Tony Rousmaniere, Rodney K. Goodyear, Scott D. Miller, and Bruce E. Wampold

An ounce of practice is worth more than tons of preaching.

—Mahatma Gandhi

Over the past century, dramatic improvements in performance have been experienced in sports, medicine, science, and the arts. This is true, for example, in every Olympic sport (e.g., Lippi, Banfi, Favaloro, Rittweger, & Maffulli, 2008). College athletes in running, swimming, and diving perform better than gold medal winners from the early Olympic Games (Ericsson, 2006). In medicine, the number of diseases that can be treated effectively has steadily increased, while mortality from medical complications has decreased (Centers for Disease Control, 2012; Friedman & Forst, 2007). In mathematics, calculus that previously required decades to learn is now taught in a year of high school (Ericsson, 2006). In the arts, modern professional musicians routinely achieve or exceed technical skill that previously was attainable only by unique masters like Mozart (Lehmann & Ericsson, 1998).

Unfortunately, the same cannot be said of mental health treatment. Although the number and variety of psychotherapy models have grown rapidly, the actual effectiveness of psychotherapy has not experienced the dramatic improvements seen in the fields described (Miller, Hubble, Chow, & Seidel, 2013). For example, in modern clinical trials, cognitive behavioral therapy appears to be less effective than was demonstrated in the original trials from the 1970s (Johnsen & Friborg, 2015). That we have remained on this performance plateau is clearly not due to a lack of desire for improvement—virtually all mental health clinicians want to be more effective. So what have we been missing? How can we get better at helping our clients? In this book, we outline procedures that lead to increasing the effectiveness of psychotherapy.

The Overall Effectiveness of Psychotherapy

First, let's step back to examine the big picture concerning the effectiveness of psychotherapists. Good news: The consistent finding across decades of research is that, as a field, we successfully help our clients. Studies examining the effectiveness of clinicians working across the field, from community mental health centers, to university counseling centers, to independent practice, show that, on average, mental health clinicians produce significant positive change for their clients (Lambert, 2013; Wampold & Imel, 2015). The average psychologically distressed person who receives psychotherapy will be better off than 80% of the distressed people who do not (Hubble, Duncan, & Miller, 1999; Wampold & Imel, 2015). Dozens of studies show that the effects of psychotherapy and counseling are at least as large as the effects of psychotropic medications and that psychotherapy and counseling are less expensive, have fewer troubling side effects, and last longer (Forand, DeRubeis, & Amsterdam, 2013; Gotzsche, Young, & Crace, 2015).

Opportunity for Improvement

Although the big picture is positive, there is room for improvement. For example, in clinical trials, only 60% of clients achieve clinical "recovery," and between 5% and 10% actually deteriorate during treatment (Lambert, 2013). The percentage of clients who terminate care prematurely falls between 20% and 60%, depending on how "prematurely" is defined (Swift, Greenberg, Whipple, & Kominiak, 2012), and these rates have remained largely unchanged for the past five decades.

Furthermore, there is considerable between-clinician variability in effectiveness. Whereas the most effective therapists average 50% better client outcomes and 50% fewer dropouts than therapists in general (Miller et al., 2013), these "super shrinks" (Miller, Hubble, & Duncan, 2007) are counterbalanced by those therapists who produce, on average, no change or may even cause most of their clients to deteriorate (Baldwin & Imel, 2013; Kraus, Caston-guay, Boswell, Nordberg, & Hayes, 2011; Wampold & Brown, 2005). So there is clear room for many therapists to demonstrably increase their effectiveness.

How, then, can clinicians become more effective? Some may assume that the best way to get better at something is simply to do it a lot. A significant body of research documents that musicians, chess players, and athletes, in the correct circumstances, improve with time and experience (at least up to the point of competency; Ericsson & Pool, 2016). However, psychotherapy is a field in which practitioners' proficiency does not automatically increase with experience (Tracey, Wampold, Goodyear, & Lichtenberg, 2015; Tracey, Wampold, Lichtenberg, & Goodyear, 2014). Two large studies have shown that "time in the saddle" itself does not automatically improve therapist effectiveness (Goldberg, Rousmaniere et al., 2016; Owen, Wampold, Rousmaniere, Kopta, & Miller, 2016). One of these studies, based on the outcomes of 173 therapists over a period of time up to 18 years, found considerable variance in the outcomes achieved by the therapists over time. Although some of the therapists were able to continually improve, client outcomes on average tended to decrease slightly as the

therapists gained more experience (Goldberg, Rousmaniere et al., 2016). Another study examined the change in outcomes of 114 trainees over an average of 45 months. As in the Goldberg, Rousmaniere et al. (2016) study, in the Owen et al. (2016) study, there was considerable variance in the outcomes achieved by trainees over time. Although trainees, on average, demonstrated small-size growth in outcomes over time, this growth was moderated by client severity, and some trainees demonstrated worse outcomes over time, leading the authors to observe that "trainees appear to have various trajectories in their ability to foster positive client outcomes over time, and at times not a positive trajectory" (p. 21).

Current Strategies for Improving Effectiveness

What accounts for the failure to improve? Answering that question requires first looking at the four most widely used methods for improving therapist effectiveness: supervision, continuing education (CE), the dissemination of evidence-based treatments, and outcome feedback systems.

Supervision provides trainees with important professional preparation. For example, supervision has been shown to provide basic helping skills, improve trainees' feelings about themselves as therapists and understanding about being a therapist, and enhance trainees' ability to create and maintain stronger therapeutic alliances, the component of therapy most associated with positive outcomes (e.g., Hill et al., 2015; Hilsenroth, Kivlighan, & Slavin-Mulford, 2015; Wampold & Imel, 2015). However, evidence concerning the impact of supervision—as it has been practiced—on improving client outcomes is mixed at best (Bernard & Goodyear, 2014; Rousmaniere, Swift, Babins-Wagner, Whipple, & Berzins, 2016). Indeed, prominent supervision scholars (e.g., Beutler & Howard, 2003; Ladany, 2007) have questioned the extent to which supervision improves clinical outcomes. Summarizing the research in this area, Watkins (2011) reported, "[W]e do not seem to be any more able now, as opposed to 30 years ago, to say that supervision leads to better outcomes for clients" (p. 252).

Continuing education (CE) ("further education" in the United Kingdom) is a second method for improving, or at least maintaining, therapist effectiveness. Many jurisdictions require CE to maintain licensure, certification, or registration necessary for practice. CE is commonly delivered via a passive-learning format, such as lecture or video (perhaps with some discussion). This format may be effective at imparting knowledge about particular topics (laws, ethics, new treatments, etc.), but typically it includes little interactive practice or corrective feedback for participants and thus has questionable impact on actual skill development. Research from CE in medicine has demonstrated that passive-learning formats have "little or no beneficial effect in changing physician practice" (Bloom, 2005, p. 380). Summarizing concerns about the limits of CE, Neimeyer and Taylor (2010) reported, "A central concern follows from the field's failure to produce reliable evidence that CE translates into discernibly superior psychotherapy or outcomes, which serves as the cornerstone of the warrant underlying CE and its related commitment to the welfare of the consumer" (p. 668).

A third prominent method for improving therapist effectiveness that has gained considerable momentum over the past half century is the dissemination of evidence-based treatments (EBTs, also called empirically supported treatments or psychological treatments with research support). Using EBTs to improve the quality of mental health care is based on a two-step process: (a) clinical trials are used to determine which specific therapy models are effective for treating specific psychiatric disorders, and (b) these models are disseminated by training therapists to be competent in the EBTs. Over the years, hundreds of EBTs have been tested in clinical trials for an ever-increasing range of disorders, and the results of these trials commonly show EBTs to be more effective than no treatment. However, there is a paucity of evidence that becoming competent in EBTs improves the effectiveness of individual therapists in actual practice (Laska, Gurman, & Wampold, 2014). For example, Branson, Shafran, and Myles (2015) found no relationship between cognitive behavioral therapy competence and patient outcome. In fact, large studies frequently show that clinicians in general practice achieve the same outcomes as those deemed competent in clinical trials (Wampold & Imel, 2015). In a meta-analysis of clinical trials comparing an EBT to a treatment-as-usual condition, Wampold et al. (2011) showed that when treatment as usual involved legitimate psychotherapy, the outcomes of treatment as usual and EBT were not statistically different. Notably, clinical trials often show more variability in outcomes among clinicians than between treatments, suggesting that more attention is needed to skill acquisition by individual clinicians (based on their personal clients' outcome data) across all treatment models (Baldwin & Imel, 2013; Miller et al., 2007; Wampold & Imel, 2015). In summary, competence in evidence-based treatment models does not appear to be itself sufficient for improving the effectiveness of psychotherapy by individual clinicians in actual practice.

A fourth method for improving therapist effectiveness that has been increasingly adopted over the past two decades is feedback systems, also called practice-based evidence, in which clinicians monitor their clients' progress by examining outcome data session to session. Feedback systems have been shown to improve the quality of psychotherapy, in part by identifying and preventing failing cases (Lambert & Shimokawa, 2011). In fact, two feedback systems—the Partners for Change Outcome Management System (PCMOS, 2013) and OQ-Analyst—have such a powerful impact on client outcome that they are now considered an "evidence-based practice" by the Substance Abuse and Mental Health Services Administration. However, feedback systems have not been shown to lead to the development of clinical expertise for individual therapists (Miller et al., 2013; Tracey et al., 2014). That is, although therapists who receive feedback about particular clients can alter the treatment for those particular clients, receiving the feedback does not appear to reliably generalize to other cases or improve therapists' overall clinical skills.

Each of these methods for professional improvement has clear value. However, despite the attention that has been given to strengthening supervision and training (American Psychological Association, 2015), CE (Wise et al., 2010), the dissemination of empirically based treatments (McHugh & Barlow, 2010), and routine clinical feedback (Lambert, 2010), overall psychotherapy outcomes have not improved over the past 40 years (Miller et al., 2013). Simply put, our field has lacked a successful model for therapist skill advancement. So, we return to our question: How can clinicians become more effective? To help answer this question, let's look beyond our field and see what we can learn from others.

The Science of Expertise

During the past two decades, a growing body of research has examined the methods professionals use to attain expertise (e.g., Ericsson, 1996, 2009). The *science of expertise* has been concerned with identifying how professionals across a wide range of fields—from musicians, to chess players, to athletes, to surgeons—move from average to superior performance. The findings confirm results cited earlier regarding the development of expertise in psychotherapy: Simply accumulating work experience does not itself lead to expert performance (Ericsson, 2006). Rather, researchers have identified a universal set of processes that accounts for the development of expertise as well as a step-by-step process that can be followed to improve performance within a particular discipline (Ericsson, Charness, Feltovich, & Hoffman, 2006).

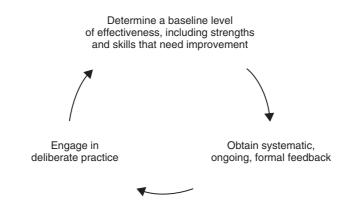
The Cycle of Excellence

Informed by findings reported by researchers (Ericsson, 1996, 2009; Ericsson, Charness, Feltovich, & Hoffman, 2006; Ericsson, Krampe, & Tesch-Romer, 1993) and writers (Colvin, 2008; Coyle, 2009; Shenk, 2010; Syed, 2010) on the subject of expertise, Miller et al. (2007) identified three components critical for superior performance. Working in tandem to create a "cycle of excellence," these components include:

- 1. Determining a baseline level of effectiveness, including strengths and skills that need improvement;
- 2. Obtaining systematic, ongoing, formal feedback; and
- 3. Engaging in deliberate practice. (See Figure 1.1.)

A brief description of each step follows.

In order to improve, it is essential to know how well one fares in a given practice domain, including strengths and skills that need improvement. Top performers, research shows, are constantly comparing what they do to their own "personal best," the performance of others, and existing standards or baselines (Ericsson, 2006). As reviewed, in the realm of





psychotherapy, numerous well-established outcome measurement systems are available to clinicians for assessing their baseline (Miller et al., 2013). Each of these systems provides therapists with real-time comparisons of their results with national and international norms (Lambert, 2010; Miller, Duncan, Sorrell, & Brown, 2005). Specific clinical strengths and skills that need improvement can be identified by supervisors, trainers, or peers, depending on the developmental level of the therapist.

The second element in the Cycle of Excellence is obtaining formal, ongoing feedback. Feedback comes from two sources: (a) empirical outcome measures and (b) coaches and teachers—in psychotherapy, these often are referred to as supervisors—whose job it is to identify the skills that need to be developed and provide specific suggestions and training experiences specifically designed to enhance the individual's performance. High-level performers, it turns out, both seek out and have more access to such mentoring from recognized experts (Hunt, 2006). As discussed earlier, research has shown that ongoing feedback from supervisors can improve trainees' clinical skills, such as the ability to build a strong therapeutic working alliance (e.g., Hill et al., 2015; Hilsenroth, Ackerman, Clemence, Strassle, & Handler, 2015).

Although feedback is necessary for improvement, it is not itself sufficient. Creating a Cycle of Excellence requires an additional essential step: engaging in deliberate practice (Ericsson, 2006). Briefly, this type of practice is focused, systematic, and carried out over extended periods of time. Generally, it involves identifying where one's performance falls short, seeking guidance from recognized experts, setting aside time for reflecting on feedback received, and then developing, rehearsing, executing, and evaluating a plan for improvement (Ericsson, 1996, 2006; Ericsson et al., 1993). Deliberate practice involves a tight focus on repetitively practicing specific skills until they become routine. Because it requires sustained concentration and continuous corrective feedback outside the trainee's comfort zone, deliberate practice typically is not enjoyable or immediately rewarding (Coughlan, Williams, McRobert, & Ford, 2013; Ericsson & Pool, 2016). Deliberate practice intentionally causes a manageable level of strain to stimulate growth and adaptation: "[E]lite performers search continuously for optimal training activities, with the most effective duration and intensity, that will appropriately strain the targeted physiological system to induce further adaptation without causing overuse and injury" (Ericsson, 2006, p. 12). For these reasons, deliberate practice is distinctly different from the two activities most common for therapists: routine performance and passive learning, as illustrated in Table 1.1.

How Much Practice Is Enough?

Elite performers across many different domains, including professional musicians, athletes, and chess players, devote hours to deliberate practice every day, often including weekends (Ericsson, 1996, 2006; Ericsson et al., 1993). Researchers have found that achieving expert performance does not just take a few years of training but rather requires much more effort—thousands of hours of deliberate practice, often requiring 10 to 30 years of sustained effort and focus (Ericsson, 2006). Furthermore, research indicates that continued deliberate practice throughout the career span is required for maintenance of expert performance (Ericsson, 2006).

Activity	Definition	Examples	Goal	Characteristics
Routine performance	Simply performing work as usual	Providing therapy	To earn an income by providing a service	Often feels enjoyable and immediately rewarding
Passive learning	Learning without a practice and feedback component	Attending lectures Reading about psychotherapy models	To build general knowledge about models, theories, and skills	May be enjoyable and feel immediately rewarding
Deliberate practice	Repetitively practicing specific skills with continuous corrective feedback	Reviewing videos of therapy sessions with expert providing feedback Repeatedly role-playing solutions to mistakes made in videotaped sessions	To address knowledge deficits specific to therapist; works exactly at therapist's performance threshold; makes specific skills routine and automatic by moving performance into procedural memory	Feels challenging and hard; not inherently enjoyable or immediately rewarding

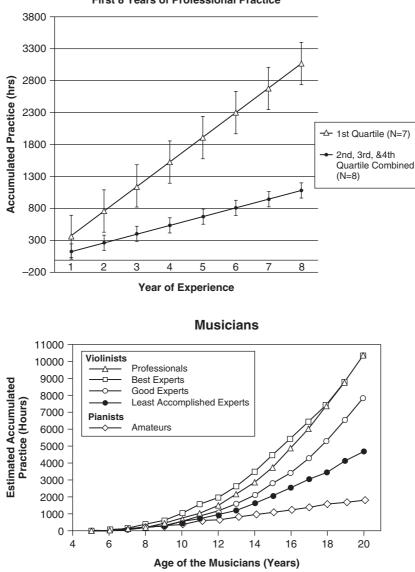
Table 1.1 Comparison of routine performance, passive learning, and deliberate practice.

The concept of the "10,000-hour" or "10-year rule" was brought to popular awareness by the book *Outliers* (Gladwell, 2008), referring to the amount of time necessary to become an expert in a field. (Research actually has found that the number of hours required for mastery varies by field; Ericsson & Pool, 2016.) However, a common misconception is that thousands of hours of *routine work experience* lead to expert performance. In contrast, researchers have found something much more challenging: Thousands of hours of *deliberate practice*, on top of hours spent in routine work performance, usually are required for expert performance.

Could the same process apply to mental health professionals? Chow, Miller, Seidel, Kane, and Andrews (2015) recently examined this question by surveying a group of therapists about the amount of time and effort they dedicated to deliberate practice. Their findings are strikingly similar to what expertise researchers discovered about other fields: Highly effective therapists devoted 4.5 times more hours to activities specifically designed to improve their effectiveness than less effective therapists (Chow et al., 2015). Figure 1.2 compares the findings about therapists from Chow et al. (2015) with the findings from a similar study about violinists (Ericsson et al., 1993).

Unfortunately, to date, professional training programs have encouraged deliberate practice to a very limited extent, despite the recognition that training should be "sequential, cumulative and graded in complexity" (Commission on Accreditation, 2013, p. 7). Opportunities to engage in deliberate practice become even fewer once clinicians complete their training. For most therapists, a serious focus on skill acquisition ends at the beginning of their career, right after graduate school. As seen in Figure 1.3, performance of the typical therapist does not improve through the professional career (i.e., after professional training), a result supported by longitudinal study of therapist outcomes (Goldberg, Rousmaniere

Therapists



Estimated Accumulation of Solitary Practice in the First 8 Years of Professional Practice

Figure 1.2 Comparing the relationship between the hours of deliberate practice and improved performance for therapists and violinists. Sources: Chow et al. (2015, p. 342) and Ericsson et al. (1993, p. 379).

et al., 2016). It appears that students in graduate training acquire skills (e.g., Hill et al., 2015) and improve their outcomes over the course of training, although the improvement in outcomes may be quite gradual and not consistent (Owen et al., 2016). It is worth noting that even for domains where expertise is clearly visible (e.g., musicians, athletes, chess players),

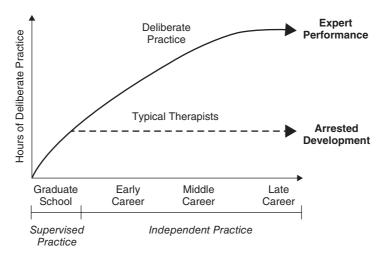


Figure 1.3 Improved performance via deliberate practice.

few achieve a level recognized as expert. Many of us are passably good musicians (we might sing or play guitar at gatherings or religious services), but we are clearly not in an elite group. Those who are elite, regardless of natural talent, have engaged in deliberate practice.

Bringing the Science of Expertise to Psychotherapy

Our goal for this book is to bring the science of expertise to the field of mental health. We do this by proposing a model for using the Cycle of Excellence throughout therapists' careers, from supervised training to independent practice.

Stage 1: Deliberate Practice in Supervised Training

The first major stage of clinicians' careers is intensive formal training, with the goal of achieving professional competency. Trainees in this stage work under supervision. Supervision, one of the four methods of development discussed earlier, is a relationship in which a more senior clinician monitors and guides a trainee's work in order both to facilitate trainee development and to ensure quality of client care (American Psychological Association, 2015; Bernard & Goodyear, 2014). Supervision provides a strong yet flexible relationship in which a seasoned expert can identify errors and the skills necessary for improvement, on a case-by-case basis. Supervisors can provide the essential ingredients for deliberate practice (McMahan, 2014) by:

- 1. Explaining and demonstrating models for effective practice (e.g., cognitive behavioral therapy or psychodynamic psychotherapy);
- 2. Determining each therapist's zone of proximal development (i.e., their exact threshold of understanding and opportunity for improvement);
- 3. Providing corrective feedback and guidance in style that is congruent and accessible to the learner;

- 4. Offering emotional encouragement to boost the learner's morale and buffer against the emotional challenges inherent in deliberate practice (Duckworth, Kirby, Tsukayama, Berstein, & Ericsson, 2011); and
- 5. Teaching trainees how to work appropriately within various professional domains (clinical, legal, administrative, etc.).

During their first few years of graduate school, trainees are not only learning their craft but also being socialized into the culture of their field. Supervision is the perfect opportunity to instill the habits and attitudes necessary for a "culture of expertise" that will help clinicians use deliberate practice throughout their careers.

Stage 2: Deliberate Practice in Independent Practice

After clinicians complete their formal training and become licensed, they move into the second (and final) major stage of their career: independent practice. At this point, they become responsible for their own learning, which generally can be of several types (Lichtenberg & Goodyear, 2012): incidental learning (i.e., spontaneous, unplanned learning that might occur through, e.g., reviewing a manuscript or hearing a radio interview with an expert); CE experiences; and intentional, self-directed learning. Deliberate practice concerns that third type of learning and has the goals of maintaining competency and gradually developing mastery of the craft. The mechanisms to support deliberate practice are varied in this stage, and include:

- advanced training with experts,
- skill assessment and case consultation with experts or peers, and
- solo study (e.g., watching videotapes of one's own work).

Table 1.2 describes the different goals, settings, areas of focus, and methods of deliberate practice for each career stage.

	Deliberate Practice				
	Goals	Settings	Areas of Focus	Methods	
Career Stage 1: Supervised Training	Achieve professional competency	Under supervision	Attain competency in all basic skills	Videotape review, clinical role-plays, assigned homework, etc.	
Career Stage 2: Independent Practice	Assess skills, maintain competency, develop expertise, leading to mastery of craft	In consultation with experts, peers, and solo study	Develop advanced skills in areas of specialty Address specific deficiencies	Videotape review with experts, peers, and by oneself Advanced training with experts, self-study, etc.	

Table 1.2 Deliberate practice goals, settings, areas,	and methods across the career span.
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Sources of Motivation to Engage in Deliberate Practice

Students enter training programs in the mental health professions with excitement. They are highly motivated to seek and capitalize on learning opportunities. But as Stoltenberg and McNeill (2010) have discussed, students' motivation fluctuates across time. It is our impression that most clinicians remain intellectually curious throughout their professional lives but, once they attain basic competence, the curiosity is manifest more in diffuse ways than in focused ways. As discussed, deliberate practice is hard work, and learners typically find it both challenging and inherently unpleasant (Duckworth et al., 2011; Ericsson, 2006).

Researchers have identified a subset of very high-achieving therapists who do engage in deliberate practice (Miller et al., 2007, 2013). They demonstrate grit, which is "perseverance and passion for long-term goals" (Duckworth, Peterson, Matthews, & Kelly, 2007, p. 1087) and have "the capacity to stay committed to a challenging, far-off, but 'sweet' goal" (Duckworth et al., 2011, p. 174). Indeed, Duckworth et al. (2011) found that level of grit predicted the extent to which spelling bee competitors engaged in deliberate practice and, in turn, how they performed. Given the challenges of sustaining internal motivation to engage in the deliberate practice necessary to develop expertise, both institutional support and effective mechanisms of accountability are essential to encouraging it (Goodyear, 2015). This is especially true for licensed clinicians who can be tempted to "coast" instead of engaging in ongoing deliberate practice. Recent research at a community mental health center in Canada has shown that agency-wide support for deliberate practice, led by senior management, can improve client outcomes (Goldberg, Babins-Wagner et al., 2016). In this book, we describe evidence-based methods that treatment centers can use to support clinicians' engagement in the Cycle of Excellence.

About This Book

The goals of this book are to provide clinicians and clinical supervisors with (a) the theory of deliberate practice and the Cycle of Excellence, (b) a new model to integrate deliberate practice into clinical training and independent practice, and (c) case examples of how deliberate practice is being used across a range of psychotherapy settings. This book is organized into four parts.

Part I: The Cycle of Excellence reviews the science of clinical outcomes, expertise, and supervision and proposes a new model for integrating deliberate practice into clinical practice at every stage of a career, from supervised training to independent practice.

Part II: Tracking Performance focuses on an essential ingredient of deliberate practice: empirically tracking therapist effectiveness. In the field of mental health, this means measuring client outcome, which has the full richness and complexity of the human experience. The chapters in this part describe accessible methods supervisors and clinicians can use to track client outcomes at the case, therapist, and agency levels, using both quantitative and qualitative methods.

Part III: Applications for Integrating Deliberate Practice into Supervision explores innovative programs for using deliberate practice to enhance psychotherapy training across a

broad spectrum of areas, including psychodynamic psychotherapy, cognitive behavioral therapy, agency-level improvement, and CE. This part also includes a chapter that describes how deliberate practice has been integrated into medical education, presented as a model and learning opportunity for the field of mental health.

Part IV: Recommendations concludes the volume by pulling together the previous chapters and proposing steps that can be taken to contribute to the mission of improving psychotherapeutic expertise.

Questions from John Norcross, PhD

For each chapter in this volume, we editors have posed several questions to the authors that a critical reader might ask. Answers by the chapter authors appear at the end of each chapter. For those chapters in which one or two of us were authors, others of our team took the role of asking challenging questions.

Because the four of us all were authors of this chapter, we reached outside the team and asked John Norcross, a prominent psychotherapy researcher and trainer, to pose the questions to us. In his characteristic way, he asked questions that were both insightful and rigorous.

Question #1. There is yet but a single research study attesting to the effectiveness of deliberate practice among psychotherapists in routine care. You review the research literature on the value of deliberate practice among other professionals, but those professions are notable for working by themselves and with inanimate objects (e.g., chess pieces, musical instruments), without the reciprocal influence of a client/patient. How do you respond to those who argue that you are recommending a practice (and writing an entire book) well beyond the supportive research evidence with psychotherapists?

Answer from Editors: We wholeheartedly agree with this question's underlying implication that clinical supervision and training methods should be subject to rigorous empirical testing. Indeed, we are arguing for a stance of empirical skepticism toward the effectiveness of *all* methods of clinical training, old and new. Too many of the field's current supervision practices are in wide use because they have been handed down via tradition rather than having been intentionally adopted on the basis of the research evidence (e.g., Ellis & Ladany, 1997).

In this volume, we are proposing that clinical supervision, training, and CE be reformed along the *principles* of deliberate practice. This marks a significant departure from the current approaches to clinical supervision and training. For example, we propose (a) to evaluate clinical supervision and training by the impact on client outcomes (rather than adherence and competence in a treatment model); (b) to emphasize active learning methods, such as repetitive behavioral rehearsal of clinical skills via role-plays with corrective feedback (rather than discussions about psychotherapy theory); and (c) that clinicians receive personal performance feedback continuously throughout their career (rather than stopping when they are licensed). The question of whether these principles that have been shown to improve performance across a range of fields apply as well to the practice of psychotherapy is valid. Psychotherapy *is* a unique pursuit by virtue of its interpersonal context and demands. When we cite evidence from other fields such as music, athletics, or medicine, our goal is to focus on the learning processes rather than any implied similarities between psychotherapy and the functions of those other fields, to make the case that the principles of deliberate practice improve skill acquisition apply across a wide variety of fields and tasks. (For example, Zen Buddhism and other spiritual traditions have relied on deliberate practice for millennia.) Each of these fields is unique, and each has developed its own specific methods of deliberate practice to specifically address its particular pedagogic challenges.

All these fields rely on a human being having learned a particular skill or set of skills. The large body of research that forms the science of expertise identifies principles that improve the effectiveness of human skill acquisition, and we argue this research applies to psychotherapy, including the development of necessary interpersonal skills (e.g., Anderson, McClintock, Himawan, Song, & Patterson, 2015; see Chapter 3).

In short, our primary concern is with new principles of supervision and training. The methods we suggest for implementing these principles are largely drawn from the research evidence (directly or as extrapolations). The next task for our field, though, is for researchers and clinicians to develop new methods of supervision and training, based on these principles, and then subject them to rigorous empirical testing and evaluation in both clinical labs and actual practice.

Question #2. Your "cycle of excellence" bears strong resemblance to other, well-established models of active learning, such as that by David Kolb. What distinguishes your cycle from those of others, and what specific research support does your model enjoy?

Answer from Editors: This is an excellent question. And because others likely will wonder about it as well, we welcome the chance to address it. At the heart of the Cycle of Excellence model is the assumption that people learn from observing and critiquing their work. This same assumption has informed training since at least the time of Dewey (1938). In fact, other prominent models, such as those of Kolb (e.g., Kolb & Fry, 1975) and Schön (1988), owe a huge intellectual debt to Dewey's observations on the role of experience.

But the Cycle of Excellence differs from these models in at least two fundamental ways. The first of these concerns the essential role that a coach or supervisor has in providing feedback and direct instruction. This is in contrast with discovery learning, which so often is assumed to be common to models such as that of Kolb or Schön. Whereas discovery learning has an intuitive appeal, Kirschner, Sweller, and Clark (2006) offered a scathing critique of its effectiveness.

The second fundamental difference is in the role that intentional practice is assumed to play in skill development. Those models stress the cognitive processes that lead to new understandings about therapists' work and how they then might modify what they do. The models do not, though, focus on the hard work of really practicing and consolidating skills that lead to effective psychotherapy practice.

What we are proposing is that the Cycle of Excellence and deliberate practice emphasize maximizing opportunities for behavioral rehearsal and continuous corrective feedback. The goal is to give trainees ample opportunity to experiment with specific skills, so they can fail and get correction many times before trying the skills with real clients. This can be accomplished through the use of role-plays and other behavioral training drills in supervision. To illustrate, our model aims to be more like how one learns to drive (behavioral rehearsal with continuous corrective feedback), while traditional supervision is more like how one learns philosophy (discussing theory). These two models are not mutually exclusive; trainees, of course, need to learn psychotherapy theory. Rather, we are suggesting that behavioral rehearsal with continuous corrective feedback be given a stronger emphasis within the supervision hour than it has been given previously.

Question #3. Many researchers have indeed questioned the value-added benefit of clinical supervision on client outcomes. At the same time, the supervision research and supervision guidelines have converged on a series of best practices, which certainly contain the recommendations for supervision advanced in your chapter. Can you explain how your recommendations (e.g., demonstrate effective practice, provide corrective feedback, offer emotional encouragement) differ from those generic best practices?

Answer from Editors: The supervision "best practices" that various professions have developed (e.g., American Psychological Association, 2014; Association for Counselor Education and Supervision, 2011) represent the wisdom of supervision experts and stand as expected supervision competencies. It is inevitable, then, that we would incorporate them in our model as minimal expectations for effective supervisory practice. To illustrate: All of the available supervision guidelines stress the importance of supervisors directly observing their supervisees' work with clients in contrast to the current dominant practice of relying on supervisees' self-reports of their work. Directly observing supervisees' work is imperative in our model, which assumes that expertise development is only as effective as the feedback available to guide it. But our model is not limited to that type of feedback and requires, for example, the use of information from routine outcome monitoring. In this way, our model goes beyond expected best practices.

This question also implicitly raises the important distinction between competence and expertise. Competence, as either a supervisor or a psychotherapist, is about performing work in an expected way. When professionals are held accountable for competence, they are responsible for what Lerner and Tetlock (2003) describe as *process accountability* (see also Goodyear, 2015): To what extent is this person executing a skill set as expected, regardless of the obtained outcomes?

But in our model, expertise development is assessed in terms of client outcomes. Therapists and supervisors are held to outcome accountability (Lerner & Tetlock, 2003): To what extent is this person achieving intended outcomes, regardless of how she or he performed? Both forms of accountability are important, although we give outcome accountability the greater weight: Process should not overshadow outcome. This is especially true as one does not predict the other (see, e.g., Webb, DeRubeis, & Barber, 2010). This book is concerned primarily with ways that psychotherapists can move from competence to expertise. Although we give it less emphasis in the book, we assume as well that supervisors would commit to a similar process of development and that the measure of their evolving expertise would be client outcomes, just as it is with therapists.

Question #4: Figure 2.3 in Chapter 2 shows huge growth in performance among "experts" using deliberate practice. Is this figure based on an actual study, in which the experts achieved twice the performance/client outcomes of "typical therapists"? Or perhaps the figure just represents a conceptual promise?

Answer from Editors: As the growing research on implementation science makes clear, *all* research offers a "conceptual promise." There is no guarantee of results. Differences in contexts, clients, management, and providers make any simple transfer and application of research findings to real-world clinical settings challenging in the best of circumstances. More, as evidenced by the study reported in Figure 2.3, deliberate practice is hard work, the gains are slow in coming and not immediately rewarding. A further threat is that practitioners with average results already consider themselves as effective as the best while devoting significantly less time to efforts aimed at improving their outcomes. At the same time, this same graph, together with findings from other studies cited, shows that the most effective therapists engage in significantly more deliberate practice than their more average counterparts. Indeed, with clients of therapists in the top quartile achieving outcomes more than *twice* the size of those in the bottom (Wampold & Brown, 2005), deliberate practice serves to benefit both clinicians and recipients of mental health services.

In sum, the promise of deliberate practice depicted in Figure 2.3 is indeed real. However, its realization depends on two critical factors: (a) continuous effort and (b) long-term commitment. Although a number of studies are in the works, knowledge regarding the application of deliberate practice to improving performance as a psychotherapist is still very much in its infancy. Evidence regarding what is required for helping practitioners sustain the commitment necessary to realize the gains is, for all points and purposes, unavailable. Until a time in the future, practitioners and the field will be reliant on studies from other domains (e.g., sport, music, medicine, computer programming, teaching).

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