CHAPTER 1

Effective Treatments for PTSD

Guiding Current Practice and Future Innovation

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Empirically supported interventions to prevent and treat posttraumatic stress disorder (PTSD) and related conditions for people of all ages have been the focus of much attention over the last two decades, resulting in a substantial evidence base to inform clinical decisions. In this vein, there has been a significant accumulation of evidence since the last edition of *Effective Treatments for PTSD*; hence the timeliness of this third edition. This body of evidence has the potential to provide much-needed guidance to clinicians and mental health service systems, as well as to people with PTSD and their families. Concurrent with burgeoning empirical evidence on effective and ineffective interventions, there has been a substantial increase in awareness among the broader community regarding the psychological effects of trauma exposure. The mental health of our serving personnel, veterans and first responders, survivors of sexual and physical assault, family violence and childhood abuse, survivors of natural and man-made disasters, and other potentially traumatized people has become a high-profile issue in modern society. The topic receives widespread coverage in the media, both in current affairs and fictional drama. This high level of community attention has placed increasing pressure on clinicians, health service agencies, employers, and government to provide timely, accessible, and effective care.

Although increased recognition of the effects of trauma and a more robust knowledge base on interventions might seem optimistic, we face significant challenges in our field. Despite the evidence base—the existence of demonstrably effective interventions—most people at risk of or with PTSD still do not receive an evidence-based intervention. This is true not only in low- and middle-income countries (Tol et al., 2014), but also in developed

countries with comprehensive and sophisticated mental health systems (Rosen et al., 2017; Sripada, Pfeiffer, Rauch, Ganoczy, & Bohnert, 2018). There are several possible explanations for this, including poor practitioner access to clinical training and supervision in evidence-based practices, as well as the limited effectiveness and high cost of dissemination (Foa, Gillihan, & Bryant, 2013). An important related factor, however, remains a reticence by some clinicians to embrace these approaches. This may be due to a lack of confidence in their skills to deliver the intervention and, perhaps, to contain the potential distress that might accompany a trauma-focused psychological intervention. It may also be driven by misconceptions and misunderstandings about these evidence-based practices, and concerns about how translatable and generalizable the rigorous protocols used in research trials are for their own clinical practice. This book attempts to address some of those concerns, bridging the gap between (1) research protocols that form the basis of studies included in the evidence review that underpins the recommendations in the recently published *Posttraumatic Stress Disorder Prevention and Treatment Guidelines* (published by the International Society for Traumatic Stress Studies [ISTSS] in 2018) represented in this book and (2) delivery of evidence-based practices in routine clinical practice.

The purpose of this book, therefore, is not only to summarize the research evidence base and resulting recommendations reported in the ISTSS guidelines, but to expand upon that evidence and operationalize the recommendations to guide clinicians in implementing evidence-based practices. In doing so, the authors recognize the limitations of the research and go beyond it to provide practical, clinically informed advice on how best to use and understand the recommendations in a way that is accessible and useful for clinicians and health service agencies. Consequently, this book differs from both earlier evidence summaries and clinical treatment manuals by using the evidence base as a starting point, discussing the implementation of those treatments and practices that have been shown to work, and going beyond the evidence to discuss the challenges and limitations of delivering evidence-based practices in routine clinical practice. It is designed to be practical, useful, and applied, optimizing the value of the ISTSS guidelines for those tasked with delivering evidence-based practices. It aims to address the nuances of delivering those treatments with different populations and what to do when things do not go as planned or hoped.

The following chapters seek to improve our understanding of the nature, epidemiology, and assessment of traumatic stress, as well as patterns of recovery and long-term outcomes. Each of the prevention and treatment chapters aims to summarize, and improve our understanding of, the relevant guideline findings and recommendations, and in the case of chapters on combinations of psychological and pharmacological interventions and on complex PTSD and comorbidity, to consider important clinical presentations and approaches that were not covered by the scoping questions posed for the guidelines. These prevention and treatment chapters explore how the recommendations might be implemented in clinical practice, across

diverse settings and with a broad range of trauma-affected populations. The authors endeavor to explore when and why things go wrong in treatment, why some people do not respond, when we might stop trying a particular approach, and what to do at that point. Later chapters draw out the common elements of effective evidence-based practices, the nuances of these common elements, and their implications for clinicians. The final chapters cover health economics, trying to address the question of "value for money," and consider what the future might hold in areas such as e-health, personalized medicine, and implementation and training.

Overview of the Contents of This Book

The introductory chapters of this book provide background information on the nature and epidemiology of PTSD and other mental health responses to trauma, as well as screening and assessment. Chapter 2 covers the nature of trauma and its sequelae, clinical presentations including comorbidity, and epidemiological issues in adults, and Chapter 3 explores clinical presentations, epidemiology, and developmental considerations in children and adolescents. It is clear from these contributions that the science is evolving as we continue to learn more about the nature and epidemiology of traumatic stress reactions. Increasingly large datasets, combined with expanding computational power, are providing opportunities to answer more complex and sophisticated questions about symptom profiles, risk and protective factors, and recovery trajectories. The fact that we can now devote a whole chapter in this area to children and adolescents is testament to our growing knowledge and understanding of developmental considerations in human responses to trauma exposure. Similarly, Chapter 4 covers screening, assessment, and diagnosis in adults, while Chapter 5 addresses those questions for children and adolescents, again highlighting the importance of paying appropriate attention to developmental issues. Both of these chapters explore a range of diagnostic issues, including those associated with the transition from the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; American Psychiatric Association, 2000) to the fifth edition (DSM-5, American Psychiatric Association, 2013) and the differences between DSM-5 and the 11th revision of the *International Classification of Diseases* (ICD-11; World Health Organization, 2018). This latter comparison is important, since the ICD-11 has taken quite a different approach to defining the essential characteristics of a PTSD diagnosis and has introduced the new, parallel diagnosis of complex PTSD. Although it is, perhaps, too early to comment on the potential impact of these differences in diagnostic nomenclature for treatment recommendations, it is an important question to be addressed in future treatment outcome studies. Chapter 6 provides a summary of the guideline rationale, process, and methodology, before Chapter 7 outlines the specific guideline recommendations.

The next three chapters focus on prevention and early intervention. Chapters 8 and 9 discuss the guideline recommendations and implications for clinicians of psychological and pharmacological prevention and early interventions following trauma exposure for adults. Again, recognizing the importance of development, Chapter 10 addresses those issues in child and adolescent populations. These chapters highlight the current state of the evidence for preventive interventions and make recommendations for future directions. It is clear that prevention research in universally applied interventions is in its infancy and, at this stage, the data are not encouraging. Early psychological intervention for those who have developed symptoms, however, has a much more positive evidence base. These chapters provide an opportunity to explore the different theoretical models that underpin psychological and pharmacological early interventions, raising intriguing questions about the mechanisms that may underpin recovery.

The next section of the book discusses the guideline recommendations for the treatment of PTSD and related conditions in adults, along with the implications for clinicians. Trauma-focused psychological treatments have the strongest level of empirical support in the treatment of PTSD. The section begins with an overview chapter that highlights the commonalities across the four approaches with the largest body of research support: cognitive processing therapy (CPT; Resick, Monson, & Chard, 2017), cognitive therapy for PTSD (CT-PTSD; Ehlers, Clark, Hackmann, McManus, & Fennell, 2005), eye movement desensitization and reprocessing (EMDR) therapy (Shapiro, 2018), and prolonged exposure (PE; Foa, Hembree, & Rothbaum, 2007; Foa, Rothbaum, Riggs, & Murdock, 1991). The chapter also identifies some of the issues with which clinicians commonly struggle, as well as discussing when and why these interventions do not always seem to be effective. These and other clinical nuances are discussed in the subsequent chapters on each specific intervention, but this chapter aims to extract the common elements. It also addresses the implications for clinical practice of having four strongly recommended first-line psychological treatments.

Chapters 12, 13, 14, and 15 discuss the guideline recommendations and implications for clinicians of PE, CPT, EMDR therapy, and CT-PTSD in more detail. These chapters strive not only to describe the intervention and the available empirical support, but also to go beyond those factors to explore the challenges of implementation in routine, real-world clinical practice. The authors recognize that, although these remain the first-line treatments of choice for PTSD, there are limitations and that not everyone will achieve clinically significant benefits. The authors explore why that might be and, more importantly, what we as clinicians might do in those circumstances. These chapters are prefaced by Chapter 11, which outlines the psychological treatment recommendations overall and identifies the common ingredients among these four most strongly recommended treatments. The chapter examines the potentially shared putative mechanisms underlying these four recommended treatments and the implications of these mechanisms for other recommended psychological interventions.

Although trauma-focused psychological treatments have the strongest empirical support and remain the first-line treatment, pharmacological interventions have an important role to play in the comprehensive management of PTSD. Chapter 16 reviews the evidence for pharmacological approaches for adults and discusses the guideline recommendations. The authors recognize that clinicians do not always stick rigidly to the evidence base, with prescribing decisions often being made on the basis of the specific clinical presentation, response to initial pharmacotherapy, and personal preference. To assist clinicians in this difficult process, the authors provide an algorithm—a decision-making tree based on the available evidence, with advice on which medications to try in which order. In routine clinical practice, psychological therapy and pharmacotherapy are often provided concurrently, especially in more complex and chronic cases. Chapter 17 reviews the evidence on combining pharmacological and psychological treatment, discussing the guideline recommendations and their implications for treatment.

With the ubiquitous availability of technology and the Internet, including handheld devices, the field of "e-health" has received increasing attention in recent years. In the trauma field, several online intervention options and mobile "apps" have been proposed as both stand-alone and adjunct treatments. Chapter 18 reviews the emerging evidence on these approaches. Although the authors note the need for more research, it is clear that technological approaches provide intriguing possibilities for improving treatment options, especially for people in rural and remote locations, as well as in boosting the efficacy of more traditional approaches. The authors explore the issues and challenges faced by clinicians who wish to integrate technological approaches into their practice.

Increasing awareness of the mental health effects of trauma has resulted in much greater attention being paid to the quality and accessibility of treatment. Alongside a focus on mainstream approaches, a wide range of alternative interventions to treat PTSD and related conditions has been proposed. Some of these have a track record in the treatment of other conditions, strong theoretical underpinnings, and an emerging evidence base. Others are less well developed, but nevertheless have strong proponents. The challenge for the field is to be open to new ideas and innovations, while still adhering to scientific principles and a commitment to evidence-based treatment (EBT). Chapter 19 explores some of the alternative approaches that show early promise as treatments in their own right, or as adjuncts to first-line treatments with the aim of improving quality of life, and discusses the guideline recommendations in this area. Again, the challenge for clinicians is whether and how to incorporate some of these approaches into their treatment planning and practice.

Although the concept of complex PTSD has been discussed in the literature for many years, it was not until the advent of ICD-11 that the disorder was formally recognized in the diagnostic nomenclature. Chapter 20 discusses the diagnostic criteria and treatment recommendations, before considering the challenges faced by clinicians working in this area.

Chapter 21 discusses the evidence base for psychological and pharmacological treatments for PTSD in adolescents and children. Notably, there has been significant development in the evidence base since the last guidelines were published, and three psychosocial treatments receive strong recommendations. Psychopharmacological treatments have so far not been shown to be effective for children. Although not yet at the same level as interventions for adults, we can be more confident about the efficacy of some approaches now than we were previously.

The final group of chapters are more exploratory in nature. Chapter 22 explores the complex issue of comorbidity and transdiagnostics. A high degree of overlap in symptoms and clinical presentation exists across several of the high-prevalence conditions, and PTSD is no exception. The fact that the disorder is characterized by features of depression, anxiety, and (in many cases) dissociation raises the question of whether current diagnostic systems that conceptualize disorders as discrete categories represent the most useful model. The authors grapple with this issue and discuss the implications for clinicians. Chapter 23 takes this discussion to the next level, exploring the implications of different clinical presentations of PTSD on our conceptualizations of treatment models. The authors argue for a more personalized approach to intervention in the future, with the treatment plan better matched to the specific needs of the individual. They go on to discuss the challenges of progressing this individualized approach, while still retaining a commitment to the scientific method and EBT.

The best PTSD treatments in the world are of little use unless they are adopted by mental health practitioners working in routine clinical settings. Chapter 24 addresses the challenges of dissemination and implementation, exploring what needs to be done in order to improve the uptake of EBTs by clinicians. In a related vein, Chapter 25 reviews the economic implications of the guidelines. Drawing on international data, particularly from the United Kingdom and Australia, the authors highlight the potential economic benefits to be gained by widespread adoption of the guideline recommendations. Finally, Chapter 26 foreshadows future opportunities to advance more sophisticated approaches to understanding the nature and course of human responses to trauma, the mechanisms underlying those different trajectories, and how best to improve our treatments and implement best-practice interventions.

The ISTSS *Posttraumatic Stress Disorder Prevention and Treatment Guidelines* Process

Several clinical practice guidelines now exist to guide the treatment of PTSD and related conditions (American Psychological Association, 2017; Department of Veterans Affairs & Department of Defense Clinical Practice Working Group, 2017; National Institute for Health and Care Excellence, 2005;

Phoenix Australia—Centre for Posttraumatic Mental Health, 2013). Most of these are based on a systematic literature review process that uses clearly defined and internationally agreed-upon methods to collect and collate the research data, critically appraise research studies, and synthesize the findings to generate recommendations graded by the strength of the evidence. The recently published (2018) ISTSS guidelines represented in this book also adopted this approach (Bisson et al., 2019). As such, they embrace currently accepted gold standards for guideline development and represent a substantial change in methodology compared to the two earlier guidelines produced by ISTSS. The latest version provides an important addition to the growing body of evidence-based clinical practice guidelines in the trauma field and provides the platform upon which the chapters in this book build. The authors, who are not only leaders in their particular treatment approaches but also experienced clinicians, recognize that treatment guidelines alone do not change practice. They understand how hard it can be for clinicians to interpret and implement the guideline recommendations in their routine clinical work, and they are acutely aware of the clinical complexity that often confronts practitioners working with the mental health effects of trauma. The fact is that, despite substantial progress in the field of traumatic stress, many questions remain unanswered and many challenges confront those providing treatment.

As highlighted previously, Chapter 6 describes the rationale, process, and methodology used to develop the ISTSS guidelines (ISTSS, 2018), as well as summarizing the guideline recommendations themselves. Briefly, the process followed a rigorous systematic review approach, beginning with the development of explicit scoping questions. In developing the ISTSS guidelines, a systematic review identified 361 randomized controlled trials (RCTs) according to the a priori agreed inclusion criteria. There were 208 meta-analyses conducted, resulting in 125 recommendations (24 for children and adolescents and 101 for adults). An agreed-upon definition of clinical importance and strength of recommendation resulted in 8, *Strong*; 8, *Standard*; 5, *Intervention with Low Effect*; 26, *Intervention with Emerging Evidence*; and 78, *Insufficient Evidence to Recommend* recommendations. Narrative reviews were undertaken and two position papers (one for children and adolescents, and one for adults) were prepared to address current issues in complex PTSD and to make recommendations for further research. The draft recommendations were posted on the ISTSS website during August and September 2018 for a period of consultation by ISTSS members. Feedback from ISTSS members was reviewed and incorporated into the final recommendations, which were approved by the ISTSS Board in October 2018.

The adoption of a systematic review approach to developing clinical practice guidelines helps to ensure transparency and replicability by establishing key elements of the process prior to commencement: scoping questions, inclusion/exclusion criteria for papers, definition of clinical importance, and a recommendation generation algorithm. This rigorous approach

helps to reduce the risk of inconsistency and conscious or implicit bias of committee members influencing the recommendations. It is consistent with an internationally accepted commitment to evidence-based practice and is a fundamental starting point in establishing first-line treatments.

Notwithstanding those benefits, adoption of a systematic review methodology in guideline development also has some limitations. For example, systematic reviews often limit the number of questions that can be addressed, either because they are not asked or because no solid data exist. This may result in some potentially important issues, especially around implementation in clinical practice—for example, in areas such as comorbidity—not being adequately explored. Despite rigorous selection criteria for inclusion, it is possible that methodological differences across studies may influence the interpretation of results and, therefore, the recommendations. Systematic reviews need to decide, a priori, on the primary outcomes of interest—in this case, PTSD symptom reduction. Clearly, in routine clinical practice, other outcomes might be equally (or more) important goals for intervention. Finally, and perhaps most importantly, a focus on RCTs in a systematic review may result in other important evidence being omitted (e.g., large observational cohort studies, nonrandomized controlled studies such as larger uncontrolled program evaluation studies, longer-term follow-ups, and "evidence from practice"). Despite the lack of methodological rigor, those pieces of evidence have the potential to contribute to a more accurate assessment of the effectiveness of a particular intervention in routine clinical practice. By going beyond the systematic review, this book allows the proponents of each approach to draw on that body of data and to recognize the importance of other, real-world factors that may be important to consider in the adoption and utilization of the guideline recommendations. This approach echoes the sentiments of the founders of evidence-based practice when they noted, "Good doctors use both individual clinical expertise and the best available external evidence, and neither alone is enough" (Sackett, Rosenberg, Muir Gray, Haynes, & Richardson, 1996, p. 72).

Summary

This book is designed to be a practical guide for those working with survivors of trauma. The starting point is the systematic review of the research evidence, and the resultant recommendations, contained in the ISTSS (2018) *Posttraumatic Stress Disorder Prevention and Treatment Guidelines*. That document illustrates just how far the field has come since the diagnosis of PTSD was first formally recognized in the diagnostic nomenclature in DSM-III (American Psychiatric Association, 1980) 40 years ago. Equally, we need to recognize the limitations of the research data for practicing clinicians and interpret the guideline recommendations to address the complexity that we routinely see in clinical practice. This book builds on the guidelines, going

beyond the recommendations to make them useful for clinicians, service providers, and health and mental health service systems.

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