Clinician's Guide to Evidence-Based Practice

# Treatment of Depression in Adolescents and Adults

Edited by
DAVID W. SPRINGER, ALLEN RUBIN & CHRISTOPHER G. BEEVERS

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# Clinician's Guide to Evidence-Based Practice Series

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# Contents

# Series Introduction

One of the most daunting challenges to the evidence-based practice (EBP) movement is the fact that busy clinicians who learn of evidence-based interventions are often unable to implement them because they lack expertise in the intervention and lack the time and resources to obtain the needed expertise. Even if they want to read about the intervention as a way of gaining that expertise, they are likely to encounter materials that are either much too lengthy in light of their time constraints or much too focused on the research support for the intervention, with inadequate guidance to enable them to implement it with at least a minimally acceptable level of proficiency.

This is the fourth in a series of edited volumes that attempt to alleviate that problem and thus make learning how to provide evidence-based interventions more feasible for such clinicians. Each volume is a how-to guide for practitioners—not a research-focused review. Each contains in-depth chapters detailing how to provide clinical interventions whose effectiveness is being supported by the best scientific evidence.

The chapters differ from chapters in other reference volumes on empirically supported interventions in both length and focus. Rather than covering in depth the research support for each intervention and providing brief overviews of the practice aspects of the interventions, our chapters are lengthier and more detailed practitioner-focused how-to guides for implementing the interventions. Instead of emphasizing the research support in the chapters, that support is summarized in Appendix A. Each chapter focuses on helping practitioners learn how to begin providing an evidence-based intervention that they are being urged by managed care companies (and others) to provide, but with which they may be inexperienced. Each chapter is extensive and detailed enough to enable clinicians to begin providing the evidence-based intervention without being so lengthy and detailed that reading it is too time consuming and overwhelming. The chapters also identify resources for gaining more advanced expertise in the interventions.

We believe that this series is unique in its focus on the needs of practitioners and in making empirically supported interventions more feasible for them to learn about and provide. We hope that you will agree and that you will find this volume and this series to be of value in guiding your practice and in maximizing your effectiveness as an evidence-based practitioner.

Allen Rubin, Ph.D.
David W. Springer, Ph.D.

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# About the Editors

**David W. Springer, PhD, LCSW,** is the associate dean for academic affairs and a university distinguished teaching professor in the School of Social Work at the University of Texas at Austin, where he is also investigator of the Inter-American Institute for Youth Justice and holds a joint appointment with the Department of Psychology. Dr. Springer received his PhD in Social Work from Florida State University, where he also received a Master of Social Work degree and a Bachelor of Arts in Psychology. Dr. Springer's social work practice experience has included work as a clinical social worker with adolescents and their families in inpatient and outpatient settings and as a school social worker in an alternative learning center with youth recommended for expulsion for serious offenses. His interest in developing and implementing effective clinical interventions continues to drive his work. His areas of interest include: evidence-based substance abuse and mental health treatment with youth; forensic social work with juvenile delinquents; intervention research with adolescents; and applied psychometric theory and scale development. He currently serves on the editorial board of several professional journals and on the National Scientific and Policy Advisory Council of the Hogg Foundation for Mental Health. Dr. Springer has co-authored or co-edited several other books, including: *Substance Abuse Treatment for Criminal Offenders: An Evidence-Based Guide for Practitioners*; *Developing and Validating Rapid Assessment Instruments*; *Social Work in Juvenile and Criminal Justice Settings* (3rd ed.); and *Handbook of Forensic Mental Health with Victims and Offenders: Assessment, Treatment, and Research.* Dr. Springer recently served as chair of a Blue Ribbon Task Force consisting of national and regional leaders, which was charged with making recommendations for reforming the juvenile justice system in Texas. In recognition of his work with the Blue Ribbon Task Force, the National Association of Social Workers (NASW), Texas Chapter/Austin Branch, selected Dr. Springer as the 2008 Social Worker of the Year.

**Allen Rubin, PhD,** is the Bert Kruger Smith Centennial Professor in the School of Social Work at the University of Texas at Austin, where he has been a faculty member since 1979. While there, he worked as a therapist in a child guidance center and

developed and taught a course on the assessment and treatment of traumatized populations. Earlier in his career he worked in a community mental health program providing services to adolescents and their families. He is internationally known for his many publications pertaining to research and evidence-based practice. In 1997 he was a co-recipient of the Society for Social Work and Research Award for Outstanding Examples of Published Research for a study on the treatment of male batterers and their spouses. His most recent studies have been on the effectiveness of EMDR and on practitioners' views of evidence-based practice. Among his 12 books, his most recent is *Practitioner's Guide to Using Research for Evidence-Based Practice*. He has served as a consulting editor for seven professional journals. He was a founding member of the Society for Social Work and Research and served as its president from 1998 to 2000. In 1993 he received the University of Pittsburgh, School of Social Work's Distinguished Alumnus Award. In 2007 he received the Council on Social Work Education's Significant Lifetime Achievement in Social Work Education Award.

**Christopher G. Beevers, PhD,** is an associate professor and director of the Mood Disorders Laboratory (http://www.psy.utexas.edu/MDL) in the Department of Psychology at the University of Texas at Austin. He is also a licensed psychologist in the state of Texas. Dr. Beevers received his PhD in Clinical Psychology from the University of Miami and completed his post-doctoral training in mood disorders research in the Department of Psychiatry and Human Behavior at Brown University. Dr. Beevers' research examines the etiology, maintenance, and treatment of depression. His most recent work examines the effectiveness of a cognitive bias modification program as an adjunctive treatment for depression. He is also currently investigating genetic, neural, and behavioral associations with cognitive vulnerability to depression. Dr. Beevers has received research funding from the National Institute of Mental Health (NIMH) and the Department of Defense. He currently serves on the editorial board of several leading journals in his area of research, including the *Journal of Consulting and Clinical Psychology*, *Behavior Therapy*, *and Cognitive Therapy and Research*. He has been a grant reviewer for national and international organizations, including the National Institutes of Health, Swiss National Science Foundation, Netherlands Organization for Scientific Research, and the National Institute for Health Research (United Kingdom). In 2006 he received the President's New Researcher Award from the Association of Behavioral and Cognitive Therapies. In 2009 he was a Beck Scholar at the Beck Institute for Cognitive Therapy and Research.

# About the Contributors

**David Baruch, MA,** is a PhD student in clinical psychology at the University of Wisconsin–Milwaukee. His clinical interests include the treatment of depression and the integration of spirituality to enhance treatment efficacy of ESTs. David's primary research interests include the development of protocols to maximize homework completion in therapy, to integrate spirituality into ESTs for depression, and to design novel means of training therapists in ESTs.

**William Bowe** is a PhD student in clinical psychology at the University of Wisconsin–Milwaukee. His clinical interests include the treatment of depression, borderline personality disorder, and impulse control disorders using empirically supported interventions. In line with his clinical work, William's primary research interests are the development and dissemination of empirically supported treatments for depression that are culturally adapted for underserved ethnic minority populations.

**Andrew Busch** is a postdoctoral fellow at the Centers for Behavioral and Preventive Medicine at the Alpert Medical School of Brown University. His research interests include behavioral treatments for depression and the adaptation of Behavioral Activation for novel populations.

**Esteban V. Cardemil** is an associate professor at Clark University in Worcester Massachusetts. He received his PhD in clinical psychology from the University of Pennsylvania. His research focuses on the effects of race, ethnicity, and social class on psychopathology, and he has developed a particular focus on the development of prevention interventions for depression. Dr. Cardemil has written extensively about the process of adapting evidence-based practice for different cultural groups, and he is currently the principal investigator of a National Institute of Mental Health–funded grant to examine the help-seeking process for depression among Latino men.

**Jonathan W. Kanter, PhD,** is associate professor, director of the Depression Treatment Specialty Clinic, and Psychology Department Clinic Coordinator at the

Department of Psychology at the University of Wisconsin–Milwaukee. He is also a core scientist with the Center for Addictions and Behavioral Health Research at the University of Wisconsin-Milwaukee. Dr. Kanter has published more than 50 articles and chapters on behavioral activation, behavioral theory of depression, and using the therapeutic relationship in behavior therapy and has presented numerous workshops and talks on these topics. Currently, Dr. Kanter is funded by the National Institute of Mental Health to develop Behavioral Activation for Latinos with depression and is the recipient of an NIMH award to his clinical training program as a Program of Excellence in Empirically Validated Behavioral Treatments.

**James P. McCullough Jr., PhD,** is distinguished professor of psychology and psychiatry at Virginia Commonwealth University where he has worked since 1972. He developed the Cognitive Behavioral Analysis System of Psychotherapy (CBASP) during the early 1970s, the only psychotherapy model constructed specifically for the treatment of the chronically depressed patient. He has conducted psychotherapy research with the chronic patient for almost four decades. Dr. McCullough has served as a principal investigator in three national randomized clinical trials involving more than 2,200 chronically depressed outpatients. In addition, he has participated in the American Psychiatric Association's revisions of the *DSM-IV* and *DSM-V* unipolar mood disorder nomenclature.

**Oswaldo Moreno** is a clinical psychology doctoral student at Clark University in Worcester, Massachusetts. He serves as a graduate research assistant on an NIMH-funded mixed-methods investigation of help-seeking for depression among Latino men. His research interests are in the area of mental health disparities and mental health care in Latinos, as well as religiosity/spirituality among Latinos.

**Cory F. Newman, PhD, ABPP,** is director of the Center for Cognitive Therapy, and associate professor of psychology in psychiatry at the University of Pennsylvania School of Medicine. Dr. Newman is a diplomate of the American Board of Professional Psychology, with a specialty in behavioral psychology, and a founding fellow of the Academy of Cognitive Therapy. Dr. Newman has served as both a protocol therapist and protocol supervisor in a number of large-scale psychotherapy outcome studies, including the Penn-Vanderbilt-Rush Treatment of Depression Projects. Dr. Newman is also an international lecturer, having presented scores of cognitive therapy workshops and seminars across the United States and Canada, as well as 13 countries in Europe, South America, and Asia. Dr. Newman is the author of dozens of articles and chapters on cognitive therapy for a wide range of disorders and has co-authored four books, including *Bipolar Disorder: A Cognitive Therapy Approach* (APA, 2001).

**J. Kim Penberthy, PhD,** is director of training for the Center for Addiction Research and Education and associate professor in the Department of Psychiatry & Neurobehavioral Sciences at the University of Virginia School of Medicine. She is the North

American representative for the CBASP Network International and co-investigator on over ten large NIH-funded psychopharmacotherapy trials for depression and/or addiction. Dr. Penberthy's research focus is on development and implementation of evidence-based treatments for chronic depression as well as for addictions and co-occurring disorders, with a focus on acquisition learning. She conducts and supervises clinical research and practice. In addition, Dr. Penberthy publishes and lectures internationally on these and related topics.

**Paul Rohde, PhD**, is a senior research scientist at Oregon Research Institute (ORI) and has 22 years of experience as a research scientist with a substantive focus on the etiology, treatment, and prevention of adolescent depression and comorbid psychopathologies. Dr. Rohde received his PhD from the University of Oregon in 1988 and has been a licensed psychologist since 1990. He has directed or co-directed 21 federally funded research projects, including five randomized controlled trials (RCTs) evaluating adolescent depression treatment interventions and two RCTs evaluating adolescent depression prevention interventions. His most recent adolescent depression treatment research includes participation in TADS (Treatment for Adolescents with Depression Study), which evaluated the effectiveness of Cognitive Behavioral Therapy (CBT) and fluoxetine for the treatment of adolescent major depression, and his direction of a NIDA-funded study evaluating service delivery methods for integrating CBT and family-based treatment for adolescents with comorbid depressive and substance use disorders.

**Monica Sanchez** is a clinical psychology doctoral student at Clark University in Worcester, Massachusetts. She completed her undergraduate work at the University of California, Berkeley. Using a community participatory approach, her research focuses on understanding the particular mental health needs of minority and disadvantaged communities. She is currently studying the role that cultural definitions of mental illness, in addition to cognitive factors, play in mental health help-seeking for Latinos.

CHAPTER 1

# Introduction: Evidence-Based Practice for Major Depressive Disorder

## Christopher G. Beevers

Major depressive disorder (MDD) is a common, recurrent, and impairing condition that predicts future suicide attempts, interpersonal problems, unemployment, substance abuse, and delinquency (Kessler & Walters, 1998). According to the World Health Organization, 121 million people are currently suffering from MDD and it is a leading cause of disability worldwide among people 5 years old and older. The annual economic cost of MDD in the United States alone is staggering—$70 billion in medical expenditures, lost productivity, and other costs (Greenberg, Stiglin, Finkelstein, & Berndt, 1993; Philip, Gregory, & Ronald, 2003). Further, MDD accounts for more than two-thirds of the 30,000 reported suicides each year (Beautrais et al., 1996). Given this enormous impact at societal and individual levels, there is a clear need to develop and disseminate efficacious treatments for this disorder.

Fortunately, a number of empirically supported interventions are available for depressed adolescents and adults. In-depth descriptions of some of the most established treatments are included in this book—Cognitive Behavioral Therapy (CBT), Behavioral Activation (BA), and Cognitive Behavioral Analysis and System of Psychotherapy (CBASP). We include chapters on the application of CBT with adolescents and adults. Further, we include a chapter on how to apply these interventions to diverse populations, such as people with diverse racial and ethnic backgrounds. Each chapter provides a detailed, clinician-focused guide on how to implement these interventions. A review of the research base for each intervention is included in Appendix A.

Prior to reviewing the contents of each chapter in this introduction, we first provide an overview of how depression is defined, a brief description of its

epidemiology, and then how depression is typically assessed. We then review other treatments (both pharmacological and nonpharmacological) that have empirical support for the treatment of depression but are not included in this volume. We finish with a brief overview of this volume's chapters.

## Major Depressive Disorder: Definition, Epidemiology, and Course

The *Diagnostic and Statistical Manual of Mental Disorders* (4th edition—*DSM-IV*) defines Major Depressive Disorder (MDD) as the presence of five (or more) of the following nine symptoms during the same 2-week period:

1. Depressed mood most of the day, nearly every day.
2. Markedly diminished interest or pleasure in almost all activities (anhedonia).
3. Significant weight loss/gain or decrease/increase in appetite.
4. Insomnia or hypersomnia.
5. Psychomotor retardation or agitation.
6. Fatigue or loss of energy.
7. Feelings of worthlessness (or excessive or inappropriate guilt).
8. Diminished ability to concentrate or make decisions.
9. Recurrent thoughts of death.

Symptoms must be present most of the day, nearly every day, and should represent a significant change from previous functioning. Importantly, one of the nine symptoms has to be either depressed mood or anhedonia. In adolescents or children, irritable mood can be substituted for depressed mood. Less than 5% of depressed adolescents typically endorse anhedonia (Rohde, Beevers, Stice, & O'Neil, 2009), so depressed or irritable mood tends to be the hallmark symptom of adolecent depression. Significant weight loss or gain is typically defined as 5% or more change in body weight in a month when not dieting. These symptoms must cause significant distress or impairment in social, occupational, or other important areas of functioning. Finally, these symptoms should not be attributable to substances (e.g., drug abuse, medication changes), medical conditions (e.g., hypothyroidism), or the death of a loved one.

Recent epidemiological research indicates that the 12-month prevalence rates for MDD was 6.6% (95% CI, 5.9%–7.3%) among adults residing in the United States. Lifetime prevalence for MDD was 16.2% (95% CI, 15.1%–17.3%). Put differently, approximately 13.5 million adults experienced MDD in the past year, and 34 million adults have experienced MDD at some point in their lives. Approximately 51% who experienced MDD in the past year received health-care treatment for MDD, although treatment was considered adequate in only 21% of the cases (Kessler, Berglund et al., 2003). Thus, MDD is a prevalent and pervasive mental health disorder that is unfortunately not treated optimally in the United States.

Obtaining adequate treatment is important, as the course of MDD tends to be relatively prolonged. One of the largest studies of MDD recovery among individuals seeking treatment found that 50% of the sample recovered from MDD by 6 months, 70% within 12 months, and 81% within 24 months. Approximately 17% did not recover within the 5-year follow-up period (Keller et al., 1992). The first 6 months represents a particularly important time period for MDD recovery, as the rate of MDD recovery significantly slows after 6 months. Similarly, Kessler (2009) writes that time to recovery of MDD in nontreatment-seeking populations ''appears to be highly variable, although epidemiological evidence is slim'' (p. 29). One study found that 40% had recovered from MDD by 5 weeks and 90% had recovered within 12 months (McLeod, Kessler, & Landis, 1992). Another study reported that mean time to recovery was 4 months and that approximately 90% had recovered by 12 months (Kendler, Walters, & Kessler, 1997). Taken together, these data suggest that most participants from a community sample recover from MDD within 12 months.

Risk for MDD is especially pronounced during adolescence (Blazer, Kessler, McGonagle, & Swartz, 1994; Lewinsohn, Hops, Roberts, & Seeley, 1993). Prevalence rates range from 10% to 18.5% (Kessler & Walters, 1998). This is especially true for adolescent girls, who are approximately twice as likely to experience depression as adolescent boys (Hankin et al., 1998). Longitudinal studies show that increases in MDD prevalence for women occur at approximately 15 years of age and persist into adulthood (Hankin et al., 1998; Kessler, Berglund et al., 2003; Lewinsohn, Hops et al., 1993; Nolen Hoeksema & Girgus, 1994; Prinstein, Borelli, Cheah, Simon, & Aikins, 2005).

Treatment for adolescents with subthreshold symptoms of MDD may be particularly important, as adolescents with elevated symptoms (but who do not meet criteria for MDD) are at high risk for future onset of MDD. Lewinsohn, Roberts, and colleagues et al. (1994) found that elevated depressive symptoms was one of the most potent risk factors for future MDD onset over the subsequent year out of dozens of risk factors. Seeley, Stice, and Rohde (2009) recently examined a broad array of putative risk factors (e.g., parental support, negative life events, depressive and bulimic symptoms, substance use, attributional style, body dissatisfaction, physical activity, social adjustment, delinquency) for MDD onset in a longitudinal study of 496 adolescent girls 15 to 18 years old. Among 18 variables tested, the strongest predictor of future MDD onset was subthreshold depressive symptoms. Girls with elevated symptoms were at approximately five times greater risk for future MDD onset than girls with low symptoms (28% versus 6%).

Unfortunately, treatment utilization among depressed adolescents is also lacking. Approximately 60% of adolescent with MDD receive treatment (Lewinsohn, Rohde, & Seeley, 1998). Individual outpatient psychotherapy administered by a mental health provider is the most common form of treatment. Adolescents with more severe depression, a comorbid condition, a past history of MDD, a history of suicidal attempts, and academic problems, and females were more likely to receive treatment.

However, those who had received treatment were not less likely to relapse into another episode of depression during young adulthood (Lewinsohn et al., 1998). This suggests that the typical treatment received by depressed adolescents may not have been effective at changing the underlying cause of depression onset.

# Assessment of Depression

A number of questionnaires and diagnostic interviews are available to assess depression symptoms and MDD in adolescents and adults. We review these assessments for adults and adolescents separately.

## Adults

The Structured Clinical Interview for *DSM-IV* Axis I Disorders (SCID) diagnoses is the most common method for determining whether an adult meets criteria for MDD (and many other *DSM-IV* diagnoses). This is a semistructured interview that inquires about current and past symptoms. Length of an SCID interview can be quite variable—individuals with no past or current symptoms can complete the interview in about 15 minutes. Individuals with more complex symptom presentations can take several hours to complete a SCID interview. A typical SCID interview takes about 90 minutes. With adequate interviewer training, the SCID interview has excellent reliability and has been used extensively in depression research. Determining the validity of the SCID is more complex, as it is typically used as the gold standard to determine a diagnosis. Nevertheless, there is ample evidence that an SCID diagnosis converges with diagnoses derived from other diagnostic interviews (First, Spitzer, Williams, & Gibbon, 1995). For more detail on the SCID, see http://www.scid4.org/.

The World Health Organization (WHO) Composite International Diagnostic Interview (CIDI) is a psychiatric diagnostic interview designed to be administered by nonclinicians. The CIDI assesses for most Axis I disorders (including MDD) as defined by the *DSM-IV* and the ICD-10. It also assesses service use, use of medications, and barriers to treatment. There is substantial evidence for the reliability and validity of the CIDI. It has been translated into numerous languages and is typically used in large-scale epidemiological studies (Kessler, Berglund et al., 2003). For more information, see http://www.hcp.med.harvard.edu/wmhcidi/index.php.

The Mini-International Neuropsychiatric Interview (MINI) is another diagnostic interview that was developed jointly by psychiatrists and clinicians in the United States and Europe (Sheehan et al., 1998). It is much briefer than the SCID and CIDI, with an administration time of approximately 20 minutes. It assesses 15 of the most common *DSM-IV* Axis I disorders, including current and past history of MDD. Due to its brevity, it is often used as a screening interview that is subsequently confirmed with a subsequent in-depth diagnostic interview. It also has excellent reliability and validity (Sheehan et al., 1997). For more information, see https://www.medical-outcomes.com/index.php.

A number of self-report and interviewer-based assessments of depression severity are also available. The most commonly used interview-based depression severity assessments with adults include the Hamilton Rating Scale for Depression (HAM-D) and the Inventory of Depressive Symptomatology (IDS). The 17-item HAM-D was originally developed in 1960 and subsequently revised a number of times (Hamilton, 1960). It has been used primarily in antidepressant medication trials. The HAM-D has been criticized on the basis that it has poor content validity (may overemphasize somatic symptoms, which are especially responsive to antidepressant medication treatment), having a nonoptimal response format for many items, several items do not appear to discriminate people at high and low ends of the depression continuum, and other psychometric flaws (Bagby, Ryder, Schuller, & Marshall, 2004).

As a result, a newer interview-based assessment of depression severity, the IDS, is gaining popularity (Rush, Thomas, & Paul-Egbert, 2000). The 30-item IDS (and the 16-item Quick IDS) assess the severity of depression symptoms in the past seven days. The items measure all *DSM-IV* symptoms of MDD, although a total score is typically used to assess depression severity. There is much evidence to suggest that the IDS has good psychometric properties, including good internal reliability, test-retest reliability and adequate content, criterion, and construct validity (e.g., Rush et al., 2003). The IDS has been translated into more than 20 different languages and is used widely in medical research. Items can be added to the IDS to facilitate computation of the HAM-D total score within the IDS interview. Further, there is also a self-report version of the IDS to be completed by patients. The IDS (and its corresponding short and self-report versions) are available for download at http://www.ids-qids.org/index.html.

There are also a number of other excellent self-report assessments of depression severity. The Beck Depression Inventory-II (BDI-II) is a 21-item self-report questionnaire that is among the most commonly used instrument to assess depression severity (Beck, Steer, & Brown, 1996). It is often used in research involving psychological treatments. The BDI-II has demonstrated adequate internal consistency, test-retest reliability, and construct validity (Dozois, Dobson, & Ahnberg, 1998). A score of 12 or less is considered nondepressed, whereas a score of 20 or greater typically indicates moderate or greater depression severity (Dozois et al., 1998). To obtain the BDI-II, see http://www.pearsonassessments.com/HAIWEB/Cultures/en-us/Productdetail.htm?Pid=015–8018–370&Mode=summary.

Alternatively, the Center for Epidemiologic Studies—Depression (CESD) is another common assessment of depression severity (Radloff, 1977). The CESD was developed to be a brief self-report scale designed to measure depression severity in the general (nonpsychiatric) population. It has 16 items that measure the severity of depression symptoms in the past week. It has very good internal consistency and test-retest reliability. Validity was established by correlating the CESD with other depression inventories and clinical ratings of depression (Radloff, 1977). A 10-item version has also been developed (Irwin, Artin, & Oxman, 1999). It is a widely used

depression scale, particularly when the majority of the sample is expected to be currently depressed.

### Adolescents

The Kiddie-Sads-Present and Lifetime version (K-SADS-PL) is a semistructured diagnostic interview designed to assess severity ratings of symptomatology as well as current and past episodes of psychopathology in adolescents according to *DSM-IV* criteria (Kaufman et al., 1997). The full interview assesses more than 35 mental health diagnoses, including MDD. The K-SADS-PL is administered to parents and the adolescent. Other sources of information may also be incorporated (e.g., school reports) into a summary rating. It is typically recommended to start the interview with the adolescent first, followed by the parents. Clinical judgment is required when there are discrepancies in the content of the reports from adolescents and parents. The K-SADS has been found to have acceptable test-retest reliability (k's = .60 – 1.00), inter-rater reliability (k's = .60 –1.00), and internal consistency (alpha's = .68 – .84) for MDD ratings, and to discriminate between disordered and nondisordered adolescents (Ambrosini, 2000; Kaufman et al., 1997; Lewinsohn et al., 1993). For more information, see http://www.wpic.pitt.edu/ksads/default.htm.

The Children's Depression Inventory is a 27-item, self-report assessment of depression severity that was developed for children and adolescents between the ages of 7 and 17 years (Kovacs, 1992). Each item describes a symptom, and the adolescent rates the severity of each symptom over the past two weeks on a 3-point scale. A 10-item version is also available. The normative sample was ethnically and geographically diverse. Internal consistency and test-retest reliability are excellent. There are five subscales (negative mood, interpersonal difficulties, negative self-esteem, ineffectiveness, and anhedonia), although using the CDI total score is the most common approach to assessing symptom severity. For more information on the CDI, see http://www.pearsonassessments.com/pai/.

## Evidence-Based Treatment for Depression: Interventions Not Included in This Volume

There are a number of treatments for depression that have empirical support indicating that the treatment is effective for the treatment of depression. Of course, we preferred to include an in-depth review of each and every one of these treatments in this book. However, this was not practical or feasible. Instead we selected a variety of treatments that have a solid research base, and each chapter provides an in-depth description of a treatment. Rather than inadvertently convey that these are the only effective treatments for depression, we now provide a brief overview of other treatments that have a solid research base that are not included, for one reason or another, in this text.

## Pharmacological Treatments

Several classes of medications are used to treat depression. Three basic types of antidepressant medications include tricyclic antidepressants, monoamine oxidase inhibitors (MAOIs), and serotonin-specific reuptake inhibitors (SSRIs). There are some newer antidepressant medications that do not fit neatly into these categories because they have different mechanisms of action (e.g., venlafaxine and nefazedone). The efficacy rates for these newer antidepressant treatments are comparable to the efficacy rates of SSRIs (Stahl, Entsuah, & Rudolph, 2002).

**Tricyclic Medications** Prior to the introduction of SSRIs, tricyclic medications were the most commonly prescribed antidepressant medications. Although the exact mechanism of action is not completely understood, tricyclic medications reduce the transmission of norepinephrine by blocking its reuptake and allowing for norepinephrine to pool in the synapse. This leads to decreased production of norepinephrine (i.e., downregulation). These medications can take two to eight weeks before a therapeutic effect occurs, which may be due to neurogenesis (nerve growth) in the hippocampus (Santarelli et al., 2003). Tricyclic mediations can produce a number of side effects including blurred vision, dry mouth, constipation, drowsiness, and weight gain. As a result, 40% of patients stop taking these medications, even though with careful management these side effects can disappear. Tricyclic medications improve depression symptoms in approximately 50% of patients; if we exclude patients who stopped taking the medication, improvement rates climb to 70% (Depression Guideline Panel, 1993). Taking excessive doses of these medications can be lethal, so individuals with suicidal tendencies should be monitored closely.

**MAOIs** These antidepressant medications block the enzyme MAO, which degrades neurotransmitters such as serotonin and norepinephrine. As a result, more of these neurotransmitters are available in the synapse, leading to downregulation. MAOIs appear to be as effective as tricyclic medications and have fewer overall side effects (Depression Guideline Panel, 1993). However, people prescribed MAOIs have significant food restrictions. They cannot consume food or drinks that contain tyramine, such as cheese, red wine, or beer. Doing so can lead to significant increases in blood pressure that in some cases can be fatal. MAOIs can also interact with other commonly used drugs, such as cold medicine. As a result, MAOIs are not often prescribed.

**SSRIs** SSRIs are the most commonly prescribed class of antidepressant medication and are generally considered the first choice for antidepressant treatment. These medications block the reuptake of presynaptic serotonin, leaving more available at the receptor site. This facilitates increased serotonin production over time. Although this class of drugs is relatively new, the efficacy of SSRIs is comparable to MAOI and tricyclic medications. Approximately 50% experience symptom improvement,

but depression fully remits in only about 25% to 30% of patients (Trivedi et al., 2006). SSRIs have fewer side effects than the other antidepressant medications, thus accounting for their popularity despite similar efficacy compared to older treatments. Most common side effects include physical agitation, sexual dysfunction, low sexual desire, and sleep difficulties.

## Placebo Response

Although antidepressant medication treatment is a common and accepted form of treatment for depression, there is some controversy about whether it is more effective than pill placebo (Moncrieff & Kirsch, 2005). That is, do antidepressant medications improve symptoms beyond the effect of believing that medication treatment will be effective? A recent study addressed this question using meta-analysis of six studies that compared antidepressant medication to pill placebo (Fournier et al., 2010). In short, this study found that antidepressant treatment was only mildly more effective than placebo for people with relatively low symptoms of depression, whereas a clinically significant benefit of antidepressant medication compared to placebo was observed for patients with more severe forms of depression. Thus, medication treatment may be particularly beneficial for individuals with more severe forms of the disorder. However, this study was based on only six studies (718 patients) involving two antidepressant medications (paroxetine and imipramine), so much more work needs to be done in this area.

## Antidepressant Treatment With Adolescents

Far less is known about the treatment efficacy of antidepressant medication in adolescents. A recent meta-analysis indicated that antidepressant treatment appears to be effective for adolescents (Bridge et al., 2007). Across 13 clinical trials and 2910 participants 7 to 17 years old, overall response to treatment was 61%, compared to 50% for placebo. Adolescents had a better response to antidepressant treatment relative to placebo than children, but this was due to a stronger placebo response in children. Overall response rate to antidepressant treatment (not accounting for differences in placebo response) for adolescents and children was very similar (62% versus 65%). The efficacy of antidepressant treatment was inversely related to the duration of depressive disorder. This suggests that providing adolescents treatment earlier in the course of the depressive episode may be beneficial. Fluoxetine (Prozac) is currently the only medication approved by the U.S. Food and Drug Administration (FDA) for the treatment of depression in children and adolescents (ages 8 and older).

Recently, there has been some concern that antidepressant medications may increase risk for suicidal ideation and behavior among a subset of adolescents. The FDA reviewed placebo-controlled clinical trials of SSRIs involving 2,200 youth and found that risk for suicidal thinking or behavior was double among those receiving SSRIs versus placebo, although base rates for suicidal behavior were relatively low

(4% versus 2%). In response, the FDA adopted a serious ''black box'' label warning, indicating SSRIs could increase the risk of suicidality in youth. The FDA also recommended especially close monitoring in the first four weeks of SSRI treatment, a time period when suicidal ideation and behavior were most likely to occur. Interestingly, epidemiological research indicates that increased SSRI prescriptions are associated with lower rates of completed suicide in adolescents and children (Gibbons, Hur, Bhaumik, & Mann, 2006). Further, after instituting a ''black box'' warning, prescriptions for SSRIs decreased and rates of completed suicide subsequently increased among children and adolescents (Gibbons et al., 2007). Thus, this is a highly contentious issue, with conflicting evidence about whether SSRIs contribute to or prevent suicidal behavior.

## Psychological Treatments

In this section, we review interpersonal psychotherapy, marital therapy, family treatment, and psychological treatment with adolescents.

**Interpersonal Psychotherapy (IPT)** There is substantial evidence that IPT is an effective treatment for depression. It is generally recommended as an acute treatment for adult depression by numerous guidelines and panels (e.g., Depression Guideline Panel, 1993). IPT has been shown to be equally effective as acute antidepressant treatment with amitriptyline for the reduction of depression symptoms, and combined treatment (IPT + amitriptyline) was more effective than either treatment alone (Weissman et al., 1979). Further, a large multisite study has demonstrated that IPT is equally effective as antidepressant treatment with imipramine and CBT for the treatment of mild depression and that IPT demonstrated a slight advantage over CBT for the treatment of more severe forms of depression (Elkin et al., 1989).

The IPT treatment manual has been translated into numerous languages and implemented around the world. Later we provide a brief overview of the concepts and techniques of IPT. For more detail, treatment manuals are available for IPT with depressed adults (Weissman, Markowitz, & Klerman, 2000), depressed adolescents (Mufson, Moreau, Weissman, & Klerman, 1993), and for delivery in group formats (Wilfley, MacKenzie, Welch, Ayres, & Weissman, 2000).

IPT is based on the notion that life events influence the onset and expression of depression. The main goal of IPT is to help the patient better understand and cope with depression by making connections between current life events and the onset of symptoms. This is achieved in part by helping patients to overcome interpersonal problems in an effort to improve life circumstances and relieve depression. Its focus is on current events and relationships, rather than on past relationships or problems. IPT techniques include (a) an *opening question:* patients provide information regarding their current mood state and events that contributed to the current mood; (b) *communication analysis:* patients review an important affectively charged life event; (c) *exploration of patient's wishes and options:* patients review desired outcomes

for the situations described in session; (d) *decision analysis:* patients decide which options to use in future life situations, and (e) *role playing:* patients practice implementing new strategies and solutions to interpersonal problems.

Treatment with IPT typically lasts 12 to 16 weeks when implemented in clinical trials, although longer versions of IPT have been developed (Klerman, DiMascio, Weissman, Prusoff, & Paykel, 1974). The early phase of treatment involves a diagnostic evaluation, presentation of the IPT framework, and a review of the patient's psychiatric history. Reviewing key interpersonal relationships is a major focus of this phase. The therapist also identifies life difficulties that contribute to the patient's depressive symptoms in one of four key areas: (1) grief, (2) role disputes, (3) role transitions, and (4) interpersonal deficits. The middle phase of treatment focuses on remediating these problem areas. For instance, if the main issue is the patient's difficulty with social skills, much of the treatment will be focused on improving those skills (e.g., via role plays with the therapist). The final phase of treatment helps the patient to consolidate the gains, identify potential weaknesses, and develop a plan to cope with increases in depression should they occur again.

**Marital Therapy** Although there is good evidence that marital therapy can be used to successfully treat marital discord (Beach, Jones, & Franklin, 2009), there is emerging evidence that martial therapy can effectively treat depression. Three studies found that behavioral marital therapy was equally effective for treating depression as cognitive therapy, and both were superior to a waitlist control (Beach & O'Leary, 1992; Emanuels-Zuurveen & Emmelkamp, 1996; Jacobson, Dobson, Fruzzetti, Schmaling, & Salusky, 1991). Behavioral martial therapy had the additional benefit of reducing marital discord to a greater extent than cognitive therapy. Other forms of marital treatment have been shown to be effective, such as spouse-aided cognitive therapy (Emanuels-Zuurveen & Emmelkamp, 1997), cognitive marital therapy (Teichman, Bar-El, Shor, & Sirota, 1995), and IPT modified for couples (Markowitz, Weissman, & Gabbard, 2009), although the evidence base is somewhat smaller for these forms of treatment.

Given the success of Behavioral Marital Therapy (BMT) for the treatment of depression, we provide a brief review of this intervention (for a more thorough review, see Beach et al., 2009). BMT is a relatively brief time-limited (approximately 10 weeks) treatment that is indicated for couples when one partner is depressed and marital discord is present. Initially, therapists identify relationship stressors and develop a plan to eliminate them, while simultaneously increasing the number of positive interactions between the couple. Ideally, this phase of treatment will improve depressed mood and prepare the couple for the second phase of treatment aimed at restructuring the marital relationship. The main focus of this second phase of treatment is to improve communication between partners, engage in more productive and healthy problem solving, and improve day-to-day interactions between the couple. Most of the work in BMT occurs during this phase. The final

phase of treatment involves preparation for termination from treatment and setting a plan to cope with future stressors that may increase vulnerability to depression and marital discord.

**Family Treatment** Family-based treatment is another type of intervention that appears to be effective for depression. For instance, severely depressed patients who received family treatment were more likely to improve and report less suicidal ideation than patients who did not receive family treatment (Miller et al., 2005). Although there are a number of family-based treatments, the McMaster approach appears to be effective for treating adult depression (Miller, Ryan, Keitner, Bishop, & Epstein, 2000).

This treatment takes a systems approach to understanding dysfunction within the family. It assumes that: (a) all parts of the family are interrelated; (b) one member of the family cannot be fully understood in isolation from the rest of the family; and (c) family structure, organization, and interactions influence family members' behavior. At the beginning stages of treatment, family functioning is evaluated in six domains: problem-solving, communication, roles, affective responsiveness, affective involvement, and behavior control. The family and the therapist then develop a contract, which identifies the expectations, goals, and commitments regarding treatment. Treatment is then initiated to mitigate identified problems. Treatment focuses on behavioral changes via task setting that occurs between sessions. Subsequent sessions then focus on evaluating the success of those assignments and then planning future tasks that build on prior successes. A number of techniques are also explored during the session to help improve the family's ability to communicate and change the problems without the help of the therapist. The final stages of treatment focus on summarizing treatment, setting long-term goals, and determining whether future follow-up treatment is necessary. For more detail, see Epstein, Bishop, Miller, and Keitner (1988).

**Psychological Treatment With Adolescents** Although CBT treatment has the most empirical support for the psychological treatment of adolescent depression (see Appendix A), evidence is accumulating for other forms of treatment. For instance, two studies have documented the efficacy of adolescent IPT (IPT-A) for depressed adolescents versus brief supportive therapy (Mufson, Weissman, Moreau, & Garfinkel, 1999) and waitlist (Rosselló & Bernal, 1999). Further, in a study involving training community clinicians to deliver the intervention, IPT-A outperformed treatment as usual (Mufson et al., 2004), with 50% recovering from depression in IPT-A versus 34% in treatment as usual. Adolescents receiving IPT-A also reported significantly better improvement in overall functioning and social functioning at the end of treatment than those who received treatment as usual. Thus, IPT-A is considered an efficacious treatment for adolescent depression (David-Ferdon & Kaslow, 2008).

Family-oriented treatment also appears to be an efficacious treatment for adolescent depression. One of the first studies compared systemic behavior family therapy (SBFT) to CBT and supportive therapy for the treatment of depression. SBFT identifies the presenting problems within the family and then focuses on changing dysfunctional interaction patterns and improving communication within the family. At the end of acute treatment (12 to 16 sessions), 17% of CBT participants, 32% of SBFT participants, and 42% of the supportive treatment participants still met criteria for MDD. However, by the 2-year follow-up, more than 80% had recovered from MDD and treatment did not predict who was more likely to recover. Thus, although this literature is sparse and much more work is needed, family treatment may work less efficiently than CBT for treating adolescent depression, but longer-term outcomes appear to be comparable.

## Combined Pharmacological and Psychological Treatment

Given that pharmacological and psychological treatments can be effective in isolation, a related question is whether combining these treatments can improve depression treatment outcomes further. A number of studies have examined this question, including several meta-analyses. One meta-analysis found that adding psychotherapy to antidepressant treatment almost doubled the response rate compared to antidepressant treatment alone (Pampallona, Bollini, Tibaldi, Kupelnick, & Munizza, 2004). Participants in the combined treatment were also less likely to drop out of treatment compared to those who only received medication.

However, the picture is less clear when examining the impact of adding pharmacotherapy to psychotherapy. One review found that combined treatment was not more effective than psychotherapy for less severe forms of depression, but a significant advantage was observed for combined treatment for more severe recurrent depressions (Thase et al., 1997). Yet another review indicates that combined treatment compared to single treatment leads to small improvements in depression (Friedman et al., 2004). Overall, combined treatment in adults may be beneficial; however, the effects tend to be modest and are probably best indicated for more severe forms of depression.

Relatively fewer studies have examined the efficacy of combined treatment in adolescents. The Treatment for Adolescents with Depression Study (TADS) is a large multisite clinical research study examining the effectiveness of antidepressant medication, CBT psychotherapy, and their combination among adolescents 12 to 17 years old (Treatment for Adolescents with Depression Study Team, 2003). This study was conducted at 13 clinics across the United States (at a cost of $17 million) and involved 439 adolescents. After 12 weeks of treatment, 71% receiving combined treatment, 61% receiving fluoxetine (Prozac), 44% receiving CBT, and 35% receiving pill placebo were much or very much improved (Treatment for Adolescents with Depression Study Team, 2004). After 18 weeks of treatment, results were similar, as combination treatment was still most effective. By 36 weeks, the response rate was