Facet Mindfulness Questionnaire (Baer et al., 2006). Mindfulness exercises may include grounding in current reality to target trauma-related mechanisms, noticing and letting go of self-critical thoughts to reduce negative schemas, or increasing emotional awareness to counter avoidance, among many others.

We encourage patients to practice and incorporate mindfulness skills as they move through daily living: simply paying attention while driving or walking down the street; fully immersing themselves in folding laundry; or observing and describing tastes, textures, and other sensations while eating an apple. Although conceptually simplistic, mindfulness is typically difficult to master—for therapists and patients alike. However, it is a core component of numerous interventions and, with practice, it can facilitate lasting behavioral change.
Detached Mindfulness

Detached mindfulness techniques (Wells & Matthews, 1994) help individuals develop meta-awareness of thoughts and beliefs so they can disengage from them, allowing patients to either appraise those thoughts and beliefs differently or respond more effectively. These interventions help patients learn to take a metacognitive perspective that interrupts repetitive negative thinking, such as worry and rumination. Further, patients learn to take the observer perspective, which helps them develop a new way to relate to their thoughts and beliefs—one that increases flexibility regarding thinking styles and fosters a new view of the significance and importance of cognitions. Detached mindfulness techniques, described in detail by Wells (2009), include exercises such as the use of imagery and metaphor to facilitate changes in metacognition and learning.

Acceptance and Validation

Acceptance reflects the ability to simply be in the present moment, with whatever is there, without resistance or judgment (Kabat-Zinn, 1994). Before individuals can even think about changing behaviors, they must first accept the problematic nature of those behaviors (Prochaska & DiClemente, 1984). Validation—recognizing patients’ experiences, corroborating their authenticity, and framing their dysfunctional nature in the context of past learning and current stressors—is a core strategy for increasing acceptance in DBT (Linehan, 1993a). Validation can stabilize patients’ sense of self, reduce emotional arousal, enhance learning, and increase motivation to change (Lynch et al., 2006). Acceptance is viewed as a necessary precursor of behavioral change and problem solving (Linehan, 1993a). Validating patients’ experience of their problems (e.g., “I can’t imagine not being anxious, given your learning history” or “Anyone would be anxious in that situation”) can convey empathy and understanding, reduce self-criticism, and increase motivation and participation in therapy (Linehan, 1993a). This is particularly salient for chronic conditions such as bipolar illness or catastrophic injury, where treatment focuses on adaptation, improved functioning, and enhanced quality of life.

Cognitive Defusion

Cognitive defusion is an intervention within ACT (S. C. Hayes et al., 2012) that targets cognitive avoidance (including worry), cognitive misappraisals (e.g.,
negative predictions, cognitive distortions), and negative attributions (e.g., self-criticism), among other TDMs. Defusion helps patients step back from their thoughts rather than being consumed by or acting on them. It helps patients distance from thoughts via labeling (e.g., “There’s another one of those self-critical thoughts”) or observing (e.g., “I’m having the thought that I don’t want to go to work because I think I can’t cope with facing my boss”). In DBT patients learn how to disengage from distressing thoughts and feelings in the service of regulating emotions and managing distress (Linehan, 1993b). Defusion can be a useful stepping-stone to other interventions, such as exposure and cognitive restructuring (e.g., “It’s just your mind having flashbacks of the trauma. When we do exposure, those will gradually decrease, and you’ll be able to take the memories off the shelf at will rather than always having them come crashing down on you.”).

It is important to provide psychoeducation about the power of thoughts, the ineffectiveness of trying to suppress them, and the benefit of learning ways to disengage from them. Helping patients assess whether problematic thoughts facilitate or impede achievement of goals often can highlight the thoughts’ disruptive nature. Cognitive defusion may be used to target rigid rules, judgments, past- and future-oriented thoughts, and (erroneous) core beliefs that impede values-based action (S. C. Hayes et al., 2012). Many exercises and metaphors are available for noticing thoughts, examining their function, and disengaging from them in order to reduce subjective distress and move toward valued living. For example, imagining problematic thoughts as leaves floating down in a gentle breeze without having them interrupt a pleasant stroll could help a patient disengage from worry thoughts that impede her ability to chaperone her son’s class trip. Other defusion exercises have patients say or sing problematic thoughts out loud, focusing on the sound of a thought (versus its meaning) as a way to reduce its significance and dysfunctional impact. Another useful strategy involves writing a thought on a flash card and having patients compare looking at the card at arm’s length versus directly in front of their eyes to notice the difference between having a thought (being able to read it at arm’s length) and being consumed by the thought (being unable to focus their eyes and decipher the letters).

Core Strategies for Change

Numerous interventions have been developed that target both vulnerability and response mechanisms to facilitate change in multiple dimensions of patients’ lives. Many of these come from ESTs for specific disorders that subsequently have been shown to be effective across a range of problems.
Behavioral Activation

Behavioral activation is based on theories that depression results from a lack of positive reinforcement and environmental rewards, which occurs when individuals avoid certain situations (Ferster, 1973; Lewinsohn, 1974). It targets behavioral avoidance by scheduling activities that increase motor activity, a sense of achievement and mastery, and pleasurable experiences to elicit positive reinforcement and reduce negative affect (Martell et al., 2010). Behavioral activation also provides information to refute negative self-schemas (A. T. Beck et al., 1979).

Activity scheduling (A. T. Beck et al., 1979; J. S. Beck, 2011) begins with psychoeducation about the relation between behavioral inactivity and depression, followed by collaborative identification of activities that will increase overall motor output and begin improving mood. For example, we might help a patient develop a plan for doing a load of laundry so she can have clean clothes to wear and begin to feel better about herself. Therapist and patient work together to schedule and evaluate additional activities that can build a sense of achievement and mastery, increasing self-efficacy and helping the patient continue or resume functioning (e.g., cleaning the house, purchasing groceries, returning to work). Activities that increase a sense of pleasure (e.g., going to a movie, meeting a friend for lunch) also are scheduled and balanced with mastery activities. Helping patients identify avoidance behaviors and understand their role in fueling depressed mood, along with the importance of sustaining activity levels and positive reinforcement, is an important factor in relapse prevention (Martell et al., 2010). We recommend including life tasks that could create more problems if not addressed (e.g., scheduling a dental appointment, calling the credit bureau), which can be initiated in session if patients are unable to complete them alone. Adding values-based activities, such as volunteering for a charity or exercising to improve health, can increase the benefits of behavioral activation (S. C. Hayes et al., 2012).

Behavioral Contingencies

Behavioral contingencies, which are based on the premise that learning is heavily influenced by the consequences of our behavior, are integral to CBT and DBT. Ideally, the consequence should directly follow the behavior to effectively increase or decrease the probability of the behavior reoccurring. For example, clinicians often neglect to follow up on homework assignments, and then they wonder why patients stop completing them! Contingency
management refers to attempts by the therapist (and patient) to support effective behaviors and extinguish ineffective behaviors both in and out of session, and includes reinforcement, extinction, shaping, and punishment. For example, DBT therapists often limit a session to a painstakingly detailed chain analysis of cutting following an incident of such self-harm, preventing discussion of other topics (Linehan, 1993a). However, ineffective behavior may be inadvertently rewarded, such as when therapists increase phone contact during crises or become more attentive to patients who stop talking in session. If this is not addressed, the therapist may feel overextended, which can compromise the therapeutic alliance and potentially jeopardize treatment. Limiting the therapist’s availability to brief phone coaching and crisis management, shaping non-crisis contact with the therapist, and quietly waiting for patients to reengage in dialogue are examples of contingency management strategies to reduce ineffective responses, enhance coping, and facilitate interpersonal effectiveness (Linehan, 1993a).

Behavioral contingencies are highly effective in targeting behavioral and emotional avoidance. Contingency procedures must be explained to patients prior to using them and are most effective when implemented in a transparent, nonjudgmental, and collaborative manner. We encourage you to be creative in developing contingencies with patients, such as rewarding themselves with an ice cream or small gift after completing a homework exercise, or planning a fun activity following completion of a feared task to decrease procrastination (e.g., going to a movie after asking the boss for a raise).

Cognitive Restructuring

Cognitive therapy is based on the theory that perceptions of situations, rather than situations themselves, can influence how people feel (A. T. Beck, 1964). Specific situations can trigger automatic thoughts that often are distorted and activated by underlying schemas, and these cognitive appraisals give rise to negative emotional states and problematic behaviors. Beck’s cognitive therapy of depression (A. T. Beck et al., 1979) utilizes a Daily Record of Dysfunctional Thoughts to log automatic thoughts that become the focus of cognitive techniques aimed at identifying and responding to cognitive distortions. Variations of this worksheet currently are used in clinical practice to record automatic thoughts in the service of developing effective cognitive and behavioral responses that target mood problems and cognitive misappraisals. Strategies to correct cognitive misappraisals include identifying distortions in thinking, exploring evidence supporting and not supporting cognitions,
considering alternative explanations, and examining whether cognitions are helpful in improving mood, interpersonal relations, and functioning (J. S. Beck, 2011; Burns, 1999; Persons et al., 2001).

Cognitive restructuring helps patients identify and evaluate their thinking so they can develop more balanced, effective, and adaptive responses. It aims to increase awareness of, test, and change maladaptive beliefs. These interventions are a mainstay within CBT and are used to correct misappraisals that contribute to specific symptoms across a range of problems (e.g., fears of bodily sensations or judgment by others, overestimation of threat appraisals and likelihood of negative outcomes, distortions related to traumatic events or body image). Cognitive restructuring also challenges underlying assumptions, such as If I don’t do everything perfectly, no one will like me and I should excel at everything I try to do. Maladaptive beliefs are viewed as vulnerabilities that, when activated, can contribute to how individuals interpret their experiences. For example, if a patient experiences heightened anxiety related to the activation of beliefs about threat and inability to tolerate uncertainty and responds by using escape and avoidance behaviors, cognitive restructuring can engage her in discussions about her overestimations of threat and underestimations of her ability to tolerate distress when these constructs are activated.

Metacognitive therapy also incorporates cognitive restructuring, though its purpose is not to change the content of thoughts or schemas, but rather to modify patients’ beliefs about their thoughts and emotions (i.e., metacognition; Wells, 2009). Metacognitive strategies include core CBT techniques such as Socratic questioning, examining evidence, and identifying cognitive distortions, which seek to weaken metacognitions (e.g., positive and negative beliefs about worry and rumination and the function of those behaviors; positive beliefs about threat monitoring; beliefs that intrusive thoughts are important and need to be controlled). Thus, cognitive restructuring may be used to address multiple levels of thoughts, including developing more balanced and effective responses to automatic thoughts, challenging underlying assumptions, changing or modifying schemas, and changing or modifying metacognitive beliefs.

**Schema Change**

Cognitive models view underlying constructs such as schemas as being central to understanding problematic thinking, behaviors, and emotions. Schema change methods are used to restructure maladaptive core beliefs about self, others, the world, and the future (e.g., I’m unlovable, Others are critical, The world is dangerous, and The future is bleak) and include interventions such as
historical tests of schemas (Young et al., 2003), continuum methods that shed light on the dichotomous nature of schemas (Padesky, 1994), core beliefs worksheets to examine evidence supporting and not supporting beliefs (J. S. Beck, 2011), and positive data logs to record evidence in support of positive or balanced schemas (Padesky, 1994). Expressive writing techniques, like having a patient write narratives of past invalidating experiences as she engages in treatment of PTSD and examining how those accounts vary over the course of therapy, may also be helpful. Narrative therapy has been shown to influence self-identity (Singer, 2004) and improve psychological and physical health (Pennebaker, 2010).

Young and colleagues (2003) developed schema therapy to target chronic psychological difficulties associated with long-lasting interpersonal problems (e.g., personality disorders). Their model includes identification of the most common schemas, which they refer to as “life traps.” These schemas are developed during childhood and activated in different situations. Once agreement is reached about which schema to target, the patient monitors its activation in various situations and relationships in order to develop more effective responses to triggers.

**Behavioral Experiments**

Behavioral experiments complement cognitive restructuring interventions as a strategy to assess the validity of patients’ beliefs. Beliefs are tested by gathering evidence to discredit maladaptive beliefs and support new, more adaptive ones through experiential learning and practice (Bennett-Levy et al., 2004). Behavioral experiments provide observational data in real time to target cognitions at the levels of automatic thoughts, assumptions, core beliefs, schemas, and metacognitions.

Behavioral experiments may be planned to either test hypotheses (e.g., *If I get lost and ask for directions, no one will help me*) or make new discoveries (e.g., *I actually am really resilient and resourceful!*). They may be implemented in real-life situations or via role-plays and typically include trying new behaviors, observing behaviors, or surveying others to gather information. Behavioral experiments require careful planning and specificity about the cognitions and beliefs being targeted and how they will be tested. Potential safety-seeking behaviors are identified so they can be relinquished during behavioral experiments to ensure that new learning is not disrupted by reliance on subtle avoidance strategies. For example, if a patient tests the belief that she cannot handle anxiety when she is the focus of attention by designing an experiment to sing
out loud while walking down the street, she will not benefit from testing her belief if she sings so softly that no one can hear her. Given the transdiagnostic application of behavioral experiments to inform case formulations and test maladaptive beliefs, they are a core strategy that may be used to identify, test, modify, and change problematic beliefs across multiple problems and disorders (Bennett-Levy et al., 2004).

### Attention Modification

Attention-focusing exercises allow patients to see how their focus of attention (e.g., bodily sensations, health concerns, negative self-images, environmental threats) can influence their thinking styles, beliefs, and feelings. These interventions also teach patients how to shift their attention.

### Attention Training Techniques

Attention training techniques (Papageorgiou & Wells, 1998; Wells, 1997, 2000) are an integral component of metacognitive therapy and may be used as an effective stand-alone intervention in the treatment of mood and anxiety disorders (Wells, 2009). They were designed to change attentional styles and increase metacognitive flexibility. According to Wells, “The metacognitive model assumes that the control of attention in psychological disorder becomes inflexible as attention is bound up with perseverative, self-focused, worry-based processing and monitoring for threat. The redirection of attention away from such activity should provide a means of interrupting the CAS [cognitive attentional syndrome] and of strengthening metacognitive plans for controlling cognition (improving flexible executive control)” (2009, p. 56).

Toward this end, patients are taught to selectively attend to particular sounds while not attending to competing ones, to shift attention between sounds, and then to attend to multiple sounds simultaneously. It is important to assess motivation and ensure that patients understand the rationale for these exercises to reduce the risk of using them as a form of emotional or cognitive avoidance. The goal is to increase awareness of the focus of attention and learn to strengthen control over it.

### Situational Attention Retraining

Situational attention retraining is used in metacognitive therapy to help patients shift attention in a way that allows them to process information that
is incompatible with maladaptive or distorted beliefs, or to shift away from monitoring for external threats (Wells, 2009). Clark and Wells's model of social phobia (1995) posits that patients with social anxiety engage in self-monitoring and self-focused observations with attention on negative thoughts, self-images, and internal cues. To address self-focused attention, patients engage in behavioral experiments to test beliefs and make observations as they practice shifting focus toward their external environment. They compare anxiety levels and beliefs about how they appear and perform when practicing external attention focusing versus engaging in self-focused attention, self-monitoring, and safety behaviors. Exercises that shift attention away from the internal and toward an external focus allow patients with social anxiety to discover that their anxiety lessens, which correlates with modifying beliefs about how they appear and perform (D. M. Clark, 2001).

Given that attentional bias toward threat may be a risk factor in PTSD (Aupperle et al., 2012), attention retraining can help patients with PTSD notice when they are engaging in external threat monitoring and selectively focusing attention on possible dangers. This provides a stepping-stone to assessing current situations in more balanced and effective ways, which is a key aspect of corrective learning (Foa et al., 2007). Attention training exercises to reduce bodily scrutiny have been shown to be effective in reducing hypochondriasis (Papageorgiou & Wells, 1998), and various attention-focusing exercises are useful in helping patients with health anxiety shift attention away from bodily concerns (Taylor & Asmundson, 2004). Thus, interventions aimed at modifying and changing attentional focus play an integral role in interrupting hypervigilance for threat and repetitive negative thinking, and by improving flexible executive control (Wells, 2009).

**Postponement Strategies**

Postponement strategies help patients refrain from engaging in immediate responses to internal or external triggers (e.g., reactive anger, escape behaviors, impulsivity), creating an opportunity to practice more effective responses learned in treatment. Postponement often is integrated into behavioral experiments, such as postponing worry to test beliefs about the uncontrollability of worry. Rumination or attending to and engaging in negative thoughts can be delayed until a later, designated time, which strengthens flexibility in how patients observe and change their responses to thoughts. The goal is not to suppress negative or anxiety-provoking thoughts, but to notice them and allow
them to arise and be present while at the same time disengaging from immediate responses of repetitive negative thinking.

Originally conceptualized as a stimulus control strategy, scheduling worry times can weaken associations between worry and external and internal stimuli (Borkovec et al., 1983). Patients are taught to identify specific worries, set specific places and times for daily worries, practice postponing worry as it is triggered throughout the day by refocusing attention on the immediate environment, and then use scheduled worry times to engage in worry. Postponement and scheduled worry or rumination times limit when and where those behaviors occur, modify and change beliefs about their usefulness, and allow patients to develop a sense of control over their responses and thinking styles when stimuli trigger the urge to engage in them.

**Exposure**

Exposure-based interventions target avoidance responses. Avoidance strengthens erroneous beliefs that situations, thoughts, feelings, and sensations are threatening and dangerous; that exposure to them might result in overwhelming feelings of distress or anxiety; and that the individual may not be capable of coping with the threat or discomfort. Exposure-based interventions aim to change responses to triggers of fear and discomfort by having the individual intentionally face such triggers without engaging in escape and avoidance behaviors.

Long-standing proposed mechanisms of change in exposure-based interventions have included habituation—decreasing conditioned fear by repeated and prolonged exposure to feared stimuli (Mowrer, 1960)—and emotional processing theory, in which corrective learning involves nonfear structures replacing or competing with original fear structures (Foa & Kozak, 1986). More recently, inhibitory learning (and its subsequent retrieval) has been highlighted as the key mechanism of change in exposure (Craske et al., 2008). Specifically, original associations learned during fear conditioning are not erased; rather, secondary learning about the associations develops. Exposures are designed to violate expectancies regarding feared outcomes (Craske et al., 2008; Craske et al., 2012), and strategies for optimizing inhibitory learning are emphasized, including promoting development of competing nonthreat associations and retrieval of those associations over time and across contexts (Abramowitz & Arch, 2013). Exposure sessions continue until expectancies have been violated.

Exposures can target behavioral avoidance of situations, cognitive avoidance of distressing thoughts, emotional avoidance of painful affective
experiences, or somatic avoidance of feared physiological (interoceptive) sensations. Exposure-based interventions may be conducted in vivo or by using imagery of the feared situation when real-life exposures are not possible (e.g., trauma experiences) or when patients are preparing for in vivo practices (e.g., imagining driving on the highway to generate sensory and emotional experiences prior to actually trying to do so). Traditionally, exposures are conducted through graded practices with response prevention of avoidance or escape behaviors, using a rank-ordered hierarchy of feared cues. Since violation of expectancies rather than fear reduction is the crucial change mechanism in inhibitory learning, exposures at varying levels of distress and across relevant contexts are targeted. Like behavioral experiments, exposure-based interventions provide disconfirming evidence for overestimations of threat or beliefs regarding inability to cope with or tolerate uncomfortable emotional states, thereby facilitating new learning.

Emotional exposure includes mindfulness of affective experiences to draw attention to the ebb and flow of emotions and challenge beliefs that negative emotions are interminable and intolerable (Linehan, 1993a). Emotional exposure often is used to increase tolerance of painful feelings such as shame, guilt, and anxiety and reduce patients’ tendency to escape situations that evoke them. Incorporating ACT interventions (acceptance, defusion, values-based action), both alone and in conjunction with exposure, can be instrumental in reducing fear-based symptoms (Meuret, Twohig, et al., 2012).

**Compassionate Mind Training and Imagery Rescripting**

Compassionate mind training was developed for individuals experiencing high degrees of shame and self-criticism, which tend to co-occur and are present in many disorders (Gilbert & Irons, 2005). It posits that regulatory disruptions among neurophysiological systems of drive and achievement, threat assessment and safety seeking, and affiliation and soothing contribute to chronic shame and self-attacking behaviors. While these interventions are often used to treat trauma-related problems (e.g., PTSD following abuse, social anxiety following bullying), they are helpful in targeting negative self-schemas and attributional biases across problems. Shame and self-criticism appear transdiagnostically and have been linked to depressive rumination (Cheung et al., 2004), poor adjustment following sexual abuse (Feiring et al., 2002), diminished efficacy of cognitive interventions (Lee, 2005), and relapse in patients...
recovered from depressed (Teasdale & Cox, 2001). Compassionate mind training has proven effective in reducing depression, anxiety, self-criticism, shame, inferiority, and submissive behavior (Gilbert & Proctor, 2006) and is the core strategy of compassion-focused therapy (Gilbert, 2010).

Compassion-focused therapy includes many interventions that help patients achieve balance among competing neurophysiological systems in order to experience self-compassion and increase their ability to self-soothe. Imagery can potentiate affective responses via activation of neural structures involved in emotion, perception, and autobiographical memory (Holmes & Matthews, 2010) and is used extensively in compassion-focused therapy to build self-compassion and self-validation as well as rescript outcomes to engender a sense of competence, safety, and control.

The two-chair technique (Greenberg, 1979) is used in compassion-focused therapy to help patients disengage from loathing and attacking different aspects of themselves and to facilitate self-compassion. For example, the therapist might gesture to an empty chair and ask an adult patient struggling with shame and self-criticism related to PTSD to imagine himself as a little boy sitting in session with them in present time. The therapist then might ask the patient how he sees that child and what he might say to him. When viewing themselves this way, patients often are more willing to relinquish self-attacking thoughts and behaviors.

Skillful creativity can be a key stepping-stone in developing self-compassion and helping individuals be kind to themselves. For example, children’s books depicting loving and compassionate relationships may be read with patients; mantras or affirmations may be developed for daily practice that reflect themes such as “I matter” and “I am lovable”; objects within the therapist’s office may be transformed into compassionate talismans that patients can recall during imagery; and patients can carry photographs of themselves as children to help them develop loving, kind, and compassionate self-schemas.

In imagery rescripting (Hackmann, 1998), patients focus on the negative content of intrusive images and memories and imagine alternative, positive outcomes that have been identified and practiced with the therapist. Imagery rescripting as either a stand-alone intervention (Brewin et al., 2009) or part of other treatments (Brewin, 2006) has been shown to be effective in providing symptom reduction in bipolar depression, hypomania, and PTSD. It is gaining increasing support as a transdiagnostic intervention for PTSD (Hackmann, 2011), social phobia (Wild & Clark, 2011), depression (Wheatley & Hackmann, 2011), eating disorders (Cooper, 2011), and personality disorders (Arntz, 2011).
**Distress Tolerance Skills**

Distress tolerance skills comprise a core module in DBT and were developed to help patients survive crises and accept reality as it is in the moment (Linehan, 1993b). These skills include most well-known stress management and relaxation techniques, such as progressive muscle relaxation, breathing retraining, self-soothing, and distraction. “Radical acceptance,” which refers to the ability to completely accept reality as it is in the current moment, is a key strategy within this module and is viewed as the path “to turn suffering that cannot be tolerated into pain that can be tolerated” (Linehan, 1993b, p. 102). Distinctions between willingness and willfulness are emphasized to help patients turn their minds toward acceptance, which is essential for effective problem solving. Patients also are taught biofeedback principles about how physiological changes accompanying shifts in body position and temperature trigger neurochemical changes that regulate emotions, which underlie interventions like half smiling, opening one’s hands to symbolize letting go, and briefly plunging one’s face into a bowl of ice water. Distress tolerance skills are effective in addressing multiple mechanisms, such as arousal and emotion regulation deficits, intolerance of uncertainty, and perfectionism. Once distress is lowered, patients can learn alternative coping strategies to replace escape and avoidance behaviors.

**Emotion Regulation Skills**

Emotion regulation is another DBT skills module. It was developed to help patients understand the critical functions of emotions, identify and label them, and reduce emotional reactivity (Linehan, 1993b). Some of the interventions are based on exposure principles to target emotional and behavioral avoidance, such as mindfulness of current emotional experiences (staying with the emotions until they dissipate) and engaging in behaviors that oppose action urges to flee unpleasant emotional states. Another strategy is creating positive emotional experiences, such as engaging in activities that evoke emotions opposite to those that are distressing (e.g., watching a funny movie to combat depression, learning to ski to target fear of heights). Cognitive interventions such as fact-checking address many of the cognitive misappraisals accompanying emotion dysregulation and help identify emotional responses that are justified based on the reality of surrounding circumstances (which are difficult to distinguish for individuals experiencing pervasive invalidation). Other emotion regulation skills involve improving sleep, nutrition, and exercise patterns to reduce physiological vulnerabilities to emotional reactivity.
Interpersonal Effectiveness Skills

Interpersonal effectiveness skills include assertiveness training and problem-solving techniques. Linehan (1993b) developed these skills to help patients with chronic interpersonal problems assess their expectations and goals in various situations and communicate more effectively with others about their needs, desires, and limits. However, many patients struggle with interpersonal communication and speaking up for themselves, regardless of presenting problem. These skills help individuals attend to relationships and find balance between others’ expectations and their own needs. Some skills help patients articulate desired relationship outcomes, while others modulate the impact of emotional reactivity and maintain the individual’s self-respect. Patients are taught how to listen to others, ask others to start or stop a behavior by using assertive scripts, identify goals for a particular conversation, recognize aversive interpersonal strategies they may engage in, and deal with conflict.

Adjunctive Skills Training for Specific Problems

In addition to the core change strategies, numerous interventions facilitate the development of skills to help with specific problems. We recommend using in-office training and practice, role-plays, and behavioral rehearsals to help patients master these skills and many of the other interventions described herein.

Physical Tension and Stress

A number of interventions help lower emotional arousal and reduce the physical tension that often accompanies stress.

Breathing Retraining

Breathing retraining is used to reduce stress and modulate emotional arousal. When patients release muscle tension and slow their breathing, the parasympathetic nervous system is activated, which helps them experience a more relaxed state by lowering their heart rate and blood pressure. Breathing retraining may be combined with mindfulness practices to help individuals let go of distressing thoughts and regulate emotions (Linehan, 1993b).
Breathing interventions are based on the principle that when the body experiences stress, muscles tense and air intake is restricted, creating a feeling of suffocation that frequently leads to hyperventilation. The resulting cascade of physiological changes related to reduced carbon dioxide in the blood (a condition referred to as hypocapnia) includes impaired nerve conduction, tingling sensations, tachycardia, and light-headedness or dizziness. This is particularly problematic for patients prone to panic, who are hypervigilant about respiration, heart rate, and other somatic experiences and tend to fall into a vicious cycle of increased hyperventilation and intensification of panic symptoms (see Meuret, Wolitzky-Taylor, et al., 2012, for a review). The capnometry-assisted respiratory training protocol (Meuret et al., 2010) targets panic-related hypocapnia by employing a portable feedback device to teach patients to control the rate and depth of breathing, which normalizes carbon dioxide levels and thus reduces hyperventilation. Findings show that these corrections mediated changes in symptom appraisal and perceived control and were associated with changes in panic symptom severity (Meuret et al., 2010).

**Progressive Muscle Relaxation**

Progressive muscle relaxation is based on the theory that many negative emotional states and psychosomatic conditions result from neuromuscular hypertension (E. Jacobson, 1938). It can be a core treatment component for some anxiety symptoms and has been found useful in reducing symptomatic distress in multiple psychological conditions (see Conrad & Roth, 2007, for a review). Progressive muscle relaxation is part of a standardized relaxation training program (D. A. Bernstein et al., 2000) that involves intentionally tensing and relaxing the muscles within various muscle groups throughout the body (e.g., legs, arms, torso) in a structured sequence. Patients are coached to tense individual muscles within each group for approximately seven to ten seconds as they inhale, followed by releasing them for about fifteen to twenty seconds as they exhale. Over time, patients learn to notice and differentiate states of tension and relaxation and can recall the sensations without tensing and releasing muscles. The goal is to achieve voluntary relaxation states throughout the body in order to reduce emotional arousal and distress across situations.

**Applied Relaxation**

Applied relaxation (Borkovec & Costello, 1993) involves learning skills to notice early signs of anxiety and respond with relaxation before the cycle
of anxiety becomes entrenched. It has been used as a treatment component for GAD and has been shown to be equivalent to cognitive therapy for treating GAD (Siev & Chambless, 2007). It incorporates psychoeducation about anxiety, exercises to enhance early detection of anxiety cues (e.g., clenched jaw, stiff neck), and relaxation skills. Relaxation training includes breathing retraining exercises, progressive muscle relaxation, and cue-controlled relaxation. Cue-controlled relaxation pairs words such as “relaxing” with physical and emotional feelings of relaxation following progressive muscle relaxation—for example, using the word “relaxing” when exhaling—so that future invocation of cue words in distressing situations will facilitate relaxation and reduce emotional and physiological arousal. Mindfulness-based body scans (Segal et al., 2002) are incorporated to increase nonjudgmental awareness of tension, helping patients release muscle tension throughout the day. Recently, it was hypothesized that applied relaxation may lead to clinical improvement via mindfulness, decentering, and acceptance (Hayes-Skelton et al., 2012).

**Guided Imagery**

Another intervention that facilitates reduction in emotional and physiological arousal is guided visualization of thoughts and images to elicit a feeling of safety and soothing. Imagery has been shown to be more effective than verbal, language-based processing in evoking emotions (Holmes & Mathews, 2010), and negative imagery is associated with a multitude of psychological problems (Hackmann & Holmes, 2004). Incorporating imagery into CBT can target multiple mechanisms and potentiate positive behavioral change (Hackmann et al., 2011). Imagery in the service of stress reduction utilizes meaningful, patient-specific scenarios rich in emotional, sensory, cognitive, and environmental detail to facilitate relaxation and self-soothing. For example, a therapist might help someone who enjoys the ocean visualize lying on a warm beach while imagining the sounds of the water lapping against the shore, the warmth of the sun on her face and the sand under her body, the salty smell of the ocean, and the cool breeze washing over her. Audio recordings of imagery exercises may be used to facilitate recall outside session.

**Anger Management Problems**

CBT protocols for anger management problems include psychoeducation about the anger cycle, stress management techniques (e.g., interventions
Selecting Interventions

targeting physical tension), cognitive restructuring, and assertiveness training (e.g., Reilly et al., 2002). Other models also include imaginal exposure of anger-inducing situations with coping rehearsal, training in problem solving, and motivational interviewing (Fuller et al., 2010). ACT-based strategies for managing anger emphasize mindfulness practices to facilitate acceptance of anger (versus attempts to control or suppress it), cognitive defusion to help patients increase tolerance of anger and alter how they respond to it, and identification of values and strategies for committed action to help them create a more desirable life (Eifert et al., 2006).

Problem Solving

Problem-solving therapy focuses on enhancing the ability to cope with life stressors and overcoming barriers to effective problem solving, such as cognitive overload under stress, limited emotion regulation skills, biased cognitive processing, limited motivation, and ineffective problem-solving styles (Nezu et al., 2013). Two problem-solving dimensions, problem orientation and problem-solving style (D’Zurilla et al., 2002), underpin this treatment, which presents strategies designed to enhance positive problem-solving orientation and rational problem solving, decrease negative problem-solving orientation, and minimize avoidant or impulsive problem solving (Nezu et al., 2013). Problem-solving therapy is an empirically supported and flexible approach that can be a primary or adjunctive treatment, with its efficacy demonstrated across multiple physical and emotional problems, including depression (Nezu et al., 2013). Many patients can benefit from interventions that improve problem solving. J. S. Beck (2011) uses a problem-solving worksheet to guide patients in identifying problems, revealing automatic thoughts and beliefs related to each problem, developing effective responses, and generating possible solutions.

Improving problem-solving skills is a core intervention in the treatment of ADHD, helping patients accurately identify problems, consider all possible solutions and likely outcomes of each option, choose the best solution based on potential outcomes, and break down tasks into manageable steps (Safren et al., 2005). Using tangible and external aids (e.g., writing things down) facilitates problem solving by decreasing reliance on working memory when completing these problem-solving steps (Barkley, 2010).
Attentional, Organizational, and Hyperactivity Problems

Interventions that were developed for adults with ADHD target neurophysiological vulnerabilities such as impairments in inhibition, self-control, and executive functioning (Barkley, 2010; Solanto, 2011). Patients with ADHD generally benefit from learning strategies that facilitate self-regulation of emotions and impulsivity and enhance recognition of and attention to the consequences of choices. ADHD protocols also include skills to improve self-control, such as increasing awareness of and resisting impulses, and learning to delay immediate gratification in the service of long-term benefits. Compensatory strategies for neuropsychiatric impairments in attention, inhibition, and impulsivity are instrumental in improving patient functioning (Safren et al., 2005). These include stimulus control strategies to manage distractibility (e.g., reduce distracting noises, increase background noise) and enhance problem solving, organizing, planning, and time management skills.

Organization and Planning

Problems with organization and planning reflect core executive functioning deficits in ADHD (Solanto, 2011), though patients seeking treatment for other problems (e.g., bipolar depression) may experience similar difficulties. Building skills in organization and planning involves many strategies that are individualized to patients’ needs and center around teaching them to develop external means of remembering rather than relying on their internal memory. For example, learning to use a single calendar and notebook to help remember appointments, activities, and tasks, with organizational systems that include color coding and clearly labeled file folders for distinguishing and quickly accessing information, is highly effective (Solanto, 2011). Other strategies include prioritizing tasks, developing systems for keeping track of items (e.g., always hang keys on the same wall hook), deconstructing large tasks into more manageable steps, working for shorter periods of time, and taking planned breaks to help maintain focus. Many patients may benefit from learning organizational and planning skills, especially if deficits in these areas impact other problems and overall functioning, including the ability to complete therapy homework.
Time Management

Time management is another primary executive functioning problem in ADHD (Solanto, 2011), though many patients can benefit from time management strategies, such as recording how long tasks take to make more realistic predictions about their capabilities and improve scheduling. Similarly, using timers or setting alarms to help cue remembering can help keep patients on task, and having regular check-ins with the therapist for feedback and coaching can facilitate ongoing practice between sessions to help patients master skills and incorporate them into daily routines.

Sleep Problems

Many patients experience sleep problems, which may stem from primary insomnia or from mood, anxiety, and other disorders. Treatment of sleep problems targets mechanisms of conditioned arousal (i.e., stimuli that signal sleep, such as the bed, bedroom, or nighttime, having become associated with insomnia), safety-seeking behaviors that contribute to an attentional focus and hypervigilance about sleep (e.g., symptom monitoring, clock watching), and dysfunctional beliefs about sleep. In addition to cognitive restructuring and behavioral experiments to address beliefs about “normal” sleep and negative consequences related to lack of sleep, other behavioral strategies are available to target maladaptive coping responses. These interventions help patients associate sleep stimuli with sleep and interrupt conditioning with other stimuli. Sleep restriction (restricting the amount of time spent in bed nightly to the average amount of nightly sleep, based on data obtained from logging sleep patterns) is used to increase sleep efficiency. Stimulus control strategies (limiting behaviors and conditions that could interrupt sleep and following a strict sleep regimen) are used to build conditioning of bedtime stimuli with sleep. Sleep hygiene strategies can help create healthy habits that may improve sleep, such as restricting certain activities (e.g., use of electronics) prior to bedtime and limiting use of the bedroom to sleeping and sexual activity. Many of the relaxation practices described earlier are incorporated to help reduce somatic and cognitive arousal, which may interfere with sleep. For detailed information about interventions to treat sleep disorders, see Morin and Espie (2012) and Perlis and colleagues (2011).
Problems Involving Eating Behaviors

Some patients experience problems involving bingeing, purging, and restricting intake of food, even if they do not present with a primary eating disorder. Due to the potential health risks associated with these problems (e.g., starvation, electrolyte imbalance), therapists must evaluate patients for medical intervention and seek consultation and referral as necessary. Traditional CBT interventions include cognitive restructuring of misconceptions about food and body weight; self-monitoring of food intake (e.g., what the patient eats, when and where food is consumed, situations and feelings surrounding eating); logging problematic thoughts and behaviors related to eating (e.g., urges to binge, misappraisals of food intake, vomiting, and laxative use); and preventing escape behaviors such as bingeing and purging (Fairburn, 2008). CBT strategies (J. S. Beck, 2007) are equally effective in helping overweight patients increase awareness of problematic thoughts and behaviors and learn skills to successfully implement healthy weight loss plans. ACT-based protocols (Sandoz et al., 2010) emphasize identification of patient values, interventions such as cognitive defusion to help patients step back from their problems, and increasing patients’ psychological flexibility so that they can replace problematic eating behaviors with committed action that will move them toward the life they want.

Problems with Body-Focused Repetitive Behaviors

Strategies aimed at reducing and managing body-focused repetitive behaviors, such as trichotillomania and pathological skin picking, encompass a range of interventions targeting core mechanisms hypothesized to contribute to these problem behaviors. Detailed self-monitoring of the behavior and its antecedents and consequences increases awareness of problem components and provides information to guide the selection and timing of interventions. Habit reversal training (Azrin & Nunn, 1973) includes awareness training, competing response training (e.g., responses that are incompatible with picking or pulling, such as fist clenching), and social support. A comprehensive model for behavioral treatment of trichotillomania (Mansueto et al., 1999) identifies problems and interventions across sensory, cognitive, affective, motoric, and situational domains. Many interventions can target mechanisms within these domains, including cognitive restructuring, emotion and arousal regulation.
strategies, and stimulus control (e.g., covering mirrors, removing tweezers), among others. Specific interventions to provide sensory substitutes (e.g., toys to fidget with, textured objects) and block automatic motor responses (e.g., wearing gloves or rubber fingertips, changing positioning of hands during routine activities) are among many available options that can be individualized to fit the patient’s needs. In addition, studies indicate that incorporating acceptance-based strategies from ACT (Flessner et al., 2008) and emotion regulation strategies from DBT (Keuthen et al., 2012) can be beneficial in treating problems with body-focused repetitive behaviors.

Other Interventions

While we have attempted to cover most well-known interventions, we recognize that there are countless techniques—well beyond the limits of space and scope of this book—that can help people resolve problems, reduce suffering, and improve their lives. Diagnosis-specific treatments (e.g., Linehan, 1993a), universal or transdiagnostic protocols (e.g., Barlow et al., 2011), and treatments targeting specific vulnerability mechanisms, such as perfectionism (Egan et al., in press) can help direct clinicians toward interventions proven most effective in targeting components of presenting problems. We encourage therapists to collaborate with their patients to find the most appropriate and effective interventions based on the TDM formulation, and to be creative in tailoring techniques to meet individual needs.
PART 4

Navigating the Transdiagnostic Road Map
Our unique categorization system informs selection of interventions based on their functional utility in targeting identified mechanisms. This selection process dovetails with the mechanism change goals and global outcome goals that flow from the TDM formulation. Treatment planning is based on our guidelines for prioritizing those goals with patients, including practical and safety considerations as well as problem severity, impact on patients’ lives, and patient amenability to interventions. Motivational issues must be considered, since success often can be as intimidating and anxiety-provoking as failure—especially when disruption and chaos have been the norm over extended periods of time. Also, some interventions pose considerable challenges, such as engaging in behavioral experiments and exposure-based exercises. Additional factors in treatment planning include tailoring interventions to meet individuals’ specific needs and applying skillful creativity to blend therapist and patient innovation with clinical methodology.

Because of the many factors to consider when planning treatment, we offer the following steps to help clinicians navigate the process:

1. Identify global outcome goals as they relate to presenting problems.
2. Hypothesize which mechanisms underlie and are contributing to problems, based on various assessment elements (diagnostic considerations, observations, specific examples, and mechanism measures that support specific TDM hypotheses).
3. Identify mechanism change goals.
4. Work with the patient to collaboratively agree on goals.
5. Assess the patient's motivation and potential limitations in regard to pursuing these goals.
6. Prioritize goals based on road map guidelines.
7. Using functional categorization, choose interventions that can best address the targeted goals.
8. Enlist patient feedback about treatment options and consider potential obstacles and the therapist's skill and experience.
9. Incorporate skillful creativity to individualize interventions and maximize effectiveness.

In this chapter, some of these steps will be highlighted as we discuss how to develop a treatment plan that addresses global outcome and mechanism change goals, prioritize those goals and select interventions to best meet patient needs, enhance patient motivation, and incorporate skillful creativity to strengthen the therapeutic alliance and maximize effectiveness of interventions.

**Working Toward Global Outcome Goals**

Global outcome goals stem from how patients want their lives to be different when therapy concludes. They might work toward returning to school to complete a degree, acquiring gainful employment, driving across bridges, or tolerating intrusive thoughts without engaging in the action urges accompanying them. Achieving these goals will be markers of treatment progress. Each patient's specific benchmarks of success inform the selection of clinical interventions. For example, based on Tom's presenting problems, his global outcome goals would likely include making a decision about his job; decreasing worry, anxiety, and depression; and spending more time with his family. Due to the time-sensitive nature of the job decision, this goal would be prioritized unless symptom severity or safety issues necessitated addressing his depression and anxiety first. All global outcome goals are considered when choosing interventions and assessing treatment progress.
In Linda's case, exacerbation of her bipolar disorder impaired her functioning and jeopardized her education. Stabilizing Linda's mood was paramount in helping her return to classes and clinic duties and resume her previously high level of functioning so she would not have to take another leave of absence from school. Linda also wanted to improve her relationships with friends so she could participate in social events, feel better about herself, and receive support. Helping her accept the chronic nature of bipolar disorder also was identified as an outcome goal, as this would increase her motivation to monitor and maintain her mood charting and self-care behaviors to ensure sustained mood stability, which she and her therapist agreed was a precursor for achieving professional success and personal happiness.

**Targeting Mechanism Change Goals**

Mechanism change goals provide detailed information to help further refine choices of interventions that can resolve presenting problems and aid in achieving outcome goals. Multiple TDMs are typically involved in maintaining patients’ difficulties, and selection of interventions depends on the formulation and treatment targets (e.g., reduce worrying, increase tolerance of uncertainty, reduce avoidance of emotional experiences). Patient needs, preferences, and limits also factor into clinical decision making. For example, exposure-based interventions are ideal for resolving avoidance behaviors, but initially a person's mood may be too low to effectively engage in them. If so, the therapist would prioritize reducing depression and perhaps increasing distress tolerance and emotion regulation skills via mindfulness and compassionate imagery. If the depression is severe, the therapist likely would prioritize behavioral activation strategies to mobilize the patient. To increase willingness and motivation to engage in exposure, the therapist first might provide psychoeducation about the nature of avoidance and conduct motivational interviewing about the patient’s goals relative to current limitations. Since treatment planning is formulation-driven, the possibilities are virtually limitless, and we encourage you to work with your patients to explore the clinical options that best suit their needs. However, to illustrate how the transdiagnostic road map guides the generation and selection of intervention choices in addressing specific mechanism change goals, in this chapter we will continue with our clinical examples.
Consistent with conceptualizations of bipolar illness (Frank, 2005; Goodwin & Jamison, 2007; Miklowitz & Johnson, 2006), Linda and her therapist identified several neurophysiological deficits in emotion regulation and sleep regulation as a starting point. These TDMs may be targeted with medication and other interventions that impact neurotransmitters, such as exercise, sleep management, stimulus control (e.g., reducing goal-directed activities to target hypomania), behavioral activation (to target depressive episodes), and nutritional adjustments (e.g., a balanced diet, regular mealtimes). Self-monitoring strategies will help Linda track mood and related constructs (e.g., emotional reactivity, triggers, energy level, sleep, action urges) and indicate whether interventions are working so she and her therapist can make appropriate adjustments to the treatment plan. Linda had been relying on avoidance mechanisms (e.g., not wanting to think about what she was experiencing, withdrawing from friends and cutting classes, surfing the Internet) to reduce painful awareness of her shifting mood and deteriorating functioning. These paradoxically reinforced cognitive misappraisals about her own functioning and friends’ feelings toward her, likely contributing to Linda feeling increasingly overwhelmed by her academic and clinical responsibilities and thus avoiding them more. Cognitive restructuring techniques and behavioral experiments could test Linda’s negative beliefs and resolve distortions that fueled her avoidance behaviors. Sustained mood stability could be followed by activity scheduling to resume normal functioning, increase social support, and build resilience to emotional experiences.

Mechanism hypotheses provide valuable insights to help anticipate and navigate obstacles, such as when emotional avoidance interrupts homework completion and session attendance, or when neurophysiological vulnerabilities (e.g., emotion and sleep regulation problems) contribute to medication non-compliance. Seasonal changes precipitated Linda’s most recent hypomanic episode, resulting in insomnia, abrupt discontinuation of medication, and excessive goal-directed activities, all of which contributed to experiential avoidance and the eventual depression Linda experienced. Linda’s therapy therefore must include planning for seasonal-based mood changes and implementing preventative strategies to help her stay mindful of mood fluctuations, access support systems, and respond appropriately to any changes in her functioning.

Similarly, it is important to explore early in therapy what patients have tried in the past that did not work, though this does not necessarily rule out including those interventions again. For example, Linda had trouble tracking mood because a previous clinician used an elaborate scoring system that suited
his desire for quantitative analysis of mood shifts but was confusing and overwhelming for Linda. The current therapist could work with Linda to create a new monitoring tool while also using motivational strategies to help her understand the importance of mood charting vis-à-vis managing vulnerabilities and developing more effective coping responses—necessary steps toward achieving sustained mood stability and completing medical school. Likewise, reviewing patient’s strengths and resources early on sets the stage for planning about how these can dovetail with interventions to achieve treatment goals. For example, Linda’s medical training helped her understand the neurophysiological mechanisms underlying bipolar disorder, so she and her therapist could draw upon this strength, along with her strong motivation and commitment to her goals, to help her grasp the long-term implications of her chronic condition and the adjustments necessary if she is to have a fruitful and satisfying life.

## Mapping the Road Ahead

Active treatment planning begins with summarizing the formulation and seeking patient feedback to ensure collaborative agreement regarding its accuracy and how to move forward. Doing so at different junctures helps keep therapy focused by continually refining TDM hypotheses and creating opportunities to correct misunderstandings and clarify the path ahead. This includes prioritizing and modifying goals as necessary, maintaining patient motivation, and resolving potential roadblocks.

Multiple TDMs contributed to Tom’s anxiety and depression, including fears of negative evaluation, negative schemas, withdrawal from positive reinforcement (avoiding time with family), metacognitive beliefs about the usefulness of worry, worrying about making a “wrong” decision (repetitive negative thinking related to fears of uncertainty and negative evaluation), and avoidance of decision making about his job opportunity. Anticipating potential treatment obstacles based on TDM hypotheses will prepare both Tom and his therapist for how they might handle and resolve these. This also creates opportunities to observe and address mechanisms in real time.

*Therapist:* So Tom, let’s summarize what we’ve learned so far. (*Summarizes the TDM formulation.*) I’m noticing how much more aware you are about your problems than you originally thought. You have lots of great observations and ideas, and I hope that you’ll continue to share them with me as we move forward.
Tom: (Smiles.) Thanks. It’s good to know that I’m better at this than I thought I would be.

Therapist: (Leans forward to convey genuineness and warmth.) You really are good at this, Tom. And be sure to let me know if you ever feel confused about what we’re doing or why we’re doing it. We’re a team, and I really want to hear what you think rather than have you be polite and go along with something that doesn’t make good sense to you. (Emphasizes the importance of collaboration and communication.) That’s especially important regarding how the therapy is going and how I’m working with you.

Tom: I can do that, but I’m really not sure how to approach my problems, so I’m open to whatever you suggest.

Therapist: That’s okay, Tom, but I’m guessing you’ll be surprised by how many ideas you generate. (Returns to TDMs.) For example, we know that you experience social anxiety, which includes fears about being evaluated by others, so I’m wondering if you think that might happen in therapy as well.

Tom: Yeah, it probably will. (Looks embarrassed.) I’ll want to do a good job in here so you don’t feel like you’re wasting your time with me.

Therapist: That’s a really important observation. I can see how hard it is to share that, and I really appreciate your courage and willingness to do so. (Validates Tom’s contribution and highlights his strengths.) Can we talk about that? I think it will help us understand how the mechanisms that show up in your life can show up here with us too, which may give us some great opportunities to work on them together.

The therapist and Tom can discuss how the mechanisms of fear of negative evaluation and Tom’s desire to please others related to a negative self-schema might interfere with therapy, such as making it difficult for him to make treatment decisions or suggest his homework ideas. Preparing in advance for TDMs reduces their impact on treatment and allows both therapist and patient to be aware of their occurrence so they can address TDMs as they arise. Once this is accomplished, Tom and his therapist are ready to begin prioritizing treatment goals, deciding which mechanisms to address first and which interventions will be good starting points.
Therapist: Tom, let’s decide where to begin. Of the problems, treatment goals, and mechanisms we’ve discussed, which stand out for you as priorities that we might want to tackle first? (Because there are no safety or other concerns requiring immediate attention and Tom is functioning relatively well, the therapist seeks Tom’s preferences.)

Tom: (Appears anxious.) I really need help deciding whether to take this transfer. I’ve made excuses to buy time, but I can’t delay any longer. I have to give my boss an answer in the next few days.

Therapist: (Speaks calmly to help ease Tom’s distress.) That sounds like a pretty high priority.

Tom: The timing makes it really stressful, but I know I’ll feel relieved once I give him a decision. I need help with that right away.

Therapist: Okay, so deciding on the job and giving your boss an answer sounds like a good place for us to start. (Clarifies the plan to ensure agreement.)

Due to some urgency regarding Tom’s job decision, the therapist decides to focus on this general outcome goal first, which is Tom’s stated priority. If she learned that his boss merely suggested this transfer opportunity and it was not imminent but Tom was overly focused on it, she would choose other goals (e.g., decrease repetitive negative thinking or worry, identify and change schemas that lead to a false sense of urgency, increase behavioral activation to improve mood). Similarly, if Tom had suicidal thoughts, was severely depressed, or had difficulty functioning in daily life, priority goals likely would include arranging a psychiatric evaluation and medication consultation, making plans to keep Tom safe, behavioral activation strategies to increase activity level, increasing positive reinforcement and social support, and discussing options to request an extension on his job decision.

However, given that Tom and his therapist have prioritized an item for treatment and for this session, we will look at how they might begin to address it. Equally effective intervention choices may exist at this juncture, and the therapist likely will offer suggestions about how Tom might approach his problem. A good starting point, though, is to ask if Tom has any ideas about what has worked for him in the past, focusing on what has been tried and whether it was helpful.

Therapist: (Speaks gently to convey curiosity and minimize Tom’s fear of negative evaluation.) Tom, let’s take a look at how you’ve been approaching
this decision so we can get some ideas about what is and isn’t working for you.

**Tom:** (Appears a bit more relaxed.) Well, I think about it a lot. That’s my problem. (Looks down and away.) I keep thinking about it but never make a decision. I can see reasons to accept the transfer and to decline it. Mostly, I get scared about the all the negative things that could happen either way. Then I feel overwhelmed and stuck. (Slumps down.)

**Therapist:** That makes sense, Tom, and I can appreciate how awful that feels. You’ve been thinking about it a lot, going back and forth, and because negative things could happen either way, you get stuck. (Summarizes Tom’s struggle, to both clarify and validate his experience.)

**Tom:** Exactly! (Responds positively to therapist’s validation.) I’m afraid of what people will think if I make the wrong choice, and eventually it feels like there’s no good decision. So I try to stop thinking about it, but then I get discouraged and overwhelmed. On top of all that, I feel like it’s not okay to enjoy doing anything else until I make a decision, so I end up doing nothing and can’t bear the thought of even seeing anyone because I feel so terrible about myself.

**Therapist:** (Leans forward.) That’s the avoidance and withdrawal we talked about, which also contributes to your negative self-image. Does that help you not think about the decision?

**Tom:** (Throws hands up.) No! I keep worrying about it and go around in circles. I just feel worse, and I’m not doing anything productive or fun. I’m missing time with my family.

**Therapist:** (Smiles warmly.) Great observation, Tom. (Summarizes TDMs.) Thinking about the decision leads you to think about things that can go wrong no matter what you decide—and there’s no way to feel certain about what’s the right decision [intolerance of uncertainty]. This then fuels worrying about what people might think of you if you make a “bad” decision [worry, fear of negative evaluation]. So you try to not think about it anymore [cognitive avoidance: thought suppression], but the thoughts keep coming back anyway. You still spend lots of time thinking about it [repetitive negative thinking], and you feel worse when you avoid or withdraw from other activities [escape and avoidance].
Tom: That pretty much sums it up. So I get that I should stay active and do more things, but it keeps gnawing at me that I need to make a decision … and then I feel stuck again.

Therapist: (Leans forward.) I understand, and that’s something I can help you with: how to keep active and enjoy your life, even when something is on your mind that makes you uncomfortable. It’s a common thinking trap people fall into. (Validates Tom’s experience and helps him see he isn’t alone.) “Until X, I can’t do Y.” In your case, “Until I make a decision—and feel like it’s the right decision and I won’t be criticized for it—I can’t do other things or enjoy my life.”

Tom: (Sits up and seems more hopeful.) Exactly! I get caught in that trap a lot.

Therapist: That’s definitely something we can work on, Tom. But right now I want to help you with your priority goal, which is making this decision.

Tom: Great. I see that what I’ve been doing isn’t working, so what should I do instead?

Therapist: I’m happy to offer my ideas, and I’m pretty confident that you have some good ideas of your own. (Underscores the collaborative partnership and offers validation to challenge Tom’s negative self-schema.) Let’s see if we can ferret those out. Have you had other times in your life when you’ve needed to make decisions but got stuck? What helped you then?

Tom: Lots of times. Just making a darn decision—even if it turns out to be a bad one—always feels so much better than staying in limbo.

Therapist: (Helps Tom check the facts.) Did you ever wish you’d spent more time thinking about a decision so you felt more certain about it?

Tom: (Smiles.) No. You can never know what’s going to happen, and somehow it always works out. I typically find a way to make things work, no matter what comes up.

Therapist: Great point! What you’re saying is that there can always be disadvantages to any decision, but you’re not likely to find certainty about your decision, right?
Tom:  For sure.

Therapist:  (Challenges Tom’s negative self-schema again.) And you always deal with whatever comes up, right?

Tom:  (Smiles.) Pretty much. I’m actually quite good at handling real problems that come up, both at work and at home. It’s just making decisions—usually important ones—that gets in my way.

Therapist:  Yet, no matter what you decide, you always seem to handle problems that come up.

Tom:  (Smiles.) Yeah, I do! (The therapist might ask Tom for some examples of how he’s handled problems in the past, including consequences of his decisions, to gather evidence of real-life examples supporting Tom’s observation. This provides more insight into Tom’s strengths and supports his observations of how capable he is.)

Therapist:  That’s really important information for us, Tom. So when you hear yourself saying that you always cope with whatever problems arise, I’m wondering what your thoughts are on why you feel so stressed about making decisions.

Tom:  (Smiles.) I see where you’re going with this.

Therapist:  (Explores potential reasons for Tom’s struggle.) Is this decision somehow different?

Tom:  It feels really important, but it’s not more important than other decisions that I’ve made in my life, like accepting this last job or choosing my career. It’s not knowing how it will turn out that gets to me.

Therapist:  You’re raising an important point, Tom. How did you handle those decisions despite not knowing how they’d turn out?

Tom:  Like this one. I always stress, worry, overthink, and get depressed. But eventually I’m fine with whatever decision I make. My decisions actually have worked out well for me overall. (Sits up and appears more confident.)

Therapist:  So we’ll want to work on changing this pattern, huh?

Tom:  I would love to! I guess I can start by making this job decision.
Therapist: Do you know what decision you want to make?

Tom: I think I want to take the transfer, but it makes me anxious for all of the reasons we’ve talked about.

Therapist: Okay. So it sounds like you know your answer, but we need to help you cope with the concerns that are getting in your way.

Tom: Yeah. . . . That’s what I try to do. I’m always thinking, What if this happens? or What if that happens? I keep hoping that if I think about it enough, I’ll know what to do and be prepared for what might happen. (Therapist notes how Tom is describing a function that worry appears to serve for him [metacognition about worry]: if he thinks about it enough, he’ll understand his concerns and know how to deal with them.)

Therapist: (Explains and validates this TDM.) I’m noticing that worry and overthinking seem to serve an important function for you: if you think enough, you’ll get a handle on your concerns and be able to plan ahead. You’ll get clarity about what to do and feel more certainty about your decision. Does that seem right?

Tom: I think I’m beginning to get it. Worry and overthinking don’t work. They don’t actually help me at all. But how can I deal with my concerns about accepting this transfer?

Therapist: That’s a good question, Tom. Let’s look at how we might do that.

The therapist has used Socratic questioning and guided discovery to increase mutual understanding of Tom’s problems and the mechanisms contributing to them. This allows her to recommend various options to help Tom generate ideas about how to approach the job decision. Possible interventions include listing advantages and disadvantages of accepting or not accepting the transfer, which would help Tom itemize and evaluate his thoughts about decisions rather than continuing to let them spin in his head and fuel his anxiety and inertia. Identifying the advantages that are most meaningful to him (e.g., improving his finances so he can better support his family) and the disadvantages that are of most concern (e.g., what his father and others might think of him) would give Tom and his therapist concrete points to discuss. Moreover, he would learn an effective strategy to use when faced with future decision making and can explore his broader values and how taking or not taking the transfer fits with them. It also would create an opportunity to identify
perceived disadvantages that may be cognitive distortions (e.g., catastrophizing, predicting the future) or concerns for which Tom could use problem solving, allowing him to take a more active role in coping with potential adversities. In addition, the therapist could teach Tom how to use a thought record to identify automatic thoughts about his decision, and use the downward arrow technique (Burns, 1999) by asking questions such as “What would be so bad about that?” or “What would that mean about you?” Both of these interventions could illuminate what Tom is most afraid of and help him develop new responses to those fears, including decreasing threat appraisal, increasing his tolerance of uncertainty so that he can develop a more positive orientation toward problem solving, or practicing acceptance-based responses to counter avoidance strategies.

Thus, there is no hard-and-fast rule to apply to choosing interventions, and therapists have a wide range of clinical options at their disposal. Armed with TDM hypotheses, global outcome and mechanism change goals, and parameters for prioritizing problems, Tom’s therapist has a compass to guide decisions at each treatment juncture. As an equal partner in the alliance, Tom will play an instrumental role in choosing among the therapist’s suggested interventions. He may prefer listing advantages and disadvantages of possible decisions, noting that this strategy has helped him with other decisions in the past, or he may prefer a thought record as a concrete tool to clarify his thoughts and fears so he can begin to challenge them as they arise. Alternatively, Tom may find that identifying cognitive distortions helps him label and view his thoughts more objectively so he can step back from them and not be so consumed by them. Completing a values exercise (S. C. Hayes et al., 2012) may be appealing because it can help Tom determine whether accepting the job transfer is compatible with his overarching values. Many choices are available to help Tom move toward his prioritized goal of telling his boss that he will accept the transfer rather than postponing and avoiding the decision. The focus is now sharpened to choosing interventions that can provide Tom with concrete tools to understand and respond to his concerns about taking the transfer and reduce his repetitive negative thinking and cognitive avoidance.

As Tom tackles the job decision, it is likely that his fear of negative evaluation (especially concerns about how his father will judge him) and negative schemas will be activated. Tom and his therapist can then begin identifying how these TDMs affect his ability to make decisions and target them in future sessions. Therapy also will involve clarifying Tom’s metacognitions about repetitive negative thinking—specifically the apparent function of worry—which can be targeted with cognitive restructuring and behavioral
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experiments. Interventions such as attention training exercises and scheduled worry time can help him interrupt worry patterns and reduce time spent engaging in worry. Tom understands how behavioral withdrawal from positive reinforcers (e.g., not spending time with family) contributes to depressive symptoms, so monitoring for this TDM and engaging in behavioral activation also will be prioritized to improve mood and reduce the risk of more severe depression.

As new goals are identified, they are incorporated into the TDM formulation and become the focus of treatment. Interventions may be used to achieve multiple goals, especially if patients benefit from and see the value of using these interventions as ongoing life strategies to approach different problems. Also, one intervention can meet several global outcome and mechanism change goals. For example, behavioral experiments can be used to test cognitive misappraisals or the function of metacognitive beliefs, modify schemas, illustrate the benefits of mindfulness and attention-focusing practices, increase behavioral activation, or decrease avoidance behaviors. Considering interventions’ functional utility in meeting whatever goal is prioritized at any point in time helps therapists map a course to patients’ final destinations.

While Tom and his therapist have a clear path forward, if they later learn that other mechanisms seem to exert a greater influence on his problems, they can easily shift course based on the data. For example, if Tom realizes that the demands of the new job are inconsistent with his values because the increased responsibilities would lessen the time he could spend with his family, he and his therapist might choose to anticipate the consequences of saying no to the transfer (including how his father might respond) and work on interpersonal effectiveness and practicing different “coping ahead” responses (Linehan, 1993b). If Tom struggles with asserting his preferences, solid intervention choices would include assertiveness education and training, behavioral experiments, role-plays, and increasing tolerance of others’ disappointment.

Treating People Versus Problems

Individuals often seek out therapists who specialize in treating the types of problems they have. However, the initial assessment may reveal other problems and symptoms that lead to additional diagnostic and mechanism hypotheses, influence patient motivation, and alter patient priorities and treatment goals. For example, patients may seek treatment for problems with body-focused repetitive behaviors such as hair pulling or skin picking, yet they may have
additional problems that require clinical attention (e.g., depression)—not only because they might be priority problems but also because, if not addressed, they can affect the patient's ability to successfully work on the presenting concern. Thus, the therapist will develop a formulation to understand the various components of the presenting problem within the broader conceptualization of all the patient's clinical concerns. To better illuminate how to choose interventions based on TDM hypotheses and treatment goal prioritization, we will use several case examples to illustrate how intervention choices can be vastly different for the same presenting problem and global outcome goal.

Steven suffers from severe skin picking and has infected wounds, but his shame surrounding this problem prevents him from seeking medical attention. He also is severely depressed and lives alone. Despite having numerous friends in the area and previously enjoying many outside interests, Steven has become withdrawn and isolated. He is very bright and has a history of successful job performance, though he now works from home and struggles with procrastination and avoidance of work tasks by watching television most of the day. Steven's skin-picking problems have worsened significantly in the last six months, and a functional analysis identified sensory, cognitive, affective, and motoric behaviors as contributing factors (Mansueto et al., 1999). Situations where he is most vulnerable to picking primarily are at home when he is alone, avoiding work tasks, and seated in positions where his hand automatically goes to areas on his body where he is prone to picking. Hypothesized TDMs contributing to Steven's problems include perfectionism, activation of negative schemas, behavioral withdrawal, deficits in arousal regulation, and avoidance behaviors. He seems highly motivated to make changes in his life.

Jessica pulls hair from her head but has no visible bald spots. She abuses alcohol daily but does not see drinking as a problem, telling her therapist, “Drinking won't affect my ability to work on hair pulling.” Jessica is receiving poor grades in school and fears that she may fail out. She frequently fidgets and has difficulty concentrating in session. After reading about treatment for trichotillomania, she commented, “I don’t want to monitor my pulling because it will make me feel bad and overwhelmed if I have to notice my feelings when I pull. Besides, I’m too busy. I just want to learn strategies to stop pulling.” Jessica likely has some neurophysiological vulnerabilities (like Steven) that contribute to her problems, and further assessment will reveal if other underlying vulnerability mechanisms are involved. The alcohol abuse is quite concerning, though Jessica is not at all motivated to work on it. She engages in numerous avoidance behaviors and desperately tries to avoid experiencing negative emotional states. These TDMs currently preclude monitoring hair
pulling behaviors and are of greater concern to the therapist than the hair pulling itself.

Anika pulls hair from her eyebrows and eyelashes and feels embarrassed by this behavior. She tries to disguise her missing hair and avoids going out in public after pulling episodes. Anika has difficulty sitting still and frequently fidgets with her hands and surrounding objects. Unlike Jessica, she recognizes that hyperarousal states are related to pulling behaviors. She agrees with her therapist that interventions aimed at increasing awareness, decreasing physiological arousal, and regulating emotional states will not only help her feel better, but will also help her monitor and intervene in pulling behaviors. Anika is motivated to work hard in treatment because she dislikes the negative consequences of pulling, including not feeling comfortable going out with friends whenever the missing hair is noticeable.

Clearly, patients can present with similar problems, diagnoses, and primary general outcome goals (e.g., decrease body-focused repetitive behaviors) yet very different formulations and intervention choices can result based on accompanying problems, variations in motivation and priorities, and underlying mechanisms (including TDMs that either preclude or enhance working on others).

Steven agrees with the therapist that his multiple problems are related and need to be addressed in treatment, beginning with prioritizing taking steps toward making an appointment to see a doctor due to the severity of his wounds. Interventions will be selected that target TDMs contributing to shame while simultaneously working on action steps to see a physician. Given Steven's depressive symptoms and vulnerability to pick when home alone, behavioral activation will likely precede other interventions to decrease skin picking.

Jessica's therapist will consider interventions to help increase her awareness of her problems and motivation to work on them. Addressing her alcohol abuse is an important treatment priority, though Jessica's inability to perceive this as problematic must be tackled before addressing the drinking per se. Psychoeducation and motivational interviewing will be instrumental in helping Jessica understand how her problems are interrelated, and introducing a values exercise might increase her motivation to work on avoidance behaviors, develop more effective coping strategies, and improve her academic performance.

Anika's therapist likely will begin treatment by teaching her self-monitoring strategies to increase awareness of pulling and its antecedents and consequences. Since Anika is highly motivated to learn skills to manage her problems, therapy will focus on developing strategies that target arousal, emotion regulation, and other identified problems in sensory, motoric, cognitive, and
environmental domains. Anika also might consider talking with her friends to support her ability to engage in treatment interventions and decrease shame.

Thus, there are many possibilities for treatment planning, even for a particular goal. No single strategy necessarily is preferred over any others; rather, the choice depends on the formulation and patient’s needs, reflecting the elegance and flexibility of the road map. Mechanism change goals and global outcome goals are closely interwoven, which helps therapists and patients narrow the focus in choosing interventions to achieve those goals. The selection of interventions is determined by the details of the TDM formulation, prioritization of goals, individuals’ unique characteristics (e.g., needs, limits, preferences, willingness), and the functional utility of clinical options with respect to treatment objectives. As with other elements of the road map, each choice point on the path forward is governed by collaborative decision making and data evaluation.

Addressing Patient Motivation

As therapy progresses, patients’ level of motivation occasionally may waver, requiring empathic and skillful action by the therapist. Seasonal and hormonal changes in mood, environmental stressors, anxiety about treatment, and countless other issues arise that may impact patients’ ability to engage fully in the treatment process. In these instances therapists may find themselves feeling frustrated or demoralized because it seems like the patient is unwilling to move forward, particularly if significant progress has already been recorded and setbacks occur. Just as we caution our patients, however, feelings are not facts, and it is important to check for accuracy, seeking to understand what may be impeding progress at any particular point in time—including our own behaviors in session.

For example, when progress slows, clinicians may feel they have failed to help the patient achieve desired outcomes, which could lead to undue pressure to forge ahead without attending to the patient’s distress or pausing to assess the situation. When therapists approach patients with acceptance and compassion, patients often feel more heard and understood, which is especially important when they are struggling in treatment (and in general). Some individuals experience intense anxiety as they approach more challenging phases of treatment, such as exposure to past trauma memories or feared situations (e.g., using a public restroom during exposure and response prevention for OCD). Regardless of circumstances, when bumps in the road occur, therapists
can work closely with patients to help them stay motivated to figure out and resolve these stumbling blocks. In addition to facilitating resumption of forward progress, these types of experiences can build a sense of mastery and resilience, which ultimately will help patients continue to learn, grow, and practice skills long after therapy has terminated.

To illustrate how some of these issues might be handled in session, we turn to Manuel, a young paramedic from El Salvador who has been in therapy for residual anxiety and mild depression following a motor vehicle accident in which his partner was seriously injured and Manuel could not reach him to help before other paramedics arrived. Manuel had been making good progress in therapy but began to experience increasing depression, inertia, and low motivation after losing his job due to budget cuts.

**Therapist:** *(Speaks with a concerned expression.)* Manuel, I was hoping we could talk today about the fact that you haven’t completed your therapy homework this week, and when I look at your last mood and anxiety scores, it seems like you’re really struggling. Could you share some thoughts about what might be going on? *(Acknowledges Manuel’s current struggle while engaging him in exploring its underpinnings.)*

**Manuel:** *(Slumps down on the sofa and looks away.)* I feel really overwhelmed. I can’t believe I got laid off, especially with Paul still not able to work because of his injuries. *(Sighs.)* I don’t know what to do to make ends meet. The rent is almost due, we barely have any groceries in the house, and we’re constantly at each other’s throats. I just don’t know how things are going to get better. *(Sounds despondent.)*

**Therapist:** I can appreciate how hard this is for you. And I’m pretty sure that if we put our heads together we’ll figure something out. *(Validates Manuel’s pain while providing hope for improvement and gently trying to raise motivation.)*

**Manuel:** *(Sits up and sounds a bit frustrated.)* I know you’re trying to help, but the last thing I feel like doing is filling out therapy forms. I don’t see how that’s going to help me now. *(Throws his hands up.)* I don’t even know how I can keep coming to therapy if I don’t have a job.

**Therapist:** *(Leans in to convey empathy and compassion.)* I totally understand, Manuel, and I’m committed to doing whatever it takes to help
you—whether it’s working on your depression, finances, relationship, or anything else that comes up. We’re a pretty good team, and you’ve been making great progress in therapy. I’m confident that we can get through this challenge together. (Gently reminds Manuel that he isn’t alone and has developed many skills that could benefit him now, while offering encouragement to instill hope.) It would be really sad—for both of us—if we stopped now. (Offers personal disclosure to validate Manuel’s dilemma and help him stay engaged in therapy.)

Manuel: (Speaks apologetically.) I don’t mean to snap at you. I’m just really freaked out about everything. I don’t want to stop therapy. I just don’t see how I can continue. (Slumps down again.)

Therapist: (Leans forward.) I know, Manuel. It’s okay. I’m totally willing to figure something out with you so we can continue therapy and come up with a financial agreement that works for both of us. We also can focus more on how to manage all the stress in your life right now and reduce the risk of your depression returning. (Provides reassurance while suggesting a shift in therapy goals and financial aspects of the treatment agreement to accommodate the current crisis.)

Manuel: I already feel depressed about the whole job and money thing. (Looks up and seems more engaged.) You really will work something out to keep seeing me?

Therapist: (Smiles warmly.) Absolutely. (Speaks irreverently to underscore the alliance and assess Manuel’s ability to respond to humor, given his low mood.) You can’t get rid of me that easily! In all seriousness, I know things are really hard, Manuel, which is why I want to work something out to help you continue therapy. (Validates Manuel’s experience and emphasizes that treatment tasks are for his own benefit.) That way you can catch dips in mood and spikes in anxiety early so you can use your skills to keep from getting overwhelmed. We also can work on your job search and trying to restore some structure for you, which can help reduce depression and anxiety. How does that sound? (Checks with Manuel to ensure agreement on new therapy goals.)

Manuel: (Looks more hopeful.) That sounds good. And maybe at some point we can have Paul come in to talk about this. I know he wants to support me and do whatever he can to help.
Therapist: That sounds like a great idea! Let’s spend the rest of this session focusing on some things you can do this week to help you feel better and search for jobs, which also might help you feel more in control of the situation.

A core strategy throughout therapy is to maintain an empathic and collaborative stance in order to validate patients’ experiences and address any impediments to forward progress. Gently discussing interventions can help increase patient motivation and encourage more active participation in treatment. When the therapist verbalizes genuine compassion and commitment to success, this can be validating in itself, especially when patients are unable to imagine a life without suffering or a sense of failure. It also provides a foundation on which patients can hone their skills and develop confidence in their own ability to achieve success in treatment and in life.

Incorporating Skillful Creativity

Skillful creativity encompasses the art of clinical science, incorporating the best of therapist and patient innovation into evidence-based interventions and offering potential solutions to presenting problems when no others exist. Creative strategies can help patients articulate thoughts and feelings, especially when shame, anxiety, and fear of judgment impede their ability to do so. For example, discussing a particular movie, book, or song can help patients reflect on their own experiences by paying attention to emotions, thoughts, sensations, and images that arise.

Art, literature, music, and other media can be quite effective in facilitating access to internal experiences when cognitive and emotional avoidance might be targeted TDMs. For example, we frequently use patients’ childhood photographs to help them step back from self-critical thoughts and access self-compassion by imagining how they might interact with that child today. Similarly, themed children’s books such as The Velveteen Rabbit or The Tale of Despereaux can help patients of all ages understand the value of taking risks in relationships, which can be quite challenging for those who have experienced invalidation and therefore fear engaging in new relationships—including the treatment alliance.

Devising creative strategies with patients also can enhance and accelerate treatment. Dennis, a young man struggling with PTSD after two tours in Iraq, brought action figures to therapy sessions to help him engage in exposure tasks
to resolve the trauma. Maureen put photographs of herself engaging in activities with friends and family on her smart phone, which helped her become more motivated for behavioral activation exercises to overcome her depression. Maureen also turned to these photos as a grounding tool whenever she felt alone and became hopeless about her future. Tracy, a teenage girl being treated for PTSD after a violent mugging, was able to engage in cognitive restructuring of the trauma and thus challenge beliefs that she was inherently bad and was responsible for the mugging after the therapist gave her a purple heart to signify her courage and offered the alternative conceptualization of being wounded in battle. This intervention was instrumental in helping Tracy let go of overwhelming shame and self-loathing, marking a turning point in her ability to engage more effectively in therapy.

Turning back to our earlier clinical vignettes, Linda’s education and training as a medical student and her experiences with patients could be used to create analogies to difficulties she has had in her own treatment, drawing on how her patients’ lives have been affected when they have not followed her recommendations and how she worked with them to increase their motivation and willingness to participate in treatment. This could provide a valuable springboard for increasing her own motivation to stay on her medication and engage in long-term strategies such as daily mood monitoring, regular exercise, balanced nutrition, and good sleep hygiene. Similarly, the therapist might suggest certain smart phone applications to help Linda track her mood and other treatment targets, or they might devise a progress monitoring form they both can access and edit on a secure website. Tom benefited from imagining himself in the shoes of his favorite athletes and role models, as this helped him build confidence and a sense of mastery, especially when thinking about talking with his father.

As can be seen from these examples, there are endless possibilities for incorporating skillful creativity into treatment planning. While the goal is to individualize interventions and enhance their effectiveness, we have experienced this aspect of the road map as a fun endeavor that often strengthens the therapeutic alliance. We encourage you to collaborate closely with your patients in devising innovative strategies to target TDMs and achieve desired outcomes.
CHAPTER 10

Assessing Progress, Changing Course, and Ending Treatment

A ny empirical approach to treatment includes progress monitoring, which allows therapists to assess the accuracy of their formulation and the effectiveness of interventions in resolving patients’ problems, and guides any necessary changes to the treatment plan to facilitate achievement of therapy goals. Many tools are available, including structured symptom checklists, mechanism measures, and mood charts, along with idiographic instruments developed in collaboration with patients, which are equally useful. Regardless of method chosen, we urge clinicians to monitor therapy outcomes for each individual and to engage in ongoing discussions about how treatment is progressing, whether goals are being met, and when and how to end treatment. This allows therapist and patient alike to determine if treatment is working and, when it is not, to identify potential impediments and generate alternative mechanism hypotheses to explore. When progress stalls, therapist and patient can explore this and change course by modifying the formulation or clinical strategies as needed to get back on track toward identified goals. Progress monitoring informs decisions about successful termination, as well as about when it is necessary to refer patients to other therapists, such as when an individual has exhausted the benefits of the current treatment or an unresolvable conflict irreparably ruptures the treatment alliance.
Progress Monitoring

Therapist monitoring of patient progress has been shown to improve therapy outcomes, including boosting results for patients who either are at risk for negative outcomes or initially demonstrate poor outcomes (Lambert, 2010; Lambert et al., 2005; Shimokawa et al., 2010). Having patients also record changes in their symptoms, problems, and functioning underscores the collaborative nature of therapy, boosts treatment effectiveness, and can help reduce self-criticism and increase a sense of personal mastery and control (Antony et al., 2005). In addition, progress monitoring alerts therapists to the development of new problems, which may then be incorporated into the formulation and targeted as well.

Assessing patients’ progress provides a continual feedback loop that operates throughout therapy and involves monitoring whether targeted TDMs are shifting to reduce vulnerabilities and yield more effective coping responses, and whether patients are achieving their goals. One way to assess progress is to determine if patients’ functioning is improving relative to how they presented at intake and during previous stages of treatment. However, therapists and patients must bear in mind that progress rarely takes a straight path and typically waxes and wanes over time. What matters is that the overall trajectory reflects forward movement toward established goals.

Tracking Progress Toward Global Outcome Goals

Measurable markers identified early in treatment indicate whether patients are progressing toward global outcome goals. While broad outcome goals such as “building resilience” are vague and hard to measure, the therapist can easily assess progress if a patient identifies moving out of her parents’ home, developing mutually satisfying relationships, and applying for jobs as specific markers of success. Similarly, two different individuals may enter therapy for the same reason, to “reduce anxiety,” but one person may seek to accept and initiate more social invitations, while another may set the goal of continuing to drive to work even when panic sensations arise. Specificity in regard to identifiable objectives for both global outcome and TDM change goals allows therapists to be more accurate in assessing patients’ progress across important life domains, such as work performance and personal relationships.
For example, Tom sought therapy because he felt in a funk due to facing a tough job decision and was struggling with anxiety, indecision, and some depressive symptoms. Based on the specific objectives they established, Tom and his therapist would know he was making progress if he achieved lower scores on quantitative measures of depression and anxiety, increased his activity level, spent more time with his family, and noted less time spent engaging in worry thoughts on a weekly log. Similarly, Linda’s medical education was interrupted by exacerbation of her bipolar illness, which impaired her ability to meet academic and clinical responsibilities and jeopardized her friendships. Linda’s progress would be indicated by a fairly even mood (e.g., –1 to +1 on a scale ranging from –3 for depressed to +3 for manic) sustained over an agreed-upon period of time (e.g., three to six months), with fewer and less extreme fluctuations and quicker recovery times. Attending classes, fulfilling academic and clinical responsibilities in a timely manner, limiting Internet surfing, and staying connected with friends and participating in social activities also would be important indicators of Linda’s continued progress, given her particular clinical presentation and specific markers of success.

Thus, regardless of patients’ individual global outcome goals, there are many ways to monitor progress. Any progress monitoring must include regular check-ins with patients to collaboratively assess how therapy is going and ensure that goals are clear and mutually agreed upon. It can be helpful to list therapy goals on the front page of each patient’s chart, both to keep them in mind and to track how goals might change as treatment progresses. We periodically ask patients how they are different relative to when they started therapy, focusing on changes in behavior, skills, coping style, and overall functioning as they move toward goals. Whatever methods are chosen, tracking patients’ movement toward measurable goals, addressing slowed or stalled progress, and collaboratively brainstorming potential solutions will increase the likelihood of successful outcomes.

### Tracking Progress Toward Mechanism Change Goals

Mechanism change is the gateway to achieving global outcome goals. More importantly, once TDMs are identified and understood, patients have critical knowledge for tackling future problems and pursuing lifelong change well after therapy has ended. Helping patients become more mindful of vulnerability and response mechanisms allows them to learn and practice new, more effective
responses that will improve coping and enhance overall living. Tracking progress toward mechanism change goals is crucial to understanding and refining TDM hypotheses and selecting interventions to help patients advance toward desired therapy outcomes.

As with global outcome goals, there are many ways to monitor progress, and choosing among them depends on the patient-specific markers identified for mechanism change goals. Numerous mechanism measures are available to track changes in specific constructs, and we encourage you to consider using standardized instruments, including as a way to double-check idiographic measures of TDM change. Observing patients’ behavior both in and out of session also provides valuable information about mechanisms and can help explain stalled progress. For example, much like a person who keeps climbing a ladder until he pauses to look down and see how high he has climbed, patients sometimes become fearful of their own progress—especially when they become more aware of it—which may result in not completing homework, disengaging from interventions, missing sessions, or other impediments to forward momentum. While these types of responses warrant investigation and resolution, treatment plateaus create an opportunity to explore underlying mechanisms, such as fearing the uncertainty of what a successful life will look like or worrying about the consequences of beginning to speak up for oneself. As with all new information that arises throughout therapy, what the therapist and patient learn is incorporated into the formulation and treatment plan, such as including interventions to boost confidence and self-esteem. We highlight several methods of tracking mechanism change below, and we encourage you to be creative in developing and choosing strategies that are best suited to your patients.

**TDM Tracking Tools**

Mechanism measures are helpful for tracking progress toward mechanism change goals and offer the benefit of being standardized assessment instruments. Variations of positive data logs also are excellent tracking tools and may be used across problems to create personalized accounts of steps toward mechanism change. Moreover, accruing evidence of accomplishments allows patients to take ownership of (and perhaps pride in) changing both vulnerabilities (e.g., negative self-schemas) and ineffective responses (e.g., emotional avoidance). For example, in OCD treatments, where the goal is to change how patients respond to certain thoughts or images (versus trying to stop them), the therapist might have a patient log examples of turning toward thoughts and
images, instead of trying to avoid them or using compulsions to relieve distress. Similar benefits would apply to monitoring acceptance-based responses to panic, where the goal is not to eliminate panic sensations, but rather to respond to these sensations differently—with acceptance—and decrease escape and avoidance behaviors. Positive data logs also can help depressed patients monitor efforts to increase behavioral activation (e.g., “I got out of bed to take my kids trick-or-treating”) or reduce self-critical thoughts associated with negative schemas to create a more positive and balanced sense of self (Forster et al., 2008). Diary cards may be used to track success in replacing self-harm behaviors with more effective coping skills, which can reduce patients’ vulnerability to emotion dysregulation and decrease suffering (Linehan, 1993a). Thus, there are many ways to gather observable data about desired changes in the mechanisms underlying patients’ problems.

Various tools that have been used for decades by therapists also track mechanism change and record progress. For example, thought records help patients observe and change their responses to maladaptive thoughts, negative schemas, and ineffective behaviors (A. T. Beck et al., 1979; J. S. Beck, 2011). Exposure hierarchies provide opportunities to track patients’ efforts in facing different feared situations and reducing avoidance and safety behaviors. Weekly homework reviews provide detailed accounts of how patients are progressing toward changing identified TDMs and whether interventions are working. Similarly, our Progress Note template allows therapists to monitor which goals are being addressed in each session and track patients’ responses to interventions throughout therapy. We encourage you to be innovative in discussing and developing TDM tracking and progress monitoring forms optimized for individual patients. Rapidly advancing smartphone technology has yielded numerous apps that can improve progress monitoring in real time—a noteworthy consideration, since most patients do not carry paper-and-pencil forms with them throughout the day.

**What to Do When Goals Are Not Being Achieved**

When goals are not being met, it is important to explore this with patients and brainstorm potential explanations for what might be slowing or stalling progress. There are many variables to consider, including problems encountered in previous treatments, current responses to interventions, observed impediments, and shifts in patients’ affect, demeanor, and motivation.
Essentially, any information that is generated about the patient is investigated in relation to the current TDM formulation to guide the therapist in modifying treatment. This may result in repairing a ruptured treatment alliance (e.g., the therapist inadvertently hurting the patient’s feelings), increasing social support to cope with a recent stressor (e.g., an alcoholic spouse relapsing), or augmenting skills and seeking a medication evaluation to stabilize mood and functioning (e.g., a bipolar patient destabilizing). Early and continued discussion of problems that interfere with goal achievement can be instrumental in reducing the self-critical thoughts and feelings of hopelessness and demoralization that patients often experience when progress stalls.

Occasionally, individuals experience lapses in motivation or willingness to engage in therapy, sometimes after considerable progress has been made. As noted above, this may reflect patients’ discomfort with novel (or long-absent) experiences of success, perhaps because they fear not being able to sustain success or meet the expectations that often accompany it (e.g., getting and keeping a job, building relationships, no longer avoiding uncomfortable situations). Validating these fears while identifying patients’ strengths and cheering them on can be effective in resuming progress. Motivation and willingness may also fade when patients are faced with increased challenges in treatment, such as with exposure-based interventions, or simply because interventions are not suited to a particular patient’s needs. Sometimes shifting to different interventions can help patients resume progress, though individuals who have been in treatment for a long time may feel emotionally and physically exhausted and less motivated to continue therapy. Utilizing values-based interventions, discussing advantages and disadvantages of either moving forward or taking a temporary break from therapy, reviewing progress to date, and potentially revising goals can all be useful strategies to get treatment moving again or help patients feel good about pausing therapy and perhaps resuming at a later date.

When patients are struggling with treatment itself, it is important for therapists to review expectations and recognize that their vision of what patients can accomplish at any given point in time may not reflect patients’ expectations or capabilities. For example, some individuals can easily move into homework practices of skills learned in session, whereas others need more coaching and preparation to complete assignments. Similarly, some patients require extensive help in building emotion regulation, distress tolerance, and grounding skills before they can engage in certain interventions (e.g., exposure for PTSD). Clinicians must continually check with patients about what they feel capable of and what they need—throughout therapy—bearing in mind that patients do not progress at the same rate, and that progress for an individual
patient may vary at different points in time. Staying mindful of individuals’ desires, capabilities, and limitations allows therapists to stay firmly rooted in the TDM formulation, and also tempers the fervor to help people “get better” with awareness of what patients actually want and can accomplish.

**Determining Whether Different TDMs Are in Play**

As discussed throughout this book, mechanisms are the driving force in transdiagnostic case formulation and treatment planning. Identification of mechanism hypotheses is empirically driven, which means that at any point the data may suggest that different TDMs are responsible for patients’ problems. While this initially may seem disconcerting, it reflects the evolving nature of treatment. People are not static entities, and an emphasis on collaborative empiricism, openness, and curiosity allows therapists to approach treatment with a commitment to ongoing learning in the service of doing what works, versus being “right.” Thus, if a therapist learns that her original formulation is not accurate or complete (e.g., previously identified TDMs don’t seem to be in play and additional TDMs are gaining support to explain problems), this additional information can help her further refine the formulation and treatment plan.

Clinicians often are alerted to the possibility of different mechanism hypotheses when patients are not responding to recommended interventions. For example, Ann sought treatment for panic attacks that occurred primarily in her workplace. The formulation specified that Ann became fearful of panic sensations and had catastrophic beliefs about the consequences of physiological sensations and experiencing anxiety. Ann, who is conscientious and always strives to do well, had recently experienced increases in her workload, requiring her to work longer hours. These increased work demands appeared to be a possible trigger of her panic symptoms. Fueled by her desire to look professional and her catastrophic fear of panic sensations and their consequences, Ann typically tried to avoid feeling anxious. Initial interventions targeted the goal of changing how Ann thought about and responded to panic sensations and included psychoeducation, cognitive restructuring, developing acceptance-based responses to sensations, engaging in interoceptive exposure, and reducing safety seeking and other avoidance behaviors. Yet despite Ann’s high level of motivation and engagement in treatment, she had a hard time accepting panic sensations and continued to fear feeling anxious. The therapist discussed
this with Ann and gently explored alternative mechanism hypotheses that might explain why she was struggling in this area. The therapist was surprised to learn that Ann had been assaulted and robbed at her previous job! Ann had never mentioned this critical aspect of her history to the therapist because she never thought of herself as being traumatized (and thus never sought treatment after the assault). She did not think it was relevant to her current problem, and simply wanted to get help eliminating the panic attacks.

The formulation was modified to include activation of trauma memories whenever Ann had to work late at the office by herself, triggering heightened fear, dissociation, and panic. Armed with this new knowledge, the therapist still targeted Ann’s panic symptoms but now conceptualized them in the context of PTSD. The focus of treatment shifted to include emotional and cognitive avoidance and neurophysiological vulnerabilities related to emotion regulation and information processing, storage, and retrieval. Ann’s negative beliefs about herself (I’m weak and can’t take care of myself), self-critical thoughts (I feel like such a screwup), and threat misappraisals (If I’m alone, people will attack me) also were targeted, which helped her be more assertive in asking her supervisor for a more structured work schedule and allowed her to recognize that she was not necessarily in danger whenever she had to work late.

**Responding to Patient Feedback**

While collaborating with patients is essential throughout therapy, including in problem assessment, development of therapy goals and TDM hypotheses, and selecting interventions to ensure successful outcomes, it is equally important to seek feedback about how patients are experiencing treatment and the therapist’s approach to working with them. In addition to strengthening the therapeutic alliance, seeking feedback from patients about the clarity and accuracy of the formulation and the selection and perceived benefit of interventions underscores patients’ role as equal partners and creates an atmosphere of respect and validation, which in itself is therapeutic (Linehan, 1993a). And as seen in the above example of Ann, patient feedback frequently provides clues about possible TDMs that may not have been considered previously.

Feedback may be sought informally by asking questions about a particular idea, intervention, or interaction, or therapists may have patients complete a structured questionnaire at the end of each session, which then may be reviewed at the outset of subsequent sessions. Many forms are available (some of which are free of charge on the Internet), and they typically include
questions about the therapeutic relationship and patient functioning (e.g., Outcome and Session Rating Scales; Duncan & Miller, 2008). We often use the Session Assignment and Feedback Form (Hong et al., 2011), a multipurpose form that includes a log of homework assignments and whether they were helpful, key learning points from the session, questions about the quality of the session and the therapeutic alliance, and agenda items for the next session.

Returning to Ann, we illustrate how monitoring progress and soliciting feedback about stalled progress can be used to modify the formulation and treatment plan. In this dialogue, the therapist explores why treatment has not been effective and, in the process, learns about Ann’s earlier experience of being mugged.

**Therapist:** (Speaks in an easy manner so Ann doesn’t feel criticized.) Before we begin today, I want to discuss how you think the therapy’s going.

**Ann:** (Looks a bit discouraged.) I’m beginning to think there’s something wrong with me because you said this was going to help me feel less panicked, but I’m still having the attacks.

**Therapist:** (Validates Ann’s experience and clarifies the formulation and treatment goals.) It sounds like you’re focusing on not having panic attacks as a sign of whether you’re making progress, so it makes sense that you’re feeling discouraged. Remember when we were talking about the mechanisms that seem to be driving your symptoms, and we discussed the goal of accepting the panic sensations versus trying to avoid them? I can appreciate how hard that is to do—especially because of how scary they are and how they lead to catastrophic beliefs about what will happen next.

**Ann:** Yeah, it’s very scary! I’m trying really hard, though, and doing all the homework to keep practicing between sessions. (Throws her hands up.) I don’t understand why it’s not working.

**Therapist:** (Leans forward.) I know you’re trying really hard, Ann, and it certainly feels discouraging when something doesn’t work as we had hoped. Let’s keep in mind that our goal is to help you accept and cope more effectively with the panic sensations, as opposed to getting rid of them. If we work on that, I’m pretty confident that you will feel better. (Provides reassurance to counter Ann's hopelessness.)

**Ann:** That all sounds great, but I’m still afraid of the sensations. I tell myself that I should accept them, but I just can’t do it.
Therapist: *(Leans forward to convey compassion and nonjudgment.)* That’s really important, Ann. Let’s try to let go of those “shoulds” and see if we can figure out what’s going on.

Ann: Well, whenever I start to panic, I don’t think it’s my heart rate or breathing that freaks me out. I actually feel pretty disconnected from my body during the attacks.

Therapist: *(Seeks more information to reassess the accuracy of the current formulation.)* That’s interesting, Ann. What do you mean?

Ann: Usually I notice some sound, like the floor creaking or the elevator running, and then I start feeling afraid that someone is in the office with me and I’m going to get mugged again. And then I just sort of space out and lose track of everything.

Therapist: *(Notes cognitive misappraisals and responds to new information.)* Wait, you never mentioned being mugged. When did that happen?

Ann: *(Looks embarrassed.)* It happened a long time ago, at my other job. Fortunately, I wasn’t badly hurt because I gave the guy everything I had on me. I just tried to put it behind me, but it’s been coming up lately. I feel kind of silly talking about it. It makes me seem so weak. *(Therapist notes cognitive avoidance and considers the possibility of negative self-schemas and internalizing attributional bias.)*

Therapist: I’m really sorry that happened to you, Ann, and I’m really glad you weren’t badly hurt. I’m wondering, does this fear response happen in other situations? *(Redefines Ann’s symptoms as fear-based.)*

Ann: Only if I’m by myself. Sometimes I can even see the guy again in my mind. That’s why I try so hard not to think about it. But it just keeps coming back. *(Looks demoralized.)*

Therapist: *(Validates Ann’s experience and explains a new TDM.)* That makes a lot of sense, Ann, and I certainly understand not wanting to think about the attack in any way. While it may help you feel better in the moment, trying to get rid of thoughts actually increases them. It’s called thought suppression, and it’s a common way to cope with a traumatic event—which is what happened to you. *(Begins to revise the formulation.)*

Ann: Yeah, I just can’t get those images of the attack out of my head, but I don’t see the point of thinking about something that’s in the
past. It just makes me more upset, and then I get frustrated because it seems like I should be over it by now, so I try even harder to block it out. I’m also spacing out and getting behind in my work.

Therapist: (Validates Ann’s coping response.) I totally understand not wanting to think about something so painful. You’ve mentioned spacing out a couple times. What do you mean? (Wants to be sure she understands Ann’s comments so she can accurately assess the symptoms.)

Ann: I just get lost in my head sometimes. I forget things and get really confused, especially if something comes up that reminds me of the attack. It’s kind of like I’m not even there. I feel crazy. (Looks down and away.)

Therapist: You’re not crazy, Ann, though I can appreciate how upsetting it is. (Responds to Ann’s body language.) What you’re describing is called dissociation, and it’s another one of those mechanisms we talked about. It’s a way of coping with painful emotions. (Notes emotional avoidance and deficits in emotion regulation and information processing, storage, and retrieval as TDMs.) I can see why the exposure we’ve been doing hasn’t helped you.

Ann: (Speaks softly, only barely audible.) I feel like such a screwup. I can’t do anything right.

Therapist: (Notes Ann’s negative self-schema and self-critical style.) Wow, Ann, I’m really struck by how often you criticize yourself. I’m very sorry if I said anything to make you think I see you as a screwup. (Considers the possibility that Ann’s self-criticism may be a response to the current discussion and immediately apologizes to protect and strengthen the therapeutic alliance.)

Ann: It’s not you. I just want to feel better and not seem so weak and vulnerable.

Therapist: (Introduces negative self-schema and internalizing attributional bias as potential TDMs.) Many people who have been through a traumatic event start to feel bad about themselves, like they’re screwups, or they see themselves as weak and vulnerable. We can work on that. (Continues to explain the modified formulation.) I think what’s happening is that memories of the attack are getting triggered by normal things in your environment, like the elevator and creaking
floor, and then it feels like you're right back in that time with all of the thoughts, images, and feelings you experienced during the mugging. Then you have a high fear response, with shortness of breath and pounding heartbeats—which are the panic attacks you experience—and you space out sometimes. (Leans forward and speaks gently.) I think you might have PTSD, Ann, which is why our panic disorder treatment isn't helping you.

Ann: (Sits up, with interest.) I've heard about PTSD because of all the vets who have it.

Therapist: PTSD is pretty common these days because of the war, but you don't have to be in combat to get it. Many people who have been in an accident or have been abused, or who have been mugged, like you, can develop it. The good news is, there are effective treatments for it. (Reinforces Ann's feedback.) I want to thank you for letting me know how the treatment wasn't helping you. That couldn't have been easy, given how hard you are on yourself. I appreciate your willingness to share it with me. This new information puts us in a really strong position to help you now.

At this point, Ann and her therapist can begin discussing the new treatment plan, including revised goals, which TDMs to target first, and which interventions they will choose.

Targeting New Problems

Even when a TDM formulation is accurate and treatment is progressing smoothly, new problems can arise, either circumstantially or idiopathically, that pose challenges for the therapist. For example, a patient may lose his job, housing, or primary relationship, which can derail treatment of the original presenting problem because of the need to resolve logistical concerns (e.g., needing to find a new job or place to live or managing sudden child care responsibilities and legal costs associated with a divorce). Major life shocks often necessitate a change in the structure of therapy (e.g., reducing session frequency to save money after getting laid off). Even in the absence of a major life stressor, depression, anxiety, or other symptoms can manifest anew or reappear following stable periods, potentially interrupting the patient’s functioning.
and ability to participate effectively in treatment (e.g., starting to abuse alcohol as self-medication for depression or anxiety).

Regardless of origin or type, new problems are targeted in the same way as presenting problems. Therapists assess and discuss them with patients, assuming a curious, nonjudgmental, and collaborative approach to identifying TDMs and determining potential associations with current problems, such as marital discord related to OCD symptoms, or being fired because of an inability to get to work during a transit strike due to fears of driving across bridges. Ann’s vignette demonstrates how more in-depth understanding of shared symptoms (panic attacks) across different disorders (panic disorder and PTSD) can provide important clues about the accuracy of existing mechanism hypotheses and lead to revising the formulation and treatment plan.

The manifestation of new problems does not necessarily mean the formulation is inaccurate or the treatment plan is ineffective. Occasionally, therapists encounter patients who are making steady progress on accurately conceptualized presenting problems and subsequently show signs of new problems that must be incorporated into the existing formulation and treatment plan. As an example, we will consider Corey, a seventeen-year-old honors student being treated effectively with CBT and stimulant medication for disorganization, distractibility, and occasional irritability. He began experiencing a worsening of symptoms accompanied by truancy, a reduced need for sleep, and an announcement to his parents that he was going to quit school to start a video game software company. Corey previously had not been especially interested in video games and aspired to be a chemical engineer. The therapist recalled that Corey’s paternal grandfather had been described as eccentric and was hospitalized several times for “nervous breakdowns.” Corey’s father reported frequent bouts of depression and was taking prescribed antidepressant medication. After further assessment, the therapist determined that Corey probably was experiencing a manic episode. While Corey did have ADHD, the formulation and treatment plan was amended to include the recent manifestation of a bipolar spectrum condition. The transdiagnostic road map allowed the therapist to do so with relative ease, using TDMs to frame Corey’s new problem in the context of predisposing vulnerabilities (e.g., emotion regulation deficits, genetic risk factors) and coping responses (e.g., emotion-driven behaviors). Along with psychoeducation, this helped Corey and his family start coming to grips with the long-term nature of bipolar illness while also motivating them to work together to manage his symptoms, reduce risks to his mood stability, and help him have a more normative and fulfilling adolescent experience.
Deciding When and How to End Treatment

As with all decisions regarding treatment, termination is discussed collaboratively with patients. Discharge planning begins at intake with the discussion of treatment goals, including desired outcomes and the mechanisms that must change to achieve them. Successful termination is the overarching goal, and each patient’s definition of success is unique. Many individuals want to know how long therapy will take to produce results, which provides therapists with a rich opportunity to emphasize the importance of patients’ ongoing collaboration and active participation. As treatment advances, therapists consider both process objectives (e.g., mechanisms of change) and outcome objectives (e.g., goal attainment) in assessing the appropriateness and timing of termination. Whereas achievement of therapy goals is the desired outcome, other variables, such as a job transfer to another state or an irreparable rupture of the treatment alliance, often necessitate unplanned termination of treatment.

Achievement of Therapy Goals

Successful termination is defined by achievement of both global outcome and mechanism change goals. Thus, Tom will be ready for termination when he is able to reduce repetitive negative thinking, resolve erroneous metacognitive beliefs about worry, and decrease use of avoidance strategies (e.g., thought suppression) and escape behaviors to manage his anxiety; and when he can become more actively engaged in activities, which will reduce his depression. Other markers will be the development of new responses to uncertainty, reduced fears of negative evaluation by others, and more positive and balanced schemas. Presumably, all of these changes will help Tom face future decisions with greater ease and sustain a more balanced sense of himself in the wake of others’ real or imagined criticism. As Tom makes progress and moves toward successful termination, he and his therapist will discuss future triggers so they can brainstorm and role-play potential strategies to reduce the risk of relapse and prevent future episodes of anxiety and depression.

Linda and her therapist will know they are nearing successful termination of therapy when Linda experiences sustained mood stability, consistently practices self-regulation techniques (sleep hygiene, balanced nutrition, physical exercise), and can accurately detect and successfully resolve potential red flags.
of mood instability. All of this would reflect progress in accepting and managing her chronic condition, which likely would help her reduce self-critical thoughts and develop a more positive self-schema. Sustained improvements in academic and social functioning would be indicated by completion of class and clinic assignments, seeking support from friends, and turning toward emotional states rather than avoiding them. While Linda might meet all of her goals, she and her therapist may decide to continue meeting bimonthly or quarterly to ensure ongoing progress and reduce relapse risks, given the chronicity of bipolar disorder.

Patients’ goals may shift throughout therapy, either because the original goals are not attainable or because patients’ needs and desired objectives can change. The road map’s flexibility allows therapists to deftly shift direction to accommodate virtually any changes in patient needs and goals. For example, Sharon wanted to become an attorney but became depressed and had difficulty keeping up with her law school coursework after her husband requested a separation. The focus of treatment shifted from her original problem of anxiety about test taking and public speaking to identifying and targeting the mechanisms responsible for her depression. Sharon also wanted help negotiating a leave of absence from law school so she could focus on getting through the separation and preserve her option to resume her education in the future. Since Sharon’s original problems remain unresolved, they likely will be an important focus of treatment again when she returns to law school.

Similarly, Sam pursued therapy for PTSD following his combat tour in Afghanistan. Although he was making progress with in vivo exposure, he decided to not proceed with imaginal exposure because the family’s nanny quit, requiring Sam to help with child care while his wife continued working to support the family. The therapist and Sam recognized that his current life circumstances necessitated a temporary pause in the exposure work until Sam’s home situation stabilized and he could devote more time to his therapy. The treatment plan was modified to emphasize acceptance-based strategies and distress tolerance skills to help Sam manage his symptoms, and included organization, planning, and time management strategies to better deal with his increased child care responsibilities.

Progress monitoring informs discussions about how patients’ lives are changing as they move through treatment, allows for any necessary modifications to the treatment plan, and guides decisions about patients’ readiness for termination. As patients’ functioning improves and they feel increasingly better, therapists can begin the collaborative discussion about ending therapy, and together, therapist and patient can jointly reach a decision about when
this will occur. Part of preparing individuals for termination is repeatedly emphasizing that achieving and sustaining positive outcomes depends on practicing the skills learned in therapy—frequently and across situations. Therapists can enhance patients’ motivation to do this by encouraging them to become proficient in acting as their own therapists while also validating the many challenges inherent in doing so. Patients will know they are succeeding in reaching this goal as they begin to adopt a curious and compassionate stance toward their problems and obstacles, and as they become increasingly skillful and effective in coping with life’s difficulties.

Referring Patients Out

While every therapist strives to end treatment successfully for each patient—by mutual decision and when goals are achieved—that is not always possible. Patients occasionally drop out, possibly without warning and with no explanation. Sometimes interventions do not work, no matter what the therapist tries. Occasionally, the therapist has unrealistic or excessive expectations for a patient, resulting in mutual frustration and stalled progress. And on occasion the therapy relationship suffers an irreparable rupture. Seeking consultation may yield useful information to help therapy move forward, though this is not always the outcome. When impasses are reached, the therapist should make reasonable attempts to discuss referral options with patients, helping to facilitate the transition to another clinician if the patient is interested in doing so.

Initiating a discussion to explore and understand why treatment is not working is the first step in attempting to resolve potential impediments to patient progress. If patients drop out, we recommend that therapists make standard efforts (phone, e-mail, letter) to contact them and invite a discussion (preferably in person) of what prompted the termination. If such a discussion happens, the therapist can explore whether the issue can be resolved (e.g., clarifying and apologizing for an inadvertently offensive miscommunication in session), and provide closure and referral options if the patient chooses to leave therapy. Regardless of the patient’s decision, the therapist might gain valuable insights from the conversation that could prevent future treatment disruptions for other patients (e.g., learning to check back with patients more frequently after difficult discussions in session, being more judicious about using irreverent communication with patients).

Sometimes, even when therapists exert their best efforts in attempting to understand and resolve stalled progress, including reassessment and revision of
Assessing Progress, Changing Course, and Ending Treatment

the formulation and treatment plan, certain patients remain stuck. Talking with a trusted and proficient colleague to gain a fresh perspective on the problem and get help brainstorming potential solutions is important in trying to resolve such impasses and preventing similar issues in the future. It also can be quite helpful to arrange for the patient to have a consultation with another therapist (e.g., an expert in treating the patient’s problems, or a psychiatrist if medication might be indicated). It sometimes is beneficial or even necessary to refer the patient to a clinician who offers a different treatment approach. We often receive referrals from therapists whose patients have not made progress in their existing therapy and might benefit from a different type of treatment (e.g., a bipolar patient being referred for CBT by her psychoanalyst). It also is appropriate to refer to other clinicians who have different and perhaps more suitable training or skills that better match the patient’s needs, such as referring a patient with hair-pulling problems to a therapist who has expertise in treating body-focused repetitive behaviors.

Invariably, when patients no longer are progressing toward goals, it is the therapist’s ethical responsibility to appropriately end treatment (American Psychological Association, 2010). More importantly, perhaps, continuing in treatment that is not working creates the illusion that the patient actually cannot get better—which often is how patients feel, and may not be true. This can be particularly difficult if a patient has achieved significant gains and then stops advancing toward goals or reverts to previous ineffective behaviors, which might easily lead to frustration and demoralization for both patient and therapist. If this seems related to diminished motivation, then motivational interviewing techniques and Socratic questioning can yield potential strategies to help the patient resume forward progress. However, sometimes individuals reach a limit in the current treatment, perhaps because life circumstances have changed, bringing new stressors that challenge their functional capacity and shift priorities away from therapy. Or a person may have exhausted the benefits of working with the current therapist, despite a seemingly positive working relationship. Reviewing the treatment trajectory, discussing benefits and disappointments regarding the current therapy, and identifying remaining goals should the patient decide to pursue treatment with another therapist are important aspects of these endings. Helping patients recognize whatever progress they achieved and verbalizing any enjoyable aspects of working with them can instill a sense of pride and accomplishment and, depending on the individual and circumstances surrounding the referral, reduce the potential for such patients perceiving that they have “failed” therapy. In all cases, it is important to help patients understand why therapy cannot continue and to
emphasize that they have the potential to improve despite the therapist’s inability to help.

The Road Forward

We have described many merits of the transdiagnostic road map in expanding therapists’ clinical armamentarium beyond the limits of available evidence-based treatment options. By deconstructing presenting problems, targeting specific underlying transdiagnostic mechanisms, selecting and prioritizing treatment goals and interventions, and taking into account multiple factors related to each patient’s situation, clinicians have effective tools to address a wide range of patient problems and change the course of treatment as needed. What is especially advantageous about using this approach is that it offers therapists the opportunity to teach patients about the underlying mechanisms contributing to and maintaining their problems—and about how to continue addressing those and other problems throughout life, long after therapy ends. Although patients may seek additional treatment or follow-up sessions if they encounter new problems or future obstacles, at the conclusion of therapy they are armed with invaluable knowledge about their vulnerabilities and how they respond to them, effective strategies for tackling them, and many skills to help them navigate the road forward.

Whether the focus of treatment is on singular psychological disorders, complex conditions and psychiatric comorbidities, or simply functional problems in daily living, the transdiagnostic road map will guide your journey with patients as you help them achieve their goals and improve their lives. It also will guide you in developing and honing your clinical acumen and technical skills and integrating the growing body of research about potential mechanisms when conceptualizing patients’ problems and mapping a course to target and treat them. As more research unfolds illuminating the key role of transdiagnostic mechanisms in the etiology and maintenance of psychological problems, the ability of therapists to find new and better ways to address and resolve those problems will continue to expand.
Feel free to reproduce the worksheets in this appendix for use in your practice. They are also available in standard, 8½ x 11 format; visit http://www.newharbinger.com/28951 to download them. Instructions for download can be found on the very last page of this book.
Problem Deconstruction Log

Name: ______________________________________ Date: ______

Problematic situation: Please specify who, what, when, and where.

Thoughts: What were you thinking at the time? Any images?

Emotions: What emotions did you feel at the time?

Physical sensations: Did you notice anything in your body?

Behaviors: What did you do?

Observations: Please indicate anything that stands out for you.
**TDM Hypotheses Worksheet**

Name: ___________________________ Date: _______

Diagnostic considerations (based on intake forms, interview, initial measures)

Observations (by therapist, patient, family or others)

Hypothesized mechanisms based on specific examples of presenting problems (from Problem Deconstruction Logs, thought records, chain analyses, intake data, etc.)

Mechanism measures (to confirm, disconfirm, or further understand components of TDM hypotheses)
TDM Formulation Worksheet

Name: ________________________________ Date: ______

Identified problems

Hypothesized mechanisms (from the TDM Hypotheses Worksheet)

Narrative or diagrams of how the mechanisms fit together and explain patient problems

Factors that could worsen problems or impede treatment

Patient strengths and resources that could support and facilitate treatment
**Treatment Goals Worksheet**

Name: _______________________________ Date: _______

Global outcome goals and markers of change (What will life look like if treatment is successful?)

Mechanism change goals and markers of change (What needs to change?)

Motivation and readiness for change (Where is the patient on the continuum of readiness for change? Be sure to address concerns about general changes and concerns about mechanism changes.)

Prioritization of global outcome and mechanism change goals (e.g., life-threatening and other immediate concerns, facilitating treatment of other problems, patient preferences, etc.)
Progress Note

Patient name: __________________ Date: ______ Session #: ______

Others present: ☐ No ☐ Yes Who: _____________________________

Measures and scores:

CPT (billing) Code and service description:

Mental status (mood, affect, thinking, judgment, appearance):
☐ Within normal limits Note any comments or changes:

Emergent or important events:

Homework follow-up:

Focus of session: Treatment goals and mechanisms targeted
Interventions Used or Reviewed in Session

Enhance understanding and motivation for change

☐ Psychoeducation
☐ Conversation about ambivalence and motivation to change
☐ Cost-benefit analysis
☐ Identifying values
☐ Other: __________________________________________

Core strategies for change

☐ Behavioral activation
☐ Behavioral contingencies
☐ Cognitive restructuring
☐ Schema change
☐ Behavioral experiments
☐ Attention training techniques
☐ Situational attention retraining
☐ Postponement strategies
☐ Exposure (behavioral, cognitive, emotional, and interoceptive)
☐ Compassionate mind training and imagery rescripting
☐ Distress tolerance skills
☐ Emotion regulation skills
☐ Interpersonal effectiveness skills
☐ Other: __________________________________________

Facilitate stepping back from problems

☐ Problem deconstruction and analysis
☐ Self-monitoring
☐ Mindfulness
☐ Detached mindfulness
☐ Acceptance and validation
☐ Cognitive defusion
☐ Other: __________________________________________
Skill development

☐ Breathing retraining
☐ Progressive muscle relaxation
☐ Applied relaxation
☐ Guided imagery
☐ Anger management
☐ Problem solving
☐ Organization and planning
☐ Time management
☐ Sleep management
☐ Strategies for eating problems
☐ Strategies for body-focused repetitive behaviors
☐ Other: __________________________________

Discuss or follow up on adjunctive treatment components

☐ Medication and medication compliance
☐ Coordination with other providers
☐ Support groups or educational groups
☐ Other: __________________________________

Indicate any changes to the TDM formulation or treatment plan:

Homework plan:

Next session (date/day/time): ______________________________

Therapist signature: ____________ Date: ________________
References


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—FRANK M. DATILLO, PhD, ABPP, Harvard Medical School, Boston, MA

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