RADICALLY OPEN

DIALECTICAL BEHAVIOR THERAPY

THEORY *and* PRACTICE *for* TREATING

DISORDERS *of* OVERCONTROL

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Acknowledgments

This work could not have been accomplished without a tribe. I would like to begin by thanking our patients for their willingness to share their personal struggles and insights—they have been my teachers and the *raison d'être* behind it all.

However, without doubt, I am most grateful for the tremendous amount of support, energy, and intellectual contributions made by my wife, best friend, and colleague Erica Smith-Lynch. Without her insight into human nature and willingness to question existing paradigms (most often those I held dearly), much of what is written would not exist. Erica helped develop and refine the core philosophical premises underlying the treatment and was seminal in the development of novel therapist training methods, as well as new RO skills. Erica is *the rock* of RO DBT.

I am also indebted to Roelie Hempel, who has been our research lab's senior scientist and associate director for the past 10 years. Her basic science background in psychophysiology, her analytic brain, and her keen curiosity have been essential in our mechanisms of change research. She was the clinical trial manager for our MRC funded multi-center randomized controlled trial and primary driver behind most of our bio-behavioral and experimental research (and that's just before breakfast). Roelie is the *roll* to Erica's *rock*.

Importantly, this work would also not be same without the time invested and gentle challenges made by Lee Anna Clark in helping refine and strengthen the neuroregulatory model that underlies the treatment—e.g. insights regarding optimal self-regulation, the importance of accounting for bio-temperament, and the utility of undercontrol and overcontrol as multi-dimensional constructs. Finally, when it comes to core contributors, I am grateful for the wide range of intellectual and instrumental contributions made by Jennifer S. Cheavens during the early years of treatment development at Duke University—e.g., help with the development of new skills linked to openness, flexibility, and forgiveness.

In addition, I have been very fortunate to have been mentored by a number of exceptional clinical academic researchers—five of whom I consider most influential in the development of RO DBT. First, I learned most of what I know about radical behaviorism from Alan Fruzzetti—my PhD advisor at Kent State University. Alan introduced me to Marsha Linehan, who trained me in standard DBT, and I was grateful when she also began collaborating with me in research—resulting in the first multi-site RCT of standard DBT funded by NIDA (PIs: Linehan, UW; Lynch, Duke). While this was going on, I was simultaneously running several other funded studies, including an NIMH K23 career development award that afforded me the opportunity

of meeting and learning from two prominent psychiatric researchers—Ranga Krishnan and Chip Reynolds. Ranga was the Chair of the Department of Psychiatry Department at Duke University Medical Center and a world-leading depression researcher. It would be impossible for me to outline all the ways Ranga encouraged, advised, and supported me during my tenure at Duke. He invited me to be part of a number of large-scale initiatives including the NIMH funded Conte Neuroscience Center as a co-investigator, which is where I met Kevin LaBar and Greg McCarthy and started to work on models of depression that integrated brain and behavioral science. It was also during this time that I met my other primary mentor for my NIMH K23 award—Charles (Chip) F. Reynolds—a world-leading clinical trial and depression researcher who was located at the University of Pittsburgh's Western Psychiatric Institute. Chip somehow seemed to recognize something useful in me, because he spent an enormous amount of his valuable time helping me refine my grant submissions and articles, including a visit to my clinic and lab at Duke accompanied by my NIMH program officer. One of the things I admire most about Ranga and Chip was how they managed their research teams and collaborations—always with humility and openness to differing points of view.

I am also grateful to a number of key influencers who have contributed in smaller yet powerful ways to RO DBT over the years. For starters, Sophie Rushbrook was pivotal in helping me formulate the final version of the skills manual and improving our methods of training and supervision. Our dissemination work has become vastly more sophisticated under the leadership of R. Trent Codd III and Jason Luoma. Plus, I am also enormously grateful to Jackie Persons for her perspicacious read of earlier versions of this book and encouragement to "find my voice" when describing RO DBT rather than comparing it to others. Plus, the clinical observations and insights made by Christine Dunkley during the initial phases of our multi-site RCT were seminal in helping me refine a number of key concepts and treatment targets. During the early treatment development years, one of the most important influencers was Clive Robins. Clive was my primary clinical supervisor and research mentor during my clinical internship and postdoctoral training at Duke University. He was the yang to my yin—encouraging yet critical and challenging of my novel ideas. Similarly, the supportive yet oftentimes challenging feedback from Martin Bohus helped me better articulate how RO DBT differed from standard DBT. Our work with eating disorders and subsequent empirical support has largely been due to the efforts and continued enthusiastic support from Eunice Chen, Mimi Simic, Martina Wolf, and Marian Titley. A special thanks to Laura Hamilton and her team who have been instrumental in applying RO DBT in forensic settings. Plus, a note of gratitude goes out to Richard Booth and his research team who have been the driving force behind novel research testing the efficacy of RO skills alone approaches. I also wish to thank Frank Keefe, who was instrumental in the development and research of the RO loving kindness meditation protocol—whereby Frank obtained grant funding that allowed us to run a randomized controlled trial testing our LKM protocol and providing the empirical basis for adopting it in RO DBT.

Key Terms

approach coping: a strategy for reducing distress by engaging directly with its source or actively attempting to solve the problem that has triggered the distress

biotemperament: genetic and biological predispositions that affect one's perception and regulation of emotions (compare *trait*)

detail-focused processing: a style of integrating sensory stimuli that is characterized by paying much more attention to the parts than to the whole ("missing the forest for the trees")

dorsal vagal complex: the branch of the vagus nerve that is evolutionarily older and associated with physiological and emotional shutdown, immobilization, and numbing of pain (compare *ventral vagal complex*)

edge: in RO DBT, a term that refers to actions, thoughts, feelings, images, or sensations that we want to avoid, feel embarrassed about, or prefer not to admit to others (see also *outing oneself*; *personal unknown*)

emotional leakage: the expression of emotion at higher intensity than one would generally feel comfortable exhibiting

flat face: a facial expression devoid of perceptible emotion

outing oneself: revealing vulnerability, fallibility, or one's personal edge to someone else in order to locate the point where one's personal growth can occur (see also *edge*; *personal unknown*)

personal unknown: the far edge of psychological growth, where learning can take place

smuggle: the RO DBT therapist's practice of introducing new information to a client by planting a seed or a small part of a new idea, without telling the entire story, so that the client has an opportunity to reflect on the information without feeling compelled to immediately accept or reject it

social safety system: neural substrate associated with feelings of contentment, relaxation, and desire to affiliate (see also *ventral vagal complex*)

social signal: any action or overt behavior, regardless of its form, its intent, or the performer's awareness, that is carried out in the presence of another person

trait: a stable pattern of behavior moderated by biology as well as by the environment (compare *biotemperament*)

turn the heat on/take the heat off: increasing or decreasing the amount of therapist attention—such as eye contact—directed toward a client in order to enhance client engagement, provide opportunities for learning, or reinforce therapeutic progress

urge-surfing: the practice of noticing but not acting on a compulsive desire or action urge, and, instead, mindfully observing the compulsion or desire as it rises, crests, and falls away—like a wave—without trying to change it

valued goal: a personal objective that has emotional significance, is aligned with one's core principles, and guides one's actions

ventral vagal complex: the branch of the vagus nerve that is evolutionarily newer and associated with feelings of safety and affiliation as well as with urges toward exploration (compare *dorsal vagal complex*)

Introduction

This book presents a new transdiagnostic treatment, *radically open dialectical behavior therapy* (RO DBT), which targets a spectrum of disorders characterized by excessive inhibitory control, or *overcontrol* (OC). It is intended for clinicians treating clients with such chronic problems as refractory depression, anorexia nervosa, and obsessive-compulsive personality disorder. Although the book can be read alone, it is best used in tandem with *The Skills Training Manual for Radically Open Dialectical Behavior Therapy: A Clinician's Guide for Treating Disorders of Overcontrol* (T. R. Lynch, 2018), referred to throughout this volume as "the skills training manual." In thirty lessons, the skills training manual presents twenty skills of radical openness (RO) along with class exercises, user-friendly handouts and worksheets, and detailed notes for instructors.

Radical openness, the concept at the foundation of RO DBT, is a way of behaving. But it is also a state of mind informed by the central premise that emotional well-being involves the confluence of three features: *openness*, *flexibility*, and *social connectedness*. As a state of mind, radically open living involves actively seeking our personal unknown in order to learn from an ever-changing environment. Radical openness also enhances relationships because it models humility and the willingness to learn from what the world has to offer. As such, radical openness often requires us to sacrifice our firmly held convictions and self-constructs—and this is why the practice of radical openness can be painful.

Overview of Core RO DBT Tenets

RO DBT is supported by twenty years of clinical experience and translational research that parallels established guidelines for treatment development (Rounsaville, Carroll, & Onken, 2001). As a new treatment, it is both similar and dissimilar to its predecessors.

The decision to retain the terms *dialectical* and *behavior therapy* in the name of this new treatment reflects the desire to acknowledge two of its fundamental roots, but the retention of these terms should not be taken to mean that they represent RO DBT's only roots. Also influential in RO DBT's development has been a wide range of philosophical, etiological, and treatment models and approaches, most notably dialectical philosophy and dialectical behavior therapy, mindfulness-based approaches, cognitive behavioral therapy, Gestalt therapy, motivational interviewing, basic

emotion theory, affective neuroscience, personality and developmental theories, evolutionary theory, and Malâmati Sufism.

The core tenets of RO DBT are as follows:

- We are tribal by nature. The survival of our species required us to develop our capacities to form long-lasting social bonds, share valuable resources, and work together in tribes or groups.

- Psychological well-being involves the confluence of three factors: openness (receptivity), flexibility, and social connectedness. The term *radical openness* represents the confluence of these three capacities, and radical openness itself is the core philosophical principle and core skill in RO DBT.

- Social signaling matters. In disorders of overcontrol, deficits in prosocial signaling are posited to be the core source of OC clients' loneliness.

- Core genotypic and phenotypic differences between groups of disorders necessitate different treatment approaches.[1]

- Overcontrol is a multifaceted paradigm involving complex transactions among biology, environment, and individual styles of coping.

- In people with disorders of overcontrol, biotemperamental deficits and excesses make behavioral responses more rigid and thus less capable of flexible adaptation to changing environmental conditions.

- It takes willpower to turn off (that is, *downregulate*) willpower!

- Radical openness assumes that we don't see things as they are but rather as we are.

- One secret of healthy living is the cultivation of healthy self-doubt.

- Radical openness and self-enquiry are experiential and cannot be grasped on an exclusively intellectual basis. Therapists need to practice radical openness themselves in order to model it for their clients.

Overview of the Book's Contents

Chapter 1 poses the question of whether there can be such a thing as too much self-control, and it describes maladaptive overcontrol as well as its association with chronic and treatment-resistant psychopathologies. The chapter then establishes RO DBT's links to older evolutionary theory and more recent basic brain/behavioral research. It concludes with an overview of completed and ongoing clinical trials testing the efficacy of RO DBT.

Chapter 2 covers the rationale and basic science supporting the neurobiological theory of OC disorders.

Chapter 3 presents a step-by-step process for diagnosing disorders of overcontrol and includes relevant measures for establishing a diagnosis.

Chapter 4 gives an overview of RO DBT's treatment structure, therapeutic stance, and global targets and includes a section on the assessment and management of suicidal behavior in OC clients.

Chapter 5 offers guidance on maximizing OC clients' engagement by addressing (1) physical and environmental factors in the treatment setting, (2) strategies and protocols for orienting clients to treatment and gaining their commitment, and (3) the timing and sequencing of interventions.

Chapter 6 provides a detailed overview of core RO DBT principles that involve social signaling. The chapter includes information about how the therapist can use nonverbal social signals during treatment sessions as a way to maximize the client's engagement and improve treatment outcomes.

Chapter 7, in addition to presenting an overview of core RO and self-enquiry principles and strategies, discusses structural protocols for integrating RO principles into supervision or consultation and offers concrete illustrations of an ongoing self-enquiry practice.

Chapter 8 gives a detailed description of RO DBT's protocols for repairing ruptures in the therapeutic alliance. The chapter also discusses strategies for preventing clients from dropping out of treatment.

Chapter 9 presents a step-by-step protocol for using OC themes to create individualized treatment targets that are linked to clients' valued goals.[2] The chapter includes a clinical example of OC theme–based targeting to illustrate how much social signaling occurs during a session and to show how the therapist can use his or her own nonverbal social signals to block the client's maladaptive behavior and enhance the client's engagement.

Chapter 10 offers detailed descriptions of how RO DBT uses dialectical thinking to guide the therapist's behavior and facilitate new ways for the therapist to behave with clients. Specifically, the chapter discusses the core dialectic in RO DBT: the juxtaposition of compassionate gravity with playful irreverence. The chapter also presents an overview of core behavioral strategies in RO DBT, including information about using informal principles of behavioral exposure and using a detailed behavioral chain analysis.

Chapter 11, with the aim of stimulating further research and dialogue, outlines some future directions and implications of radical openness, both as a therapeutic concept and as a way of being. The chapter also includes commonly asked questions that therapists can use to assess whether they are providing RO DBT–adherent treatment. (Appendix 8 offers a formal checklist to be used for the same purpose. It, like all the appendices in this book, is available for download from www.newharbinger .com/39287.)

In RO DBT, Silliness Is No Laughing Matter*

We take silliness very seriously in RO DBT because OC clients take life too seriously. For an OC client, relaxation and play can feel like hard work. Indeed, laughing and frivolity are seen as staged performances for lost travelers on midnight ghost trains speeding through… [Editor's note: Stop! Cease! Desist! That is *quite* enough silliness for one page. We apologize for the author's undignified ramble and assure the reader that we requested—nay, *demanded*—a rewrite of this section and have carefully monitored the author's use of silly language throughout the remainder of the text. We urge the reader not to squander any more valuable time perusing the paragraphs that follow and instead to get right down to work, starting with chapter 1. As the saying goes, business and hard work before pleasure and silliness—and we mean business!]

In RO DBT, silliness is no laughing matter. Our OC clients are already too serious. They compulsively work and strive to achieve long-term goals yet have forgotten how to relax, play, or join in with others. For an OC client, socializing can feel like hard work. [Author's query: How am I doing so far?] [Editor's reply: I've seen better.]

The question is, why would silliness be therapeutic, especially since most adults work hard to avoid appearing silly in front of other people? The quick answer is that our avoidance stems from our deep-seated fear of being socially humiliated or ostracized. Yet if silliness is so feared, then why is it so common? Plus, why do so many people enjoy behaving in a silly manner, particularly when around friends? What is interesting, when you take a moment to think about it, is that we make funny faces, use silly voices, and exaggerate our gestures when interacting with young children, not so much because *we* feel safe but because we intuitively recognize that acting silly with kids helps *them* feel safe, which also makes it easier for them to learn, explore, and grow.

Thus, regardless of your age, your silly behavior around another person, especially when that person is in a power-down relationship with you—in a more vulnerable state, for example, like a client in therapy—is an act of kindness and a powerful signal of nondominance, equality, and friendship. However, the best silly behavior—as any parent knows—is the kind that stems from the heart and is as much fun for the sender of a silly social signal as it is for the receiver. The problem for those of us who are no longer seven years old or younger is that having fun while being silly can sometimes be hard to do. The good news is that even cranky adults can learn to enjoy being silly—it's all about giving yourself permission, throwing yourself into the deep end, and then practicing again and again and again.

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* …or, On the Importance of Being Absolutely, Positively, Indubitably, Superlatively, Incorrigibly, Unapologetically, Side-Splittingly, Over-the-Top, Spew-Coffee-Out-Your-Nose, Damn-the-Torpedoes *SILLY*

It's the same for our OC clients. They will not believe it is socially acceptable for them to play, relax, or openly express emotions unless they see their therapists model that behavior first. That's why, from time to time, you'll see in the chapters ahead some unusual language and text recommended by the association known as Writers Airing Silly Sayings Attributed to Unknown People (WASSA UP) that serves as the best way to remind you—repeatedly, of course—of just how silly life can be. So watch out for WASSA UP! [Editor's note: Heaven help us.]

Radical Openness and Disorders of Overcontrol

Self-control—the ability to inhibit competing urges, impulses, behaviors, or desires, and to delay gratification in order to pursue distal goals—is often equated with success and happiness. Indeed, failures in self-control characterize many of the personal and social problems afflicting modern civilization. Deficient self-control has been linked cross-sectionally and longitudinally with a broad spectrum of problems, including substance abuse, criminal activities, domestic violence, financial difficulties, teen pregnancy, smoking, and obesity (Baumeister, Heatherton, & Tice, 1994; Moffitt et al., 2011), and significant portions of governmental spending and scientific research focus on understanding, preventing, and treating deficits in self-control.

Self-Control: Can You Have Too Much of a Good Thing?

However, research shows that too much self-control can be as problematic as too little. Excessive self-control is associated with social isolation, poor interpersonal functioning, and severe and difficult-to-treat mental health problems, such as anorexia nervosa, chronic depression, and obsessive-compulsive personality disorder (T. R. Lynch & Cheavens, 2008; Zucker et al., 2007). Because of the high value that most societies place on delaying gratification and inhibiting overt or public displays of potentially destructive emotions and impulses, the problems linked with excessive inhibitory control, or overcontrol, have either received little attention or been misunderstood, making recognition difficult for clinicians.

Maladaptive overcontrol is expressed discreetly. Even though OC individuals experience high defensive arousal (anxiety, depression, and resentment, for example), they are likely to downplay their personal distress when queried ("I'm fine"). As a consequence, they are less likely to seek mental health treatment. Oftentimes no one outside the immediate family is aware of OC individuals' inner psychological distress. Therefore, they can come to convince themselves and others that their constricted,

rigid, rule-governed behavior and aloof interpersonal style are normal or even ideal. They tend to be serious about life, set high personal standards, work hard, and behave appropriately, and they frequently sacrifice their personal needs in order to achieve desired goals or help others. Inwardly, however, they often feel clueless about how to join with others or form intimate relationships. Overcontrol works well for sitting quietly in a monastery or building a rocket, but it creates problems when it comes to social connectedness.

Defining Overcontrol

Maladaptive overcontrol is characterized by four core deficits:

1. Low receptivity and openness, manifested by low openness to novel, unexpected, or disconfirming feedback; avoidance of uncertainty or unplanned risks; suspiciousness; hypervigilance regarding potential threats; and marked tendencies to discount or dismiss critical feedback

2. Low flexible control, manifested by compulsive needs for structure and order; hyperperfectionism; high social obligation and dutifulness; compulsive rehearsal, premeditation, and planning; compulsive fixing and approach coping; rigid rule-governed behavior; and high moral certitude (the conviction that there is only one "right" way of doing something)

3. Pervasive inhibited emotional expression and low emotional awareness, manifested by context-inappropriate inhibition of emotional expression (for example, presentation of a flat face in response to a compliment) or by insincere or incongruent expressions of emotion (for example, a smile in response to distress, or a show of concern when no concern is actually felt); consistent underreporting of distress; and low awareness of bodily sensations

4. Low social connectedness and intimacy with others, manifested by aloof and distant relationships; a feeling of being different from other people; frequent social comparisons; high envy and bitterness; and reduced empathy

Overcontrol Is Associated with Personality Dysfunction

A quick examination of the ten personality disorders (PDs) listed as being on Axis II in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders*, or DSM-5 (American Psychiatric Association, 2013), reveals that they all involve some form of pervasive and long-standing difficulty with emotion or impulse control and with interpersonal relationships. What may be less obvious, however, is that it is possible to further demarcate these features into two superordinate classes or domains,

which overlap with the well-established division between the internalizing and externalizing disorders (Achenbach, 1966; Crijnen, Achenbach, & Verhulst, 1997). This premise is based on remarkable consistency in outcomes reported from large-scale studies of comorbidity, revealing two broad styles of coping—overcontrol and undercontrol (UC)—as being associated, respectively, with the development of chronic forms of internalizing and externalizing problems. According to the DSM-5, PDs of undercontrol (borderline PD, histrionic PD, antisocial PD, and narcissistic PD) are characterized by low inhibitory control and chaotic or dramatic relationships, whereas PDs of overcontrol (obsessive-compulsive PD, avoidant PD, paranoid PD, and schizoid PD) are characterized by excessive inhibitory control and an aloof or distant interpersonal style (T. R. Lynch, Hempel, & Clark, 2015).

The vast majority of published research on personality disorders has focused on those that the DSM-5 places in Cluster B, most prominently borderline PD and antisocial PD (Clark, 2005b), but there has been a dearth of research examining the PDs of overcontrol that are placed in Cluster A and Cluster C, despite evidence that they are highly prevalent (Coid, Yang, Tyrer, Roberts, & Ullrich, 2006) and associated with impaired functioning and increased use of health care services (Maclean, Xu, French, & Ettner, 2014). Indeed, obsessive-compulsive PD, a prototypical disorder of overcontrol, is the most prevalent personality disorder in community as well as clinical samples (Lenzenweger, 2008; Zimmerman, Rothschild, & Chelminski, 2005).

Interestingly, research shows that PDs of undercontrol remit or recede with age (Zanarini, Frankenburg, Reich, & Fitzmaurice, 2010; Abrams & Horowitz, 1996), whereas PDs of overcontrol appear either to remain stable or to intensify with age (Abrams & Horowitz, 1996). A PD of undercontrol may be more likely to remit over time because dramatic displays and overtly reckless behavior attract attention, which in turn makes it more likely for someone with this type of PD to receive corrective feedback and psychological help. By contrast, a PD of overcontrol may be less likely to remit over time because OC individuals' innate capacity to tolerate distress, delay gratification, and avoid public displays of emotion makes it less likely

> Individuals with disorders of overcontrol are often quietly suffering, even though their suffering may not be apparent.

for their problems to be noticed and thus reduces opportunities for corrective feedback and psychological help (Morse & Lynch, 2004; T. R. Lynch & Aspnes, 2001). As a result, individuals with disorders of overcontrol are often quietly suffering, even though their suffering may not be apparent.

For Chronic Conditions, Personality Matters

A major underlying premise of this book is that *personality matters* when intervening with treatment-resistant and chronic conditions, signaling that broad-based

personality dimensions and overlearned perceptual and regulatory biases are interfering with psychological change. For example, an estimated 40 to 60 percent of unipolar depressed clients meet the criteria for comorbid personality disorder (Riso et al., 2003), and PDs of overcontrol are at once the most common PDs and the ones least likely to respond to treatment (Fournier et al., 2009). Similarly, PDs of overcontrol (especially obsessive-compulsive PD) are the most prevalent PDs found among people suffering from chronic pain, with rates now up to 62 percent (see the review by Dixon-Gordon, Whalen, Layden, & Chapman, 2015).

RO DBT posits that biotemperament may be the driving force behind this phenomenon (T. R. Lynch et al., 2015; see also Clark, 2005b, for similar conclusions). What makes an individual's biotemperament so powerful is that it can influence his perception, learning, and overt behavior at the sensory receptor (or preconscious) level of responding as well as at the central cognitive (or conscious) level of responding. For example, an OC individual walking into a party and seeing a group of people laughing together is biologically more predisposed to see the potential for harm in the situation than to see the potential for reward; in a matter of milliseconds (L. M. Williams et al., 2004), his defensive arousal and urges to flee are triggered at the preconscious level. Before he even knows it, the OC individual has perceived a threat—his brain has already made up its mind, so to speak—and this threat perception may be quickly followed by conscious thoughts like *I'm an outsider* or *I'm no good at telling jokes, and I'll look stupid if I join them*. By contrast, a person without biotemperamentally heightened threat sensitivity—someone who also has normal reward sensitivity—is likely to walk into the same party and think *They look like they're having a good time. I'm going to join them.*

It is important to understand that undercontrol and overcontrol are not one-dimensional personality constructs; that is, they do not simply represent opposite ends of a self-control continuum. Each is a multifaceted construct reflecting core genotypic (related to biology) and phenotypic (related to behavioral expression) differences between spectrums of disorders. As such, these two multifaceted constructs give rise to two important treatment implications:

1. Treatment needs to account for individual differences in biotemperament that may bias perception and impair learning and flexible responding.

2. Treatments targeting problems of undercontrol should emphasize interventions that enhance inhibitory control and reduce mood-dependent behavior, whereas treatments targeting problems of overcontrol require interventions designed to relax inhibitory control and increase emotional expressiveness, receptivity, and flexibility.

Examples of disorders characterized by maladaptive undercontrol and maladaptive overcontrol are listed in table 1.1.

Table 1.1. Difficult-to-Treat Disorders with
Characteristics of Undercontrol and Overcontrol

Disorders of Undercontrol (Emotionally Dysregulated and Impulsive)	Disorders of Overcontrol (Emotionally Constricted and Risk-Averse)
Borderline personality disorder	Obsessive-compulsive personality disorder
Antisocial personality disorder	Paranoid personality disorder
Binge-purge eating disorders	Avoidant personality disorder
Narcissistic personality disorder	Anorexia nervosa
Histrionic personality disorder	Schizoid and schizotypal personality disorders
Conduct disorders	Autism spectrum disorders
Bipolar disorder	Treatment-resistant anxiety
Externalizing disorders	Internalizing disorders

Basic Postulates of RO DBT

The Importance of Defining Psychological Well-Being

A central tenet of RO DBT is that self-control is highly and perhaps universally valued in most societies, and that the value placed on self-control influences how a society defines deviant or abnormal behavior.[3] Deviance from social norms involves formal violations of explicit rules (as in criminal activity) as well as informal violations of social customs or expectations that are less well defined, and that involve social etiquette (as in transgressions with respect to cultural expectations around eye contact).[4] Societal values and norms also influence treatment values and goals because, arguably, treatment equates by definition to the reestablishment of "normal" functioning.

For overcontrolled clients, societal veneration of self-control is both a blessing (these clients' capacity for self-control is often admired) and a curse (their personal suffering, linked as it is to overcontrol, often goes unrecognized). Indeed, OC clients set high personal standards for themselves (and others) and are expert at not appearing deviant on the outside (that is, in public). They are not the people fomenting riots or robbing convenience stores on a whim. They are not the ones you see yelling at each other from across the street. They are perfectionists who tend to see mistakes

everywhere (including in themselves), and they tend to work harder than most others to prevent future problems. They don't need to learn how to take life more seriously, or try harder, or plan ahead, or behave more appropriately in public. They have too much of a good thing—their self-control is out of control, and they suffer as a result. Therefore, RO DBT, instead of highlighting what's "wrong" with an individual client, starts from observations about what's healthy *in all of us* and then uses these observations to guide treatment interventions.

Psychological health or well-being in RO DBT is hypothesized to involve three core transacting features:

1. Receptivity and openness to new experience and disconfirming feedback, so that learning can occur

2. Flexible control, so that adaptation to changing environmental conditions can occur

3. Intimacy and social connectedness with at least one other person, based on the premise that our survival as a species depended on our ability to form long-lasting bonds and work together in tribes or groups

The core idea is that hyperperfectionist OC clients are most likely to benefit from treatment approaches that teach them how to actively seek well-being.

Self-Control as a Precursor for Community

If too much self-control generates so much individual suffering, then why is excessive self-control so rarely linked with abnormal or deviant behavior? I contend that the answer lies in the essential role played by self-control in the creation of society itself—in other words, that the answer lies in our tribal nature, a premise whose rationale originates in ideas influenced by evolutionary theory.

Humans, compared to other species, are not particularly robust, at least when it comes to pure physicality—we lack sharp claws, horns, thick hides, and protective fur. And yet because we have survived (and thrived), it seems plausible that our physical frailty is itself proof that our species' survival depended on something more than individual strength, speed, or toughness. From the perspective of RO DBT, we survived because we developed the capacity to work together in tribes and share valuable resources with others in our tribe who were not in our immediate nuclear family. These developments required the discovery of a way to bind genetically diverse individuals together in such a way that survival of the tribe could override older, more selfish tendencies linked to survival of the individual (see Buck, 1999, for similar observations). RO DBT posits that the end product of this evolutionary challenge required us to find a way to bind genetically diverse individuals together in such a way that "survival of the tribe" could override older, selfish tendencies linked to the survival of the individual, including:

1. The ability to inhibit our propensities for action: This means that we developed capacities to regulate the outward expression of emotion-based action tendencies or impulses (for example, the urge to attack or run away). Not acting on every impulse allowed us to live in close proximity to each other because we could trust our fellow tribe members not to automatically express a potentially damaging action urge (for example, a desire to hit).

2. The ability to regulate how we signal our intentions and personal observations about the world: This means that we developed a highly sophisticated social signaling system that allowed us to communicate intentions and feelings (for example, an angry glare linked to a desire to attack), without having to fully express the actual propensity itself (for example, hitting someone). *Signaling our intentions* from afar (for example, via facial expressions, gestures, or vocalizations) reduced unnecessary expenditures of energy and provided us a safer means of resolving conflict and initiating collaborations with others, without having to fully commit ourselves. Plus, revealing intentions and emotions to other members of our species was essential to creating the type of strong social bonds that are the cornerstone of human tribes. *Communicating our observations* involved nonverbal behaviors, such as gaze direction and pointing, as well as with verbal observations. Revealing to others our observations about nature (for example, "I see a cow") and then receiving verification (or not) about our perception by another member of our species (for example, "No, I see a tiger—let's run!") provided a huge evolutionary advantage because our individual survival no longer depended solely on our personal perception. This helps explain why we are so concerned about the opinions of others.

3. The ability to persist and to plan for the future: The evolution of persistence and planning likely involved the development of areas of the brain associated with evaluating nonimmediate contingencies, as when we imagine a potential future consequence. But persistence and planning differ in that planning involves considering the consequences of taking a future action, whereas persistence involves considering the consequences of ceasing to do what one is already doing (Smith et al., 2007).

These evolutionary developments facilitated the ability of our species to survive in increasingly diverse and inhospitable environments. For example, our enhanced capacities for planning ahead allowed us to remember that in the past food availability had depended on the season, and to use this knowledge to make plans for the future. At the same time, our ability to inhibit our excitatory response tendencies (for example, by not immediately consuming every valuable resource) and downregulate defensive response tendencies (for example, by not immediately attacking someone who stepped on our toe) allowed us not only to work together in groups, without fear of being attacked, but also to save valuable resources for a future time of need.[5] Thus

the capacity for inhibitory control was the basis for community; combined with persistence, it allowed us to actualize our long-term goals and plans. For example, even though we may have been tired, we continued to pick apples over many weeks instead of simply lying back and feasting on the fruits of summer.[6] And, as we've seen, the capacities for social signaling and communication helped save those nearsighted members of our tribe who tended to mistake tigers for cows, which meant that the tribe continued to benefit from the efforts of its myopic members throughout the apple-picking season.

The Hidden Costs of Self-Control

Lacking command over oneself and acting against one's better judgment have been contemplated as core sources of human suffering since at least 380 BCE, when Plato's *Protagoras* is thought to have first seen the light of day. But if self-control was so important to the survival of the individual and the species, then why do so many individuals with high self-control suffer from loneliness and chronic mental health problems?

Current psychological theories regarding self-control consider the resolution of this conundrum to involve two sequential stages: a person must first identify the presence of a conflict involving self-control and then take steps to actively resolve the conflict by reinstating efforts toward self-control (Neal, Wood, & Drolet, 2013). The core idea is that competing motivations—such as the motivation to give into temptation (for example, by watching television) and the motivation to stay the course and achieve a long-term goal (for example, by going running in order to stay healthy)—create dissonance in a person. We generally understand that acting against one's better judgment means being deficient in self-control, and so it's fair to wonder how habitual self-control could be against anyone's better judgment. But what counts for an OC individual as acting against his better judgment is not being *deficient* in self-control—it's having *excessive* self-control.

It appears that the innate biological advantage of high self-control becomes an OC individual's worst enemy. Self-control is often equated with approach coping. Traditionally, approach coping has been assumed to be the healthiest and most beneficial way of reducing stress, whereas avoidance coping has been associated with negative personality traits, potentially harmful activities, and generally poorer outcomes. In fact, the beneficial effects of approach coping have led to the development of a wide range of therapies that highlight an increase in approach coping as a core component of effective treatment (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Linehan, 1993a; Kohlenberg & Tsai, 1991).

However, individuals characterized by excessive self-control tend to use approach coping *compulsively*, even when they may cause themselves harm by doing so. For example, an OC individual is unlikely to put off performing an important task simply because it's unpleasant; on the contrary, she's likely to work obsessively at completing

the task, regardless of other life circumstances (for example, she may stay late at work and miss the regular social gathering of her colleagues at a local restaurant). Similarly, an OC individual, rather than avoiding a social event in order to escape the anxiety it inspires, is likely to force himself to attend, even when avoidance would be more adaptive (for example, he may feel compelled to go ahead and attend a book club luncheon even though he just got mugged on the subway). The problem for OC individuals is that they engage in *too much* active problem solving, whereas many therapies focus on correcting clients' deficits in precisely this area. What is perhaps perplexing, often as much for OC clients as for their therapists, is that the OC individual's superior capacity for approach coping does not necessarily translate into superior outcomes in all contexts. It's true that, in general, people scoring high on measures of approach coping are good at getting things done. Trains run on time, projects are completed, resources are properly saved, and important goals are achieved. But this kind of OC mastery appears to fall apart when it comes to relationships. The dilemma for the OC individual seeking an intimate relationship is that, by definition, intimacy will require her to relinquish control and reveal vulnerability to the other person—or, in other words, go opposite to her natural inclinations to mask inner feelings and avoid appearing incompetent. Plus, simply encouraging her to approach a potentially rewarding social encounter is likely to backfire, since she cannot simply do, think, or accept her way out of a brain-based behavioral problem.

When Good Habits Go Bad

The motto of an overcontrolled client is "When in doubt, apply more self-control," irrespective of circumstances or potential consequences. Thus overcontrol is both a habit and hard work. It requires the client to exert effortful control over emotion-based action urges, and to delay gratification.

But if excessive self-control is causing so many problems for overcontrolled clients, then why don't they just use their superior capacity for self-control to inhibit their *maladaptive* self-control? The problem is that too much self-control appears to deplete the very resources needed to override habitual self-control when the immediate environmental cues suggest that doing so would be adaptive; research shows that willpower depletes energy resources, in the form of glucose, and that this depletion can negatively impact coping afterward (see Gailliot et al., 2007). Thus excessive self-control is habitually exhausting. When our energy resources are depleted, our capacity for self-control tends to go as well, and it becomes more likely for habitual responses to become dominant (Neal et al., 2013; Muraven & Baumeister, 2000). Habitual responses are most likely to be cued when current environmental stimuli are familiar. The advantage for the individual is that a habit can often be at least as effective as a deliberate effort, but the habit also demands fewer cognitive resources (for example, driving my car doesn't require a great deal of cognitive effort because I am an experienced driver, and I probably drive better when I don't think too much about what I'm doing).

Why Are Social Situations So Exhausting
for an OC Individual?

OC clients almost universally report mental exhaustion in response to social events, very often the very events that others report having experienced as rewarding, exciting, or invigorating. After a social event, it is not uncommon for OC clients to yearn for down time and sensory deprivation (for example, by lowering all the window shades, putting in earplugs, advising family members to leave them alone, swallowing an aspirin, and retiring to bed). It doesn't cost much energy for an OC individual to take a difficult exam or complete a tax form, whereas an unplanned party can be overwhelming. (This response represents a fundamental difference between overcontrolled individuals and other people.)

But *why* does an OC individual find social situations so exhausting? One explanation is that social interactions are highly unpredictable—we can never know for certain how other people will respond to us. This inherent lack of predictability is compounded by OC individuals' biotemperament-based high threat sensitivity, which makes it more likely for them to perceive social interactions as potentially hostile. Interestingly, OC clients usually report that a social interaction involving a set agenda, clearly defined goals, or preassigned roles—for example, a business meeting, a class, or a choir rehearsal—is less anxiety-provoking and preferable to a social interaction like a picnic, a group celebration, or a team-building activity, where conversation flows freely and there are no assigned roles. OC individuals participating in unstructured social events often feel clueless about how to behave or what to say. Though their strong desire to do the right thing, behave properly, and exert control over situations is fundamentally prosocial, when these same attributes are applied rigidly and compulsively, regardless of context, they function to undermine social connectedness.

Broadly speaking, OC individuals don't know how to party hearty, whoop it up, throw down, paint the town, get in the groove, put on their dancing shoes, cut a rug, kick out the jams, or go off the hook. [Editor's note: Oh dear.] Ask an undercontrolled client why he went to a party, and he's likely to say, "Because I felt like going." Ask an overcontrolled client, and she's likely to say, "Because I thought it was the right thing to do." In this way, much of an OC individual's behavior is excessively rule-governed rather than driven by moods. This kind of behavior—combined with a biological predisposition for high threat sensitivity, low reward sensitivity, and high inhibitory control—leads to an overly serious attitude toward life and makes it hard to know how to celebrate with others, without feeling self-conscious. After all, an OC individual cannot simply leave her biotemperament at home every time she attends a social event. It's this pattern that is posited to be a key factor underlying the loneliness of OC individuals.

It's important to note that when a person's willpower is depleted, environmental cues trigger not just bad habits, such as overeating, alcohol abuse, and overspending, but also good habits, such as exercise, planning, and studying hard (Hofmann, Rauch, & Gawronski, 2007). Good habits are good precisely because they promote the attainment of long-term goals; bad habits are bad because they promote short-term pleasure or relief and impede long-term goal attainment (Neal et al., 2013). Not surprisingly, good habits characterize overcontrolled coping, and bad habits characterize undercontrolled coping.

Unfortunately for OC clients, being good all the time leads to trouble. OC clients are likely to believe that it's imperative not to reveal weakness or vulnerability. Therefore, even though they're highly anxious on the inside, they work hard not to let others see it on the outside, thus placing an additional burden on their already exhausted self-control system. A type of catch-22 emerges, with excessive self-control exhausting the resources needed to control excessive self-control, thereby making it harder to turn to alternative ways of coping (for example, taking a nap or asking for help). The OC client may feel inside like a prisoner of self-control, but his natural tendency to inhibit (control) the expression of his emotions makes it harder for others to know he is distressed and be able to offer assistance.

Using Neuroregulatory Theory to Target Biotemperament

How does one find the energy to change a habit that perpetually depletes one's energy? RO DBT's answer to this conundrum is to take advantage of basic emotion research demonstrating neuroinhibitory relationships between the parasympathetic nervous system (PNS) and the sympathetic nervous system (SNS; see Berntson, Cacioppo, & Quigley, 1991; Porges, 1995), and to teach the OC client bottom-up regulatory techniques designed to get him back to a state where the influences of biotemperament are less powerful, and where his top-down regulatory capacities are consequently less depleted (see the skills training manual, chapter 5, lesson 3). These techniques not only do not require much effort to produce beneficial effects, they also provide the executive control areas of an OC client's brain a much-needed minibreak to replenish central cognitive energy reserves, thereby making it easier for the client to learn and apply new RO skills.

A Novel Mechanism of Change: Social Signaling Matters

None of the preceding discussions has addressed a core issue regarding the development of self-control in our species. To be specific, why did *Homo sapiens* thrive while rival humanoids (for example, the Neanderthals in Western Europe) failed, despite presumably possessing inhibitory and tribal tendencies similar to our own? The answer

may lie in our development of a unique way to enhance our group strength, whereby individual tribe members were able to viscerally experience others as themselves. It's this premise that underlies the core mechanism of change in RO DBT.

Ever since the publication of Charles Darwin's seminal *The Expression of the Emotions in Man and Animals* (Darwin, 1872/1998), a number of theorists and researchers have similarly argued that our emotions evolved for the purpose of communication. Nevertheless, as science became increasingly sophisticated at investigating internal experience (such as cognition, physiology, attention, and neurobiology), treatment approaches increasingly tended to overlook this argument. RO DBT, by linking *neuroregulatory theory* and the *communicative functions of emotional expression* to the *formation of close social bonds*, introduces a unique thesis regarding the mechanism by which overcontrolled behavior leads to psychological distress.

A central notion of this thesis is that biotemperamentally heightened OC threat sensitivity makes it more difficult for an OC client to enter into his or her neurobiologically based social safety system (T. R. Lynch et al., 2013; T. R. Lynch, Hempel, & Dunkley, 2015). The experience of feeling safe activates an area of the brain—the PNS ventral vagal complex (see chapter 2), associated with contentment, friendliness, and social engagement—that innervates social engagement muscles involved in modulating tone of voice, facial expressions, listening to human speech, and maintaining eye contact (Porges, 1995, 2001). When we feel safe, we naturally desire to affiliate with others, and our facial and vocal expressions are more relaxed, variable, and playful. However, when the environment is perceived as threatening, another area of the brain associated with mobilization behavior—that is, the SNS fight-or-flight response—becomes dominant, increasing heart rate and downregulating the activation of the striated muscles of the face and head, thus reducing the individual's ability to engage with the social world (Porges, 2001).

Robust research shows that *context-inappropriate suppression* of emotional expression or *incongruent* emotional expression (that is, a mismatch between outward expression and inner experience) will make it more likely for others to perceive one as untrustworthy or inauthentic (Boone & Buck, 2003; English & John, 2013; Kernis & Goldman, 2006), thereby reducing social connectedness and exacerbating psychological distress (see Mauss et al., 2011). In this way, OC biotemperamentally based threat sensitivity *and* SNS-mediated withdrawal of social safety responses, *combined with* overlearned tendencies to mask inner feelings, are hypothesized to engender social ostracism and loneliness, thus exacerbating psychological distress.

Uniquely, RO DBT posits that emotions evolved in humans not only to *motivate* actions (for example, the fight-or-flight response) and *communicate* intentions (via facial expressions, for instance) but also to *facilitate* close social bonds and altruistic behavior among genetically dissimilar individuals, through micromimicry and proprioceptive feedback. This process is posited to have provided our species with a huge evolutionary advantage and to be a core element of developing empathy and altruism. Through the ability to join viscerally with another person, we become more likely to treat other people as we would like to be treated ourselves (for example, we may be willing to risk serious injury or even death to save someone we hardly know).

There are three ways in which RO DBT incorporates these theoretical observations into treatment interventions:

1. It teaches clients context-appropriate emotional expression and the use of nonverbal social signaling strategies that have been shown to enhance social connectedness.

2. It targets biotemperament-based OC deficits and excesses by teaching skills designed to activate areas of the brain associated with the social safety system, and it encourages clients to use these skills prior to engaging in social interactions. This approach enables an overcontrolled client to naturally relax the facial muscles and send nonverbal signals of friendliness, thereby facilitating reciprocal cooperative responses from others as well as fluid social interactions.

> RO DBT, instead of highlighting what's "wrong" with an individual client, starts from observations about what's healthy *in all of us* and then uses these observations to guide treatment interventions.

3. It teaches therapists how to use the mirror neuron system and proprioceptive feedback to enhance OC clients' engagement and learning by deliberately employing gestures, postures, and facial expressions that universally signal openness, nondominance, and friendly intentions. This aspect of RO DBT highlights the need for therapists to practice radical openness skills in their personal lives, since overcontrolled clients are unlikely to believe that it's socially acceptable to play, relax, admit fallibility, or openly express emotions unless they see their therapists model such behavior first.[7]

Treatment Development and Efficacy Research

This book is the end product of a translational research process that focused on understanding and treating maladaptive overcontrol. Treatment development in RO DBT began nearly twenty-five years before this book's publication, when standard dialectical behavior therapy, or DBT (Linehan, 1993a), was applied to treatment-resistant and chronic forms of depression. At the time, I had yet to fully comprehend the difficulties that might arise when a treatment targeting poor self-control was applied to people characterized by excessive self-control, high tolerance of distress, and interpersonal aloofness—in other words, people who were essentially the dialectical opposite of the population that DBT had originally been designed to treat (that is, people with borderline PD). Standard DBT had clear protocols for improving self-control, but it offered less clarity about what might be needed to help individuals characterized by excessive self-control.

I had long seen high self-control as invariably adaptive. But when it came to treating people whose self-control was out of control, what I observed about the limitations of standard DBT presented a challenge to my thinking, and that challenge was the impetus for the development of what eventually became RO DBT. As my understanding of OC disorders became more sophisticated, so did the theory and interventions underlying the new treatment. Indeed, such modifications and changes are considered a core part of effective treatment development (Carroll & Nuro, 2002; Waltz, Addis, Koerner, & Jacobson, 1993). The iterative nature of this modification process is reflected in the changing acronyms—adapted DBT, DBT-D, DBTD+PD, DBT for EOC, and MED + DBT—that were used to describe the treatment during its early phases of development.

Despite the difficulty of settling on a name, the pilot randomized control trials in our developmental years produced some key outcomes, including the creation of core RO concepts and skills, the development of the first version of our biosocial theory of overcontrol, and the creation of the first RO DBT treatment manual. Moreover, the strength of our preliminary findings (T. R. Lynch, Morse, Mendelson, & Robins, 2003) and growing clinical experience encouraged us to continue refining the manual.

The transdiagnostic nature of the nascent RO DBT approach also spurred new thinking and new research targeting a broader range of disorders and treatment settings. Thus, at the time of this writing, current RO DBT research, training, and clinical work have been extended to different age groups (young children, adolescents, young adults, older adults), different disorders (anorexia nervosa, chronic depression, autism, OC personality disorders, treatment-resistant anxiety), different cultures and countries in Europe and North America, and different settings (forensic, inpatient, outpatient). In addition, training has been extended to a wide range of providers (psychologists, nurses, social workers, psychiatrists, family therapists, occupational therapists), with research examining components of RO DBT already showing promise (for example, skills training alone; see Keogh, Booth, Baird, & Davenport, 2016) and adaptations of the manual in progress (for multifamily RO skills training and RO couples therapy). More than three hundred patients have received RO DBT treatment in research trials around the world, and many more have been treated in clinical settings. Thus the feasibility, acceptability, and efficacy of RO DBT are evidence-based and informed by the findings from five published clinical trials and one recently completed multicenter trial. The remainder of this chapter provides an overview of this efficacy research, with brief descriptions of completed and ongoing studies, along with some notes on future directions.

Randomized Controlled Trials Targeting Treatment-Resistant Depression and Maladaptive Overcontrol

To date, there have been three randomized controlled trials (RCTs) examining the feasibility, acceptability, and efficacy of RO DBT (and its earlier versions) for the

treatment of maladaptive overcontrol and chronic depression. Our first two RCTs (T. R. Lynch et al., 2003; T. R. Lynch & Cheavens, 2007) were pilot studies using adapted versions of standard DBT (Linehan, 1993a), which we modified to target depression and features linked to maladaptive overcontrol, with the aim of producing a comprehensive RO DBT treatment manual. Both trials purposefully recruited samples of middle-aged and older depressed adults, on the basis of research showing that this age group was more likely to be characterized by overcontrolled coping (rigidity, cognitive inflexibility, low openness, and diminished expression of emotion; see Morse & Lynch, 2000; T. R. Lynch, Cheavens, Morse, & Rosenthal, 2004; Schaie, Willis, & Caskie, 2004). Our third study in this area—a large multicenter RCT, with three independent sites—was designed to extend the generalizability of the treatment by recruiting adults of all ages with refractory depression. Each of these trials is described in detail in the sections that follow.

First Randomized Controlled Trial

The main objective of our first RCT (T. R. Lynch et al., 2003) was to explore the feasibility and utility of adapting standard DBT (Linehan, 1993a) for refractory depression and problems of overcontrol (T. R. Lynch et al., 2003; T. R. Lynch & Cheavens, 2008).[8] Given that the problems associated with OC depression are essentially opposite to the problems found in borderline personality disorder (BPD), the skills used in this initial RCT, although they were based on standard DBT, were modified in order to address the unique problems associated with OC disorders. For example, very early on we recognized rigidity, low openness to new experience, and emotion inhibition as important mediators or moderators in middle-aged and older depressed samples (Morse & Lynch, 2000; T. R. Lynch, Robins, Morse, & Krause, 2001), and these observations strongly influenced treatment targeting and the development of the new skills and interventions that were incorporated into the first trial.

The experimental condition consisted of two presentations of a fourteen-week sequence of an adapted version of standard DBT skills training, modified to target depression and problems of overcontrol (RODBT-Early, or RODBT-E), plus weekly thirty-minute telephone contact with an individual therapist, followed by three months of phone contact every two weeks and then three months of contact every three weeks. Treatment targets linked to OC problems were developed, including inhibition of emotional expression, bitterness and resentment, hyperserious coping, rigid rule-governed behavior, and fatalistic thinking. Dialectical dilemmas specific to OC problems (for example, bitter attachment versus mindless acquiescence; see C. Reynolds, Arean, Lynch, & Frank, 2004) were also developed and incorporated into the manual. The global aim of treatment was to help clients learn how to respond more flexibly and let go of habitual rigid responding (T. R. Lynch, 2000).

Thirty-four chronically depressed individuals who were sixty years old or older were randomized to either antidepressant medication (MED) alone or antidepressant medication plus RODBT-E (using an early version of what was then the current RO

DBT manual). To be included in the study, participants were required to meet the criteria for a current episode of unipolar major depressive disorder according to the Duke Depression Evaluation Schedule (see George, Blazer, Hughes, & Fowler, 1989) and to score 18 or more on the seventeen-item Hamilton Rating Scale for Depression (HAM-D; see Hamilton, 1960) or 19 or more on the Beck Depression Inventory (BDI; see A. T. Beck, Rush, Shaw, & Emery, 1979). Diagnoses based on the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders*, or DSM-4 (American Psychiatric Association, 2000), were assigned in a consensus diagnostic conference that included a board-certified or board-eligible psychiatrist and used the longitudinal, expert, all data (LEAD) standard (Spitzer, 1983). Of those participants randomized to the RODBT-E condition, 45 percent met the Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II) criteria for at least one personality disorder, whereas only 18 percent of those randomized to the MED-only condition met strict criteria for at least one personality disorder. Attempts were made to keep assessors blind to the variable of treatment condition, although this was not always possible. The majority of the participants reported an average of more than eight previous episodes of depression in their lives. Randomization was successful—the groups did not differ on measures at pretreatment assessment. Two-tailed tests ($p \leq 0.05$) were used for all between-group comparisons; within-group comparisons used Bonferroni corrections, with p values considered significant if they were less than or equal to 0.006. Depression remission was defined as a HAM-D score of less than 8 (E. Frank et al., 1991).

Findings revealed that at post-treatment assessment, 71 percent of the RODBT-E participants were in remission, in contrast to 47 percent of the MED-only participants. At six-month follow-up, 75 percent of the RODBT-E participants were in remission, compared with only 31 percent of the MED-only participants—a significant difference (T. R. Lynch et al., 2003). The RODBT-E group showed significantly decreased self-reported depression scores on the BDI from pretreatment to post-treatment, a change maintained at follow-up, but change on this dimension was not significant for the MED-only group. Only the RODBT-E participants demonstrated significant improvement in a maladaptive personality style that is associated with fears related to being liked by others. In addition, the RODBT-E participants showed significant improvement in adaptive coping after stressful events, and these changes were maintained at six-month follow-up. Improvements in total coping were associated with feeling less overpowered, being more likely to seek social support, and being less likely to take frustrations out on others.

Secondary analyses of these data showed that higher levels of thought suppression were associated with higher depressive symptoms six months after treatment, a finding that provided preliminary support for hypotheses linking poorer outcomes to inhibition of emotional experience and expression (Rosenthal, Cheavens, Lejuez, & Lynch, 2005). The major limitation of our first RCT was its small sample size, with only seventeen participants randomized to each condition. The new RO skills that were piloted in this study were developed in part from weekly meetings of the treatment team.[9] These meetings included discussion of how patients were responding to

RODBT-E, discussions about relevant literature, and discussion of research findings that had to do with potential moderators and mediators of outcomes (T. R. Lynch et al., 2004; Rosenthal et al., 2005). In addition, as the treatment developer, I conducted focus group meetings as well as individual interviews with participants who had completed treatment. The purpose of the meetings and interviews was to gain a better understanding of OC problems and a sense of the modified interventions' acceptability and credibility. Information garnered from these meetings and interviews helped us further refine RODBT-E, and it provided the clinical foundation for our next RCT.

Second Randomized Controlled Trial

Our second RCT (T. R. Lynch & Cheavens, 2007) was designed to further test the newly developed RO skills and treatment targets piloted in the first trial, with the aim of creating an even more comprehensive RO DBT treatment manual targeting OC problems and treatment-refractory depression.[10] To be included in the study, participants had to be at least fifty-five years old and meet the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) criteria for a current episode of major depressive disorder, the SCID-II criteria for a personality disorder, and score 18 or more on the seventeen-item HAM-D. In our sample, 78 percent met the criteria for a personality disorder of overcontrol; the most common Axis II disorders were obsessive-compulsive PD, paranoid PD, and avoidant PD. All the assessors were blind to the variable of treatment condition, and the primary outcome measure was the seventeen-item HAM-D. Depression remission was defined as a HAM-D score of less than 10.

To prospectively ensure that the experimental sample would include only individuals with treatment-resistant depression and comorbid PD, the study design had two treatment phases. In phase 1, participants ($N = 65$) met regularly with a research psychiatrist who prescribed and monitored eight weeks of antidepressant medication at dosages recommended by best-practice guidelines. Only 14 percent of the participants in this initial phase demonstrated at least a 50 percent reduction in their interviewer-rated depressive symptoms, with the result that 85 percent of the sample met the criteria for treatment-resistant depression.

In phase 2 of the study, those individuals who did not adequately respond to antidepressant medication, and who consented to continue participation ($n = 37$, or about 57 percent of the original group), were then randomized to either twenty-four weeks of RODBT-E2 (that is, RODBT-Early, manual 2) or a control group that received general psychiatric care plus antidepressant medication (MED).[11] Participants in both conditions were prescribed antidepressant medication by a board-certified psychiatrist.

The RODBT-E2 condition consisted of weekly two-hour skills training classes, with the addition of one hour per week of in-person individual therapy plus antidepressant medication. Telephone consultation with an RODBT-E2 therapist was

available to participants outside of therapy hours (although this resource was rarely used), and RODBT-E2 research therapists came together weekly for a ninety-minute consultation team meeting. The general psychiatric care–MED condition included regularly scheduled meetings (at least monthly) with a research psychiatrist who provided general psychiatric care consisting of counseling, as needed, and who monitored antidepressant medication. Research psychiatrists were encouraged to adjust dosages or change the type or class of prescribed medication in order to ensure optimal dosage and treatment.

Results showed that 71 percent of the RODBT-E2 participants were in remission at the post-treatment evaluation, compared with 50 percent of the participants in the control condition, a trend that was maintained at three-month follow-up but leveled off at six-month follow-up. The RODBT-E2 participants demonstrated significant improvement in personality dysfunction (interpersonal aggression and interpersonal sensitivity) compared to the control group in the general psychiatric care–MED condition, and these advantages were maintained at six-month follow-up.

The major limitation of both of our first two RCTs was that neither study had enough statistical power to detect between-group differences. Nevertheless, major and significant advantages were found for the RODBT-E participants, as represented by their having achieved and maintained high rates of depression remission, compared to the control condition (see T. R. Lynch et al., 2003), and RODBT-E2 demonstrated significantly better outcomes on measures of personality, compared to the control condition. Both studies included the most difficult-to-treat clients: they were older, had personality disorders, were suicidal, and suffered from chronic conditions. Dropout rates for the experimental conditions (RODBT-E and RODBT-E2) were low—6 percent and 28 percent, respectively. The higher dropout rate for the second study may reflect the more severe nature of the sample (a diagnosed personality disorder was a requirement for participation). In addition, the participants in the first study were concurrently taking part in a larger longitudinal study, and that may have been a protective factor against dropout. Results from both trials provided preliminary support for our earliest versions of RO DBT, including support for its feasibility, its acceptability, and its clinical utility.

Our second trial also allowed us to further develop the new treatment manual (T. R. Lynch & Cheavens, 2008). A novel biosocial theory for OC disorders was developed, and new RO skills emerged that were designed to maximize openness, increase flexible responding, and reduce rigid, rule-governed behavior.[12]

Third Randomized Controlled Trial

Notwithstanding the advances achieved in our first two RCTs, the development of RO DBT for treatment-resistant and chronic depression could have ended after the second trial. One reason was that we had received feedback from several independent US and UK grant reviewers that the data from our first two RCTs were sufficiently strong for us to publish the RO DBT manual as it was, without further

modification or research. Yet I remained skeptical. My clinical experience suggested that we had only begun to scratch the surface of knowing our OC clients. Moreover, I had decided to relocate our research lab from Duke University to the University of Exeter and, eventually, to the University of Southampton, in the United Kingdom, and these moves brought a wave of new opportunities, ideas, and collaborations, which helped RO DBT mature into its current form. Our third RCT—studying refractory depression and overcontrol, and known as Project RefraMED (for Refractory Depression: Mechanisms and Efficacy of RO DBT)—emerged from this.

Project RefraMED was a multicenter randomized trial in which we randomized participants to receive either seven months of RO DBT plus treatment as usual (TAU) or TAU alone. RO DBT comprised twenty-nine weekly individual sessions lasting one hour plus twenty-seven weekly skills classes lasting two and a half hours. We permitted patients allocated to TAU to access any treatment offered to them by the National Health Service (NHS) or by private providers. We recruited participants from three centers in the United Kingdom—Dorset, Hampshire, and North Wales. Patients were eligible if they were eighteen years or older; had a score of at least 15 on the HAM-D; had a current diagnosis of major depressive disorder on the SCID-I; were suffering either refractory or chronic depression; and, in the current episode, had taken an adequate dose of antidepressant medication for at least six weeks, without relief. However, we excluded patients who met criteria for dramatic-erratic personality disorder (Cluster B), had bipolar disorder or psychosis, or had a primary diagnosis of substance dependence or abuse.

We used an adaptive algorithm to allocate participants at random between treatments and therapists, using three stratifying variables to ensure balance between groups:

1. Early or late onset of depression

2. HAM-D score above or below 25

3. Presence or absence of a personality disorder

Trained assessors blind to these allocations assessed participants seven, twelve, and eighteen months after randomization. Our primary outcome measure was severity of depressive symptoms on the HAM-D, measured at these three points. We allocated 250 participants by adaptive randomization, 162 to RO DBT and 88 to TAU. Patients reported substantial comorbidity: 86 percent reported at least one comorbid Axis I disorder, and 78 percent reported at least one comorbid Axis II disorder. In addition, the RO DBT adherence self-assessment scale (see appendix 8) and new measures to facilitate identification of OC clients (see chapter 3) emerged from this trial.

RO DBT for Anorexia Nervosa

RO DBT has also been used in the treatment of anorexia nervosa (AN), a serious psychiatric illness characterized by low body weight and intense fear of gaining weight

(American Psychiatric Association, 2000). For adults with AN, no specific treatment has been shown to be superior (H. J. Watson & Bulik, 2013). British and US guidelines (National Collaborating Centre for Mental Health, 2004; American Psychiatric Association, 2006) make no specific recommendations for the treatment of AN in adults, a fact suggesting the need for new theoretical and treatment approaches to this disorder.

AN has long been conceptualized as a disorder of overcontrol, as manifested by propensities for aloofness and social withdrawal, cognitive rigidity, insistence on sameness, low novelty-seeking behavior, strong personal needs for structure and symmetry, heightened threat sensitivity, and hyperperfectionism (Fairburn, 2005; T. R. Lynch, Hempel, Titley, Burford, & Gray, 2012; Safer & Chen, 2011; Zucker et al., 2007). Deficits in emotional functioning in AN include impaired recognition of emotion in others and reduced emotional expression, particularly when it comes to the expression of negative emotions (Geller, Cockell, Hewitt, Goldner, & Flett, 2000). Thus AN fits well within the biosocial theory of overcontrol, since a number of researchers have found it to be associated with the following OC characteristics:

- Sensitivity to threat (Harrison, Tchanturia, & Treasure, 2010)

- Insensitivity to rewards (for a review, see Harrison, O'Brien, Lopez, & Treasure, 2010)

- An invalidating and critical childhood environment (Kyriacou, Treasure, & Schmidt, 2008; Mountford, Corstorphine, Tomlinson, & Waller, 2007)

- Inhibited emotional expression (Geller et al., 2000)

- Low sensation-seeking behavior (Rossier, Bolognini, Plancherel, & Halfon, 2000)

- Perfectionism (Franco-Paredes, Mancilla-Díaz, Vázquez-Arévalo, López-Aguilar, & Álvarez-Rayón, 2005)

- Aloof or distant relationships (for a review, see Zucker et al., 2007)

RO DBT offers an original perspective on the etiology and treatment of anorexia nervosa (T. R. Lynch et al., 2013) by conceptualizing restrictive and ritualized eating as symptoms or consequences stemming from rigid maladaptive overcontrolled coping, based in part on research showing that OC coping preceded the development of the eating disorder. Plus, the neuroregulatory theory that underlies RO DBT provides a novel means of understanding compulsive self-starvation, based on neuro-inhibitory relationships between the parasympathetic and sympathetic nervous systems. Specifically, according to the RO DBT model, after periods of intense restrictive eating, the client's neuroregulatory system "perceives" the body's depleted metabolic state as life-threatening, thereby triggering the dorsal vagal complex of the evolutionarily older parasympathetic nervous system (the PNS-DVC), which inhibits energy-depleting action tendencies (urges to flee or fight) mediated by the sympathetic nervous system while reducing sensitivity to pain and increasing emotional

numbing (as seen, for example, in the client's flat affect). Thus the client's restrictive eating develops as a means of downregulating anxious arousal—but with a hidden price, RO DBT posits, because the flattened affect secondary to PNS-DVC activation increases the likelihood that the client will be socially ostracized (J. J. Gross & John, 2003; T. R. Lynch et al., 2013).

Unlike most other approaches targeting eating disorders, RO DBT considers it essential for therapists treating AN to identify clients' goals and values that are not solely linked to food, weight, body shape, or other, similar issues related to eating disorders. From the outset, the RO DBT–adherent therapist will smuggle the idea that the client is much more than an eating disorder. This approach is purposefully designed to let the therapist attend to the client's psychological issues while also preventing therapy from possibly reinforcing the client's maladaptive AN behavior by making it the top treatment priority (for more on this point, see "Overview of Treatment Structure and Targets," chapter 4).

In RO DBT, mindfulness-based approaches to anorexia nervosa focus on teaching clients the practice of urge-surfing their food-averse response tendencies (for example, sensations of bloating, nausea, urges to vomit, and catastrophizing thoughts). In this practice, the goal is not the client's mindful enjoyment of food; on the contrary, the focus is on the client's noticing aversive sensations, emotions, and thoughts associated with food ingestion but not responding as if such a sensation, emotion, or thought were a crisis. Instead, the client is encouraged to dispassionately observe food-averse response tendencies and is reminded that this practice is similar to the techniques used by sailors to overcome seasickness, or by jet pilots to overcome severe nausea.[13]

Research by T. R. Lynch et al. (2013) has tested the feasibility and outcomes of using a modification of RO DBT for the treatment of restrictive-type anorexia nervosa (AN-R) in an inpatient setting.[14] In this study, forty-seven individuals diagnosed with AN-R (the mean admission body mass index, or BMI, was 14.43) received inpatient RO DBT (the mean length of treatment was 21.7 weeks). Intent-to-treat (ITT) analyses demonstrated significant improvements in weight, despite the fact that RO DBT does not emphasize weight gain and focuses instead on the client's gaining a life worth sharing. The increase in BMI demonstrated in the ITT analyses was equivalent to a large effect size of 1.71, by contrast with an effect size of $d = 1.2$ reported for other inpatient programs (see Hartmann, Weber, Herpertz, & Zeeck, 2011). Of those who completed treatment, 35 percent achieved full remission, and an additional 55 percent achieved partial remission, for an overall response rate of 90 percent. The same individuals demonstrated significant and large improvements in ED-related psychopathology symptoms ($d = 1.17$), ED-related quality-of-life issues ($d = 1.03$), and psychological distress ($d = 1.34$). These rates of remission are encouraging, since the literature on AN recovery has demonstrated that attainment of a higher BMI during treatment predicts better relapse prevention (Carter et al., 2012; Commerford, Licinio, & Halmi, 1997). Furthermore, these rates of remission are comparable to those achieved in outpatient settings and are noteworthy because they were achieved in a more severely underweight and more chronic population.

Also promising are the results of a small case-series pilot study in which standard individual DBT was augmented by an average of thirty-two weeks of RO skills training that addressed overcontrol (E. Y. Chen et al., 2015). The participants were nine adult female AN outpatients, ranging in age from nineteen to fifty-one, with an average baseline BMI of 18.7.[15] Of this sample, 75 percent met either subclinical or full criteria for the binge-purge subtype of AN. At baseline, the majority (88 percent) had a comorbid DSM-4 Axis I disorder (such as depression), and 63 percent had a comorbid DSM-4 Axis II disorder (such as obsessive-compulsive personality disorder), with 25 percent reporting histories of suicidal or nonsuicidal self-injury. Independent assessors conducted standardized clinical interviews both before and after treatment. ITT analyses demonstrated significant rates of weight gain and menses resumption for 62 percent of the sample by the end of treatment. Results demonstrated large effect sizes for increased BMI ($d = 1.12$), and these were sustained both at six-month follow-up ($d = 0.87$) and at twelve-month follow-up ($d = 1.21$). Furthermore, improvements in total Eating Disorder Examination scores at the end of treatment yielded an effect size of $d = 0.46$, which was sustained at six-month follow-up ($d = 0.45$) but declined at twelve-month follow-up ($d = 0.34$).

Research on using RO DBT with adult AN clients continues, in collaboration with colleagues at Sweden's Uppsala University, with a special emphasis on hypothesized mechanisms of change. Preliminary research examining the efficacy of using RO DBT with treatment-resistant adolescent AN clients is also under way, in collaboration with the South London and Maudsley NHS Foundation Trust and the Institute of Psychiatry in London. This research includes a novel multifamily RO skills training program.

RO Skills Training for Treatment-Resistant Disorders of Overcontrol

An important issue for multicomponent treatments like RO DBT is to determine the extent to which structural components of the treatment are also essential components. For example, how effective is RO skills training alone in achieving important clinical outcomes? To address this question, an independent research team (Keogh et al., 2016) used a nonrandomized controlled design to investigate, without our involvement, the effectiveness of RO skills training alone in the treatment of overcontrolled personality dysfunction as compared to TAU.

In this study involving treatment-resistant adult subjects ($N = 117$), participants were recruited to an RO skills training group ($n = 58$) or, if that group was full, were placed on a waiting list and given TAU ($n = 59$). The TAU participants went on to attend RO skills training sessions as space became available.[16]

On sociodemographic and clinical measures there were no statistically significant differences at baseline between the RO skills training group and the TAU group. Participants in both groups completed a battery of measures at pretreatment and again at post-treatment. In addition, participants in the RO skills training group

completed measures at three-month follow-up as well as measures of therapeutic alliance and group processes at the sixth and eighteenth sessions of the training.

Of the fifty-eight people in the RO skills training condition, six dropped out, for a treatment dropout rate of 10 percent; five did not complete postgroup measures; and forty-seven did complete postgroup measures, for a response rate of 81.5 percent. There were no significant differences between dropouts and treatment completers. Of the fifty-nine TAU participants, twenty-two did not return post-treatment questionnaires; thirty-seven did complete post-treatment questionnaires, for a response rate of 62.7 percent.

The results of this study showed significantly greater improvement in global severity of psychological symptoms, with medium effects post-treatment, for RO skills training alone than for TAU.[17] This study is important, not only because it was conducted without the clinical involvement or supervision of the treatment developer but also because it provides preliminary evidence for the utility of RO skills training alone for treatment-resistant OC adults.

RO DBT *with Forensic Populations*

More recently, RO DBT has been applied in forensic settings, on the basis of research identifying two broad classes of violent offenders characterized as either overcontrolled or undercontrolled (Megargee, 1966; Megargee & Bohn, 1979). In comparison to undercontrolled offenders, overcontrolled offenders have been shown to be more introverted, shy, timid, tense, and apprehensive as well as and more likely to plan, act responsibly, and deny hostility toward others (Robins, John, Caspi, Moffitt, & Stouthamer-Loeber, 1996; Du Toit & Duckitt, 1990; M. Henderson, 1983a, 1983b; Hershorn & Rosenbaum, 1991). Early theories posited OC violence as stemming from an accumulation of repressed anger that, with repeated provocation, eventually overwhelmed an OC offender's capacity for self-control and erupted in extreme displays of rage (and acts of violence), quickly followed by the offender's humiliation and despair (Tsytsarev & Grodnitzky, 1995). More recent models, based on research showing that acts of OC violence can be driven by other than emotional factors (Chambers, 2010), have demarcated two subtypes of the violent overcontrolled personality: the inhibited subtype (characterized by reactive violence) and the controlled subtype (characterized by planned violence). Indeed, extensive research (see, for example, Bandura, 1973; Polaschek & Collie, 2004) has shown that anger is neither necessary nor sufficient for violence to occur.

To date, however, the majority of research in forensic settings has been dominated by theory and treatment interventions relevant to undercontrolled offenders (Novaco 1997; Davey, Day, & Howells, 2005), with offense-related programs aiming to improve self-control, typically through cognitive behavioral therapy (CBT), especially anger-management interventions (Hanson, Bourgon, Helmus, & Hodgson, 2009; Hollin, Palmer, & Hatcher, 2013; Tew, Harkins, & Dixon, 2013; Wong & Gordon, 2013). Although CBT anger-management treatment with general

populations suggests at least moderate effect sizes (DiGiuseppe & Tafrate, 2003; Gansle, 2005; Sukhodolsky, Kassinove, & Gorman, 2004), studies with offender populations have been more mixed. Moreover, in a study of 131 violent male offenders participating in anger-reduction treatment (Low & Day, 2015), a group of offenders characterized by undercontrol were the only ones to benefit from treatment.[18] The Peaks Unit at Rampton Hospital in the United Kingdom is in the process of testing a model of treatment (RO DBT for OC offenders, and standard DBT for UC offenders) that accounts for both overcontrolled and undercontrolled coping.

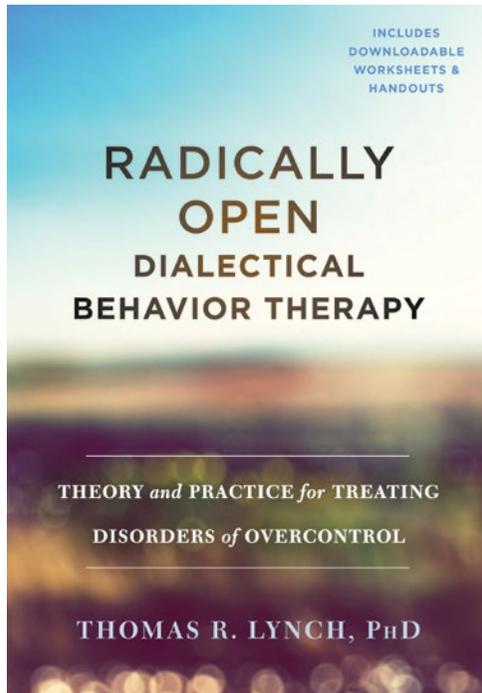## RO DBT for Treatment-Refractory Anxiety

RO DBT is posited to have utility for treatment of resistant-anxiety disorders, although research to date is in its early stages. Effective, empirically validated treatments for anxiety have been developed, but only 60 percent of clients respond to them to any significant degree. Many clients are left with residual symptoms or stay treatment-refractory. Interestingly, research suggests that the clients who may be most resistant to treatment are those with the temperamental and personality traits characteristic of overcontrol. For example, obsessive-compulsive disorder (OCD) and obsessive-compulsive personality disorder (OCPD) share a number of classic OC coping problems, such as extremely rigid patterns of thinking (obsessions and mental rituals in the case of OCD) and difficulty tolerating change or uncertainty (Gallagher, South, & Oltmanns, 2003; A. T. Beck, Freeman, & Davis, 2004). In addition, both OCD and OCPD often involve forms of maladaptive hoarding, such as an inability to discard worn-out or worthless things (Steketee & Frost, 2003).[19]

RO DBT for Autism Spectrum Disorders

In the transdiagnostic model underlying RO DBT, autism spectrum disorders (ASD) are also considered to represent classic problems of overcontrol, including behavioral-cognitive rigidity, lack of emotional expression, and interpersonal aloofness. Research shows that individuals with ASD seek order and predictability, use rule-based methods of coping, exhibit a constricted range of expression, and have poor social cognitive abilities (see Baron-Cohen & Wheelwright, 2003; Lawson, Baron-Cohen, & Wheelwright, 2004). High-functioning ASD individuals are not only aloof and socially withdrawn but also focused on details; they fail to integrate the context or understand the gist of a situation (see Zucker et al., 2007). Preference for detail over global configurations has been repeatedly documented in ASD (for a review, see Happé & Frith, 2006); and, although research is limited, similar information-processing biases appear to characterize AN and OCPD (Zucker et al., 2007). Thus, although research applying RO DBT to ASD has yet to be systematically conducted, the clinical appropriateness of RO DBT for ASD appears to have face validity.

Now You Know…

➤ Too much self-control can be as problematic as too little.

➤ Biotemperamental factors may be the driving force behind excessive self-control because these factors can influence and interfere with perception, learning, and overt behavior at the preconscious level.

➤ Research using RO DBT, alone or in combination with RO skills training and standard DBT, has demonstrated promising results in the treatment of chronic and treatment-resistant disorders.