Clinical Psychology

A Global Perspective

Edited by

Stefan G. Hofmann

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Notes on Contributors

Gerhard Andersson is full professor of clinical psychology at Linköping University in the Department of Behavioural Sciences and Learning, and an affiliated researcher at Karoliniska Institutet, Stockholm. He is clinically active as psychologist at the local hearing clinic. Andersson has a PhD in psychology and one in medicine and is trained as CBT therapist and supervisor. He is also interested in religion and atheism and has a BSc in theology. Professor Andersson is an internationally recognized leader in the field of cognitive-behavior therapy delivered through information and communication technology as evidenced by his over 500 peer-reviewed publications. His research spans somatic and psychiatric conditions; he is a leading researcher in the field of tinnitus and has published extensively on depression and anxiety disorders. Andersson is also the editor-in-chief for the journal *Internet Interventions.* In 2014 he was awarded the Nordic Prize in Medicine. For more information see www.gerhardandersson.se (retrieved April 3, 2017).

Martin M. Antony, PhD, is professor in the department of psychology at Ryerson University, in Toronto Canada. He has published more than 275 books, articles, and chapters, mostly in the area of anxiety and related disorders. He is a fellow of the Royal Society of Canada, the American and Canadian Psychological Associations, the Association for Psychological Science, and several other professional associations.

Elisabeth A. Arens received her PhD in clinical psychology from Heidelberg University in 2013. She currently holds a position as a postdoctoral researcher in the Department of Clinical Psychology and Psychotherapy at the Goethe University of Frankfurt. Dr. Arens has a special research expertise in depressive disorders, with a particular focus on the assessment of emotion regulation deficits. Her clinical practice (cognitive behavioral therapy) includes a special consulting service for individuals with depressive disorders.

Borwin Bandelow, born in Göttingen, Germany, is Professor at the Department of Psychiatry and Psychotherapy at the University of Göttingen. As a specialist in psychiatry and neurology, a psychologist, and a psychotherapist, Dr. Bandelow specializes mainly in anxiety disorders, but also in schizophrenia, depression, psychotherapy, and psychopharmacology. He is currently the Deputy Director of the Department of Psychiatry and Psychotherapy of Göttingen.

Rosa M. Baños is full professor in psychopathology at the Universitat de Valencia, Spain, and has been a Senior lecturer at Universitat Jaume I, in Spain. She is the director of the Master in Multidisciplinary Intervention in Eating Disorders, Personality Disorders and Emotional Disorders course at the University of Valencia. Her research activity has focused in the study of psychopathology and the treatment of various psychological disorders (emotional disorders, anxiety disorders, eating disorders, etc.). She has also been working in recent years on the application of new technologies to clinical psychology for the understanding and treatment of mental disorders and the promotion of wellbeing.

Thomas Berger holds a Swiss National Science Foundation Professorship in Clinical Psychology and Psychotherapy at the University of Bern, Switzerland and leads the research group investigating Internet interventions. He earned his PhD degree in clinical psychology and psychotherapy in 2005 from the University of Freiburg, Germany. Since then he has received several grants and awards such as the Outstanding Early Achievement Award of the Society for Psychotherapy Research.

Susan M. Bögels is clinical psychologist, psychotherapist and mindfulness trainer, professor in developmental psychopathology at the University of Amsterdam, and director of academic treatment center for children and parents UvA minds. Her research interests concern the intergenerational transmission of psychopathology, with a specific focus on the role of the father, and the effects of mindfulness-based and cognitive-behavioral family interventions on child and parental psychopathology. She was a member of the anxiety disorder workgroup preparing the *DSM-5*.

Cristina Botella is full professor of clinical psychology at Universitat Jaume I (UJI), Spain, director of Labpsitec (www.labpsitec.es, retrieved April 3, 2017), and director of the doctorate program in psychology. She has been principal investigator in more than 40 research projects and has published over 200 papers. Her main line of research is the treatment of psychological disorders, and the use of information and communication technology (virtual reality, augmented reality, the Internet, and mobile apps) to promote health and wellbeing.

Michelle L. Bourgeois received her BA with Honors in psychology from Wellesley College and is currently a doctoral candidate in clinical psychology at Boston University (BU), where she works as a graduate student researcher and clinician at the BU Center for Anxiety and Related Disorders. Under the mentorship of Timothy A. Brown Psy.D. she studies the classification, time course, and transdiagnostic treatment of emotional disorders.

Timothy A. Brown is a professor in the Department of Psychology at Boston University, and director of research at Boston University's Center for Anxiety and Related Disorders. He has published extensively in the areas of the classification of anxiety and mood disorders, vulnerability to emotional disorders, psychometrics, and methodological advances in social sciences research. In addition to conducting his own grant-supported research, Dr. Brown serves as a statistical investigator or consultant on numerous federally funded research projects. He has been on the editorial boards of several scientific journals, including a longstanding appointment as associate editor for the *Journal of Abnormal Psychology.*

Richard A. Bryant, DSc, is a Scientia Professor of Psychology at the University of New South Wales, Sydney. He is also an NHMRC senior principal research fellow and director of the UNSW Traumatic Stress Clinic. He has conducted extensive research into assessment, mechanisms, and treatment of acute stress disorder and posttraumatic stress disorder, and has conducted research trials in diverse settings across Africa, Asia, and the Middle East.

Matthew Calamia, PhD, is an assistant professor in the Department of Psychology at Louisiana State University. He earned his doctorate in clinical psychology at the University of Iowa and completed his predoctoral psychology internship at the University of Illinois at Chicago Department of Psychiatry. His research interests include neuropsychological assessment and psychometrics.

Rachel N. Casas is an assistant professor of graduate psychology at California Lutheran University, and a licensed clinical neuropsychologist with expertise in cognitive assessment of ethnic and linguistic minority populations. Her research focuses on understanding how cultural factors influence brain functioning and behavior, and her work has been funded by the National Science Foundation (NSF), the American Psychological Association, and the Foundation for Psychocultural Research (FPR).

Brad Cini, BPsych (Hons), completed a research thesis at the Cognitive Behavior Therapy Research Unit, Monash University, Australia (http://www.med.monash.edu.au/psych/cbtru/, retrieved April 3, 2017) under the supervision of Dr. Nikolaos Kazantzis, on change processes in psychological therapy. Specifically, his research focused on the effects of collaboration between therapist and client on symptom reduction in cognitive behavior therapy. He has a keen interest in cognitive behavioral therapy and is currently pursuing a career in clinical practice.

Christopher C. Conway graduated with a B.S. in psychology from Duke University, and he earned his PhD in clinical psychology from UCLA in 2013. He went on to hold postdoctoral fellowships at the UCLA Anxiety Disorders Research Center and the Boston University Center for Anxiety and Related Disorders. He joined the William & Mary faculty as an assistant professor in 2015. Along with his team, he studies the onset, time course, and classification of emotional disorders.

Robert J. Craig, PhD, ABPP, is a licensed and board certified clinical psychologist who attained fellow status in the American Psychological Association and in the Society for Personality Assessment, where he was the recipient of the Martin Mayman award for "distinguished contributions to the literature of personality assessment." He has published 10 academic books, contributed over a hundred scientific papers in peer-reviewed journals and served as consulting editor for the *Journal of Personality Assessment* as well as for journals in psychology, psychiatry and substance abuse. He served as the director of the drug abuse treatment program at the VA Medical Center, Chicago.

Jan Christopher Cwik is postdoctoral researcher and licensed psychotherapist (cognitive behavior therapy) at the Mental Health Research and Treatment Center of the Ruhr-Universität Bochum (Germany). He received a postgraduate grant from the Bergische Universität Wuppertal while completing his PhD. His research focuses on diagnostics in clinical psychology, diagnostic decisions and processes, and psychophysiological processes of mental disorders. He is member of the American Psychological Association and the Association for Psychological Science.

Cecilia A. Essau, PhD, is full professor in developmental psychopathology and director of the Centre for Applied Research and Assessment in Child and Adolescent Wellbeing at the University of Roehampton, United Kingdom. Her research focuses on understanding the interacting factors that can lead children and adolescents to have serious emotional and behavioral problems. She uses this research to enhance the assessment of childhood and adolescent psychopathology, and design more effective interventions to prevent and treat such problems.

Nicole Everitt, BA (Hons), is a doctor of clinical psychology student at Deakin University, Australia. She completed a prior research thesis at the Cognitive Behavior Therapy Research Unit (http://www.med.monash.edu.au/psych/cbtru/, retrieved April 3, 2017) under the supervision of Dr. Nikolaos Kazantzis, on process-outcome relationships in the treatment of depression. Specifically, she examined the moderating effect of client characteristics on alliance-outcome and collaboration-outcome relationships in cognitive behavior therapy for depression. Recently, she presented this research at the World Congress of Behavioural and Cognitive Therapies.

Azucena García-Palacios is professor of abnormal psychology and member of Labpsitec research team at Universitat Jaume I, Spain. Her main research field is the study of the psychopathology and improvement of psychological treatments, mainly for emotional disorders, personality disorders, and chronic pain, using information and communication technologies. She has participated in more than 20 research projects funded by national institutions and the European Union, and she is the author of more than 90 scientific papers.

Amie E. Grills, PhD, is an associate professor at Boston University, United States. Dr. Grills is a licensed clinical psychologist whose work focuses on internalizing disorders and trauma, particularly among children and young adults. Dr. Grills' research includes investigations of risk and resiliency factors that influence the development of psychopathology, as well as on designing and evaluating cognitive-behavioral assessments and interventions, including those conducted using novel delivery systems (e.g., web-based designs, school-based services).

Devon E. Hinton, MD, PhD, is an anthropologist and psychiatrist, and an associate clinical professor of psychiatry at Massachusetts General Hospital, Harvard Medical School. He is the author of over a hundred articles, and is the co-editor of three volumes: *Culture and panic disorder* (Stanford University Press, 2009); *Culture and PTSD: Trauma in global and historical perspective* (University of Penn Press, 2015); and *Genocide and mass violence: Memory, symptom, and recovery* (Cambridge University Press, 2015).

Stefan G. Hofmann, PhD, is professor of psychology in the Department of Psychological and Brain Sciences at Boston University, where he directs the Psychotherapy and Emotion Research Laboratory. His main research focuses on the mechanism of treatment change, translating discoveries from neuroscience into clinical applications, emotion regulation strategies, and cultural expressions of psychopathology. He is the author of more than three hundred scientific publications and twenty books. He is a Highly Cited Researcher by Thomson Reuters, and has many other awards. For more information see http://www.bostonanxiety.org/.

Melissa K. Holt, PhD, is an assistant professor at Boston University's School of Education. She is a counseling psychologist whose clinical work with adolescents and adults has focused on trauma and disordered eating. Dr. Holt studies how multiple victimization forms affect children and adolescents, with attention to their influence on psychological and academic functioning. Within this body of research, she has conducted numerous studies on bullying, and tied findings to implications for prevention and intervention.

Nikolaos Kazantzis, PhD, is associate professor of clinical psychology and program director for clinical psychology at Monash University. He is an expert on cognitive behavior therapy. His scientific work has been supported by grants from the NIMH and various private foundations. His research focuses on change processes in treatment and the effects of therapeutic relationship elements on symptom reduction. He has published more than a hundred scholarly publications, including six books. For more information visit http://www.med.monash.edu.au/psych/cbtru/ (retrieved April 3, 2017).

Maria Kleinstäuber, assistant professor, Department of Clinical Psychology and Psychotherapy, Philipps University of Marburg, Germany. Dr. Kleinstäuber is a licensed cognitive behavior therapist, specializing in therapy efficacy as well as pathomechanisms in the area of behavioral medicine. In 2014 she worked as postdoctoral research fellow under supervision of Prof. Dr. Michael J. Lambert at the Psychology Department of Brigham Young University, Provo, United States. Since 2015 she has been Secretary of the International Society of Behavioral Medicine and Research Fellow of the Department of Health Psychology, KU Leuven, Belgium. In 2013 she received the National Institute for Health Research (NIHR) Cochrane Review Incentive Scheme and in 2016 the ICMB Early Career Award.

Kirstyn L. Krause is a doctoral student in clinical psychology at Ryerson University in Toronto, Canada. Her research interests include (a) the relationship between anxiety disorders and related constructs (e.g., perfectionism), and (b) mechanisms of fear reduction (e.g., expectancy violation) during exposure-based practice. Her research has been presented at a number of national and international meetings.

Tania Lincoln studied psychology in Marburg, Germany. She completed her PhD in 2003 and her training as a clinical psychologist in 2004. From 2003 to 2005 she worked in a forensic mental health setting, where she became increasingly interested in psychological therapy for psychosis.

From 2005 to 2011 she was the principal investigator in a randomized controlled trial on CBT for psychosis at the University of Marburg. Since 2011 she has been professor of clinical psychology and psychotherapy in Hamburg. Her research focuses on understanding the psychological mechanisms of how psychotic symptoms arise and on improving interventions for psychosis.

Wolfgang Lutz, PhD, full professor, is head of the Department of Clinical Psychology and Psychotherapy and the Director of the Outpatient Clinic and Postgraduate Clinic Training at the University of Trier, Germany. He is one of the pioneers of patient-focused and feedback research and worked in this area in several countries using service research data from the United States, the United Kingdom, Switzerland, and Germany.

Jürgen Margraf, after a research scholarship at Stanford University, held professorships in Berlin, Dresden, Basel, and Bochum. In 2009 he was awarded an Alexander von Humboldt professorship, Germany´s most highly endowed scientific award, for his work on mental health. He is past president of the European Association for Behavioural and Cognitive Therapies (EABCT) and the German Society of Psychology and member/fellow of the German National Academy of Science (Leopoldina), the Academia Europaea, and the Association for Psychological Science.

Anne Marie Meijer is a cognitive behavioral and family therapist. She worked as associate professor at the University of Amsterdam. She conducted studies in the field of childhood chronic illness, parental chronic illness and sleep problems of children and adolescents. The projects concerning sleep are focused on the influence of sleep and chronic sleep reduction on problem behavior and academic performance. In addition, efficacy of melatonin, light therapy and face-to-face and online CBTi on children's sleep problems are investigated.

Eva Charlotte Merten earned her M.Sc. in clinical psychology at Ruhr-Universität Bochum and is currently a PhD. student at the Department of Clinical Child and Adolescent Psychology of the Ruhr-Universität Bochum, researching diagnostics in children and adolescents, especially self-evaluations in preschool children with externalizing disorders and consequences of discrepancies in self- and parent-evaluations of child symptoms. (Department of Clinical Child and Adolescent Psychology of the Faculty of Psychology, Ruhr-Universität Bochum, Massenbergstraße 9-13, 44787 Bochum, Germany; eva.merten@ruhr-uni-bochum.de).

Peter Muris, PhD, is full professor in Clinical Psychology and Developmental Psychopathology at Maastricht University, the Netherlands, and part-time working as a clinician at Virenze Maastricht, an outpatient treatment facility for children and adolescents with mental health problems. His clinical and research interests focus on various types of childhood psychopathology, but in particular on anxiety disorders. He is also the present chair of the Dutch-Flemish research school on Experimental Psychopathology.

Pedro J. Nobre has a PhD in clinical psychology, and is director of the Laboratory for Research in Human Sexuality (SexLab) at Porto University, Portugal, and research fellow at the Kinsey Institute (United States). He is PI in various research projects on sexual health, has published over 70 papers in international journals, and serves in the editorial board of sex research and clinical psychology journals. He is past president of the Portuguese Society of Sexology (2008–2011) and is currently chair of the Scientific Committee of the World Association for Sexual Health (2013–2017).

Thomas H. Ollendick, PhD, is University Distinguished Professor in Clinical Psychology at Virginia Tech. He is the author of numerous research publications, book chapters, and books, and the past president of AABT (1995) and the Society for the Science of Clinical Psychology (2010). His clinical and research interests range from the study of diverse forms of child psychopathology to the assessment, treatment, and prevention of these disorders from a social cognitive theory and evidence-based perspective.

Brian D. Ostafin is an associate professor in the experimental psychopathology and clinical psychology program at the University of Groningen, the Netherlands. He received his doctorate

in clinical psychology from Boston University in 2004. His research focuses on the role of implicit processes in psychopathology (with an emphasis on addictive behaviors) and the usefulness of mindfulness interventions to overcome such processes. This work has been funded by the NIH and other agencies.

Anushka Patel is a clinical psychology doctoral student at the University of Tulsa. She studies the diagnosis and treatment of trauma-related sequelae in global settings. During her graduate career, Anushka has examined psychological outcomes of trauma related to gender-based violence among women from Indian slums using mixed methods. She plans to spend her career developing, testing, and refining culturally adapted treatments for populations in low- and middle-income countries.

Soledad Quero is professor of clinical psychology at Universitat Jaume I, Spain. Her main research interest is the application of information and communication technologies to improve psychological treatments for emotional disorders. She has been principal investigator in five research projects, has participated in at least 20 projects funded by national and local institutions, and seven European projects. She has published over 70 papers in national and international journals and is co-author of at least 30 book chapters.

Winfried Rief *is a* professor of clinical psychology and psychotherapy, Philipps University of Marburg, Germany. Head of the Clinic for Psychological Interventions. He holds a license for psychotherapy and supervision. Dr. Rief worked for many years in hospital settings (e.g., Roseneck Hospital for Psychosomatic Medicine, Prien a. Ch.). He specializes in placebo and nocebo effects, perception and coping with somatic symptoms, and optimization of clinical studies and interventions. He was guest professor at Harvard Medical School, Boston (2004/2005), University of Auckland Medical School (2002), and University of California San Diego (2009/2010). He was also nominated for the expert committee of WHO/APA for the revision of the classification of mental disorders according to *DSM-5,* and he is co-chairing the WHO working group on chronic pain diagnoses in *ICD-11.* Dr. Rief is elected coordinator for grant applications to the German Research Foundation and he is spokesperson of the DFG-research unit on placebo and nocebo mechanisms. His publication record summarizes more than 400 articles, in particular in the field of behavioral medicine and somatoform disorders. He received the Distinguished Researchers award in behavioral medicine in 2014.

Julian A. Rubel, PhD, is a research fellow at the Department of Clinical Psychology and Psychotherapy at the University of Trier, Germany. His research focuses on the development and implementation of decision rules that support the personalized selection of treatment alternatives and their adaptation in the course of the treatment.

Elske Salemink is an assistant professor at the department of developmental psychology of the University of Amsterdam. Her research focuses on the role of implicit processes in anxiety, depression, and addiction, and on changing these processes by means of computerized training. She is also a licensed behavioral and cognitive therapist (member of the Association of Behavioral and Cognitive Therapy).

Silvia Schneider, PhD, is Dean of the Faculty of Psychology and Professor of Clinical Child and Adolescent Psychology at the Ruhr-Universität Bochum and Head of the Mental Health Research and Treatment Center in Bochum, Germany. She conducts research on the etiology of anxiety disorders in children, familial transmission of anxiety disorders, stress and emotion/self-regulation in infancy, and diagnostics of mental disorders. (Clinical Child and Adolescent Psychology, Ruhr-Universität Bochum, Massenbergstraße 9–13, 44787 Bochum, Germany; silvia.schneider@rub.de.)

Ulrich Stangier, PhD, is a professor of clinical psychology and psychotherapy at the Goethe University of Frankfurt. He is also director of the Behavior Clinic and of the clinical training

program at the department. He has conducted research trials in social anxiety disorder, chronic and recurrent depression, and body dysmorphic disorder. An additional focus of research is on therapy process and therapists' competence and adherence in cognitive therapy.

Mehmet Zihni Sungur is a professor of psychiatry at the Psychiatry Department of Marmara University, Istanbul, Turkey. He received training in cognitive behavior therapy, and sexual and marital therapies at the Institute of Psychiatry, London. He is certified as a cognitive therapist and supervisor by the Academy of Cognitive Therapy (ACT). He is president elect of the International Association for Cognitive Psychotherapy (IACP). He is also a past presidents of the European Association for Behavioural and Cognitive Therapy (EABCT), and is a board member of the European Federation of Sexology (EFS).

Jennifer Svaldi works as a full professor at the Department of Clinical Psychology and Psychotherapy at the University of Tübingen. Her research themes focus on mechanisms that cause and maintain pathological eating behavior and body-image disturbances in at-risk populations, overweight individuals, and individuals with eating disorders. To this end, a variety of designs and methods are used, ranging from fundamental studies (eye tracking, EEG, reaction-time tasks, fMRI) to laboratory-based behavioral studies, ecological momentary assessment (EMA) studies and applied clinical studies (treatment processes and treatment effects).

Rosemary Toomey completed her doctorate in clinical psychology from the University of Montana, and her clinical internship, neuropsychology fellowship, and research fellowship from Harvard Medical School (HMS), Psychiatry Department at Massachusetts Mental Health Center, where she was also assistant professor. She previously worked at the Brockton VAMC and the Brookline Mental Health Center. She is currently research associate professor in the Department of Psychological and Brain Sciences at Boston University, where she is Director of Neuropsychological Assessment at the Psychological Services Center.

Daniel Tranel graduated from the University of Notre Dame in 1979, and then earned a PhD in clinical psychology at the University of Iowa in 1982. He completed postdoctoral training at Iowa under Drs. Arthur Benton and Antonio Damasio, and joined the faculty in the Department of Neurology in 1986, where he has been ever since. Tranel currently holds joint appointments as a professor in the Department of Neurology and the Department of Psychological and Brain Sciences. He heads the Benton Neuropsychology Laboratory, and he is Director of the Neuroscience PhD Program at Iowa. He has also served as the associate dean of graduate and postdoctoral studies at the Carver College of Medicine. Dr. Tranel studies the neural basis of higher order cognition and behavior, using the lesion method and functional neuroimaging in human participants. His clinical and research work has provided new insights into the diagnosis and treatment of traumatic brain injury, Alzheimer's disease, and mental health disorders.

Brunna Tuschen-Caffier has been a full professor for clinical psychology and psychotherapy at the University of Freiburg, Department of Psychology, Germany since 2007. Before she moved to the University of Freiburg she had a professorship at the Universities of Bielefeld (2003–2007) and Siegen (2000–2003), both in Germany. Her research focuses on mechanisms of maintenance and change in mental disorders, especially eating disorders and anxiety disorders. Thus, she combines a variety of methods (e.g., psychophysiological and behavioral methods) to analyze patterns of psychopathology pre and post psychotherapy. Moreover, she developed and evaluated manuals for the psychotherapy of patients with eating disorders as well as anxiety disorders (social anxiety disorder).

Bram Van Bockstaele is a postdoctoral researcher of the YIELD research priority area at the University of Amsterdam. His main research interests are adaptive and maladaptive emotion regulation, and interventions aiming to improve emotion regulation skills (e.g., mindfulness, attention training).

Preface

Clinical psychology is an international discipline with many international societies, journals, and training workshops. Although the geographical, sociological, cultural, and even political contexts are important variables that need to be considered for the understanding of the subject, existing clinical psychology textbooks have not attempted to capture this diversity.

In fact, most of the popular existing clinical psychology texts were written for English-speaking European or Anglo-American audiences and translated for other countries. There is no text that takes a global perspective of the field of clinical psychology. This text is an attempt to fill this gap. Written by experts from around the world, this book is unique in its breadth and depth. It is aimed at undergraduate and graduate students and serves as a modern and international alternative to existing clinical psychology textbooks. All chapters of this book cover the basic areas of clinical psychology, but integrate cultural issues into the discussion of the various topics.

The book begins with a review of research methods used in clinical psychology (Chapter 1 by Julian A. Rubel and Wolfgang Lutz) and classification systems across the globe (Chapter 2 by Jan Christoph Cwik and Jürgen Margraf). This is followed by an overview of clinical interviewing of adults (Chapter 3 by Christopher C. Conway, Michelle L. Bourgeois, and Timothy A. Brown) and of children and adolescents (Chapter 4 by Eva Charlotte Merten and Silvia Schneider). The most important psychological tests are described in Chapter 5 by Robert J. Craig. Neuropsychological tests are covered in Chapter 6 by Rachel N. Casas, Matthew Calamia, and Daniel Tranel (with a particular emphasis on clinical neuropsychology) and by Rosemary Toomey in Chapter 7, providing a complementary discussion on this subject.

Chapter 8 by Thomas H. Ollendick, Peter Murris, and Cecilia A. Essau provides an update on the discussion on evidence-based treatments. Chapter 9 by Amie E. Grills and Melissa K. Holt covers some of the most common childhood and adolescent disorders. The subsequent chapters then discuss various disorders during adulthood, including mood disorders (Chapter 10 by Ulrich Stangier and Elisabeth A. Arens), anxiety and obsessive-compulsive disorders (Chapter 11 by Kristyn L. Krause and Martin M. Antony), posttraumatic stress disorder (Chapter 12 by Richard A. Bryant), eating disorders (Chapter 13 by Brunna Tuschen-Caffier and Jennifer Svaldi), sexual dysfunctions (Chapter 14 by Pedro J. Nobre), couple distress (Chapter 15 by Mehmet Zihni Sungur), somatic symptom disorders (Chapter 16 by Maria Kleinstäuber and Winfried Rief), and psychotic disorders (Chapter 17 by Tania Lincoln). These chapters primarily review the psychological treatments of these problems. A separate chapter specifically reviewing the neurobiology and pharmacological treatments of mental disorders is provided by Borwin Bandelow (Chapter 18).

More recent, less traditional, but increasingly popular approaches for dealing with psychological problems include mindfulness-based interventions (Chapter 19 by Bram van Bockstaele, Elske Salemink, Brian D. Ostafin, Anne Marie Meijer, and Susan Bögels), Internet-based

treatments (Chapter 20 by Gerhard Andersson and Thomas Berger), and virtual reality (Chapter 21 by Cristina Botella, Rosa Banos, Azucena Garcia-Palacios, and Soledad Quero). Finally, the chapter by Nicole Everitt, Brad Cini, and Nikolaos Kazantzis (Chapter 22) highlights the importance of working alliance in psychological treatments, and Chapter 23 by Anushka Patel and Devon Hinton concludes with a summary of the importance of adapting treatments to the person's culture.

Thanks to the diverse background of the authors, who are some of the world's leaders in their respective fields, this text provides an international perspective on clinical psychology. My hope is that this book has the potential to become the leader of clinical psychology textbooks.

Stefan G. Hofmann, PhD
Professor of Psychology, Boston University
Boston, Massachusetts.

1

Research Methods

Julian A. Rubel and Wolfgang Lutz

Introduction

In most areas of psychology, chapters on research methods are predominantly concerned with the description of well-controlled conditions of laboratory studies and their proper analysis. However, the scope of clinical psychology is much broader than that of basic psychological science and laboratory studies. The variety of topics ranges from foundational issues to applied contexts. As clinical psychology is a far-reaching field of applied psychology, much research is concerned with phenomena that could not easily be studied in the lab or under controlled conditions. As a consequence, research methods within clinical psychology need to include designs and evaluation strategies ranging from laboratory studies to clinical interventions as they are delivered in the field. However, instead of making considerations about research methodology less important, this broader focus increases the importance of a knowledge of methodological issues to allow the appropriate analysis and interpretation of study results (Kazdin, 2013). Increased sophistication of applied research methods helped clinical psychology to establish itself as a profession. Regardless of their future occupation, a firm understanding of research methods is pivotal to every scholar in clinical psychology. Clinical scientists must not only be acquainted with research design considerations and statistical concepts, they also need to have expertise in this area to be able to provide a treatment that is based on scientific evidence.

The present chapter provides a nontechnical overview of the most important concepts of research methods in clinical psychology. In the first section of this chapter, central concepts pertaining to the study of the frequency, development and prevention of psychological problems are described briefly. Since most research in clinical psychology is on interventions, the second part of this chapter deals with the evaluation of these treatments. In this section, we present methods that are concerned with the following three overarching questions: (a) Does the intervention work? (b) Is the intervention effective for a specific patient? (c) How, for whom, and under which conditions does the intervention work?

Research on the Frequency, Cause, and Prevention of Psychological Problems, and Disorders

Epidemiology

Much research within clinical psychology attempts to answer questions such as: Who has a psychological problem or disorder? How is a disorder distributed in a specific population? Which factors lead to or increase the risk of psychological disorders? How does an untreated disorder develop? Who is seeking treatment and who needs it? The field of *epidemiology* deals

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with these questions (e.g., Rockett, 1999). *Descriptive epidemiology* deals with the distribution (occurrence, spatial, temporal) of these phenomena, and *analytic epidemiology* deals with the determinants (causes) of psychological disorders. Important concepts in epidemiological research are described below.

Prevalence

Prevalence indicates the frequency of a psychological disorder, generally or in a specific population. The prevalence rate is the proportion of people with a specific disorder in relation to the population of interest. Prevalence must be specified with regard to a particular time period and the examined population: For example, *12-month prevalence* refers to the rate of occurrence within a period of 12 months. In comparison, *lifetime prevalence* refers to the entire lifespan. Instead of a time period, prevalence can also refer to a specific time point (*point prevalence*). An additional important figure is *treatment prevalence*, which is not concerned with the frequency of occurrence of a disorder but the frequency with which persons seek treatment for a specific disorder.

Incidence

Incidence refers to the number of persons in a given time period and population that newly develop a disorder. Thus, the incidence rate is the proportion of persons in a given population that have a disorder but did not have that disorder in the past. In accordance with this definition, two measurement points would be necessary for a valid incidence estimate: The first time point provides the base-rate of people in a population who do not suffer from the disorder. The second time point determines the number of patients who were not ill at the first time point but are ill now. Like prevalence, incidence depends on the investigated period, and the population. If, for example, the second measurement point is one year after the first measurement point, the incidence rate is specific for this 1-year period.

Risk Measures

Generally, two types of risk measures can be differentiated: *unconditional risks* and *conditional risks. Unconditional risks* address the likelihood of developing a specific disorder in a given period. These risks can be calculated with the respective prevalence and incidence estimates described above. *Conditional risks* address whether certain variables increase (risk factor) or decrease (protective factor) the probability of developing a disorder. As such, whether the prevalence and/or incidence rates differ is investigated depends on the variable in question (e.g., sex). Many psychological disorders occur more frequently in women than in men. Consequently, being female is a risk factor for the development of these disorders.

Etiology and Analytical Epidemiology

When investigating the causes of psychological disorders, multidimensional models are usually assumed. That is to say, psychopathology is too complex to be explained by a single cause. Rather, many different influence factors from multiple dimensions are thought to interact, and eventually result in a psychological disorder. Etiology and analytical epidemiology address the questions of *who* develops a disorder and *under which circumstances*, taking into account behavioral, biological, emotional, social, and developmental influences. To observe the relative influence of each of the different factors, similar methods are applied, as described below (also see the section on the *control-group experiment*). The basic idea is to investigate groups that differ with regard to certain influence factors and are identical with regard to others. The examination of the effects of genes, for example, is often done within so called "twin studies."

Twins are identical with regard to their genetic code but might be exposed to other very different influence factors, especially if they were raised apart from each other. Those characteristics, which are shared by twins after many years within different environmental conditions, are highly likely to have strong genetic influences.

For the design of examinations that seek to establish causal influence factors, it is important to show that the potential influence factor was present before the disorder. Therefore, the repeated assessment of the same individuals over time is needed (*longitudinal designs*). *Cross-sectional designs*, in which data is collected from different age groups at the same time, can also hint at causal associations. However, this design assumes that the age groups are comparable with regard to other, not measured characteristics. If there are systematic differences between the different age groups (*cohort effects*) these can hamper the interpretation of cross-sectional studies.

Prevention

Besides the treatment of psychological disorders, the prevention of their onset is crucial for clinical psychology. Prevention research within clinical psychology investigates interventions or programs that help to reduce the risk of developing a psychological disorder. While *primary prevention* programs aim at risk reduction on a global level (e.g., for all inhabitants of a country), *secondary prevention* focuses on individuals who already show an increased risk of developing a disorder or already report subclinical problems. As such, prevention research is based on etiology and epidemiology, as knowledge on the potential causes of psychological disorders is needed to create effective programs. The evaluation of these programs uses the same methods as those presented below for the evaluation of other clinical interventions.

Evaluating Clinical Interventions and Treatments

Central to clinical psychology is the question of the effectiveness of specific clinical interventions as well as complete psychological treatments (e.g., cognitive behavioral treatments, psychodynamic treatments). The first step in the process of evaluating psychological interventions and treatments is an appropriate definition of the program or intervention, and the identification of criteria that differentiate success from failure. In psychotherapy research, for example, it is agreed that assessments of outcomes should not be limited to a single dimension (e.g., depressive symptoms), even if the focus of the study is a specific disorder (e.g., depression). While symptoms should be one of the primary outcomes, most studies collect data along multiple dimensions (e.g., work/social adjustment, interpersonal problems etc.), and include different perspectives (e.g., patient ratings, therapist ratings, third-party ratings). While psychophysiological and neurocognitive procedures have recently emerged as a new way of measuring change, questionnaires are still the predominant method of choice (e.g., Ogles, 2013).

In clinical studies, these outcome criteria are used as *dependent variables* (DV), which are assumed (*hypothesized*) to differ between persons depending on one or more manipulated or observed *independent variables* (IV). The most common IV in clinical research are interventions. If a researcher hypothesizes that 6 weeks of an intervention A are more effective in reducing symptoms of depression than just waiting 6 weeks, patients would be assigned into two groups: One group would receive intervention A, the other would not. Thus, these groups differ with regard to the IV *treatment* (*intervention A versus waiting*). If, after the 6 weeks, patients who underwent the intervention show less depressive symptoms (DV) than those in the waiting group, the researcher's hypothesis is confirmed. However, it must be ensured that

there are no alternative explanations for the differences in the DV other than the difference in the IV (intervention versus waiting). For potential threats to this causal interpretation and means of ruling out competing explanations, see the sections on *internal* and *external validity*.

In clinical psychology, the aim is often the amelioration of relevant symptoms. A crucial task in clinical research is therefore the measurement of change. "Measuring" denotes the determination of patients' characteristics regarding specific attributes. With regard to the measurement of change, two types can be differentiated: *Retrospective* and *repeated assessments change measurement*. *Retrospective change measurement* uses retrospective ratings of the amount of change induced by an intervention. This can be realized via global success ratings at the end of the treatment or by questionnaires specifically developed for this purpose. *Repeated assessments change measurement* uses differences in the scores from ratings at the beginning and the end of the intervention. Both approaches have specific advantages and disadvantages. *Retrospective* measurements allow an immediate and economic assessment of change. However, this approach enables no objective comparison with the state at the beginning of the treatment. *Retrospective* estimates are prone to several biases, which are typical of retrospective ratings. *Repeated assessments* rely on the principles of *classical test theory* (CTT). Since CTT struggles with an appropriate conceptualization of change measurement, related issues apply to *repeated assessments* (e.g., the problem of regression to the mean, the reliability of difference scores and the stability of the construct over time; for an in-depth discussion of these issues refer to Crocker & Algina, 1986). In clinical studies, multiple assessments have become standard.

Having defined appropriate criteria for the description of a course of change, the question arises of *when* these criteria should be assessed and after what amount of time an intervention can be considered successful. In order to test the *stability* of effects, the observed change must remain stable after termination of the intervention. Thus, conducting the last assessment at the end of an intervention cannot be enough to confirm its effectiveness. Instead, in order to be able to assess the stability of effects, the evaluation design must include measurements that are timed several weeks, months or even years after the end of treatment (follow up).

Does the Intervention Work?

To establish the effectivity of an intervention, it is crucial that the observed change can be attributed to the intervention with certainty. That is to say, alternative explanations of this change must be eliminated. To rule out as many alternative explanations for the observed change as possible, the *control-group experiment* has been considered the "gold standard" in clinical research. In *control-group experiments*, patients are randomly assigned to the intervention or a control condition. The objective of random assignment is the complete interchangeability of the groups before the start of the experiment. If this is achieved, every difference between the groups that is observed after the experiment can be attributed to the difference between the intervention and the control condition (manipulated IV). To be able to draw very specific conclusions, the difference between the intervention and the control condition should be limited to the specific factor that is hypothesized to cause the effect of the intervention. All other factors should be kept constant. These kind of studies are called "randomized control(led) trials" (RCTs). Depending on the respective control condition, different conclusions can be drawn (see Table 1.1).

Internal Validity

Randomized controlled trials aim to test hypotheses deductively, for example with respect to the effectivity of a newly developed intervention in comparison to an established intervention.

Table 1.1 Different control groups and potential corresponding study conclusions.

Control condition	Potential conclusion
Waitlist control (participants receive no intervention and are just assessed before and after the experiment; after the experiment these participants receive treatment)	Intervention A is more effective than no intervention
Alternative intervention A—without effective ingredients (participants receive a placebo treatment)	The effects of intervention A are not only due to a placebo response
Alternative intervention B—with other effective ingredients (participants receive a different intervention, which is assumed or has been shown to be effective)	Intervention A is more effective than intervention B

Thus, aspects of *internal validity* are emphasized. *Internal validity* describes the certainty with which the observed differences between the experimental conditions can be attributed to the manipulations in the experiment (i.e. the clinical-psychological intervention). As described above, ruling out alternative explanations is key to this approach. In clinical psychology, the following measures are often taken to secure internal validity:

- *random assignment to the conditions* to secure the comparability of the groups and rule out person characteristics as alternative explanations;
- *homogeneous samples (i.e. clearly specified diagnostic groups)* to draw specific conclusions for specific populations;
- *a strict standardization of the intervention (e.g., by manualization of the intervention)* to ensure that the intervention is conducted as intended for every participant—this regularly includes post hoc assessments of protocol adherence and the competence with which the protocol was implemented;
- *training of those who conduct the intervention* to ensure a comparable competence of the therapists.

External Validity

Despite the methodological rigor of experimental clinical research, it is repeatedly criticized for its narrow emphasize on internal validity, which is often achieved at the cost of external validity (e.g., Howard, Moras, Brill, Martinovich, & Lutz, 1996). *External validity* describes the possibility of transferring study results to practice settings and is emphasized in quasi experimental or naturalistic studies. The transport of evidence from the lab to the field of clinical psychology (i.e. everyday clinical practice) represents a separate and important issue, and involves questions of generalizability, feasibility, and cost-effectiveness of therapeutic interventions. Quasi experimental studies aim to investigate the extent to which interventions are effective in clinical practice, without the controlled conditions of an RCT. This is important, because strict selection criteria in experimental studies with regard to both participants (i.e. homogenous sample) and therapists (i.e. specifically trained therapists) may limit the generalizability of results. Instead of the a priori control of potential confounding variables, the results of naturalistic studies are often controlled post hoc using statistical methods (e.g., ANCOVA). Unfortunately, the relationship between internal and external validity is reciprocal. Consequently,

Table 1.2 Basic differences between naturalistic / quasi experimental and experimental clinical studies.

Naturalistic / quasi experimental studies	Experimental studies
Explorative/inductive	Confirmatory/deductive
External validity	Internal validity
Heterogeneous samples	Homogeneous samples
Nonmanualized treatment	Protocol-based treatment
Statistical control	Randomization

the focus on external validity in naturalistic studies comes along with potential threats to internal validity, which could hamper clear-cut or even causal conclusions. Table 1.2 depicts the major differences between experimental and quasi experimental studies (e.g., Lutz 2002).

Given the divergent foci of these two types of research, it is commonly accepted that evidence from both are needed to build a solid evidence base for an intervention. This is also emphasized by the separate terminology introduced for both kinds of investigations: While naturalistic studies can validate the effectiveness of a treatment (*effectiveness studies*), randomized controlled trials test the efficacy of a treatment (*efficacy studies*).

Quantifying the Effects of an Intervention

Effect Sizes

With the help of effect sizes, it is possible to compare the results of different studies and estimate differences in effects between different conditions (e.g., psychotherapy versus waiting-list control group or comparisons between different interventions). Effect-size measures allow a quantification of differences between studies, irrespective of the applied instrument. There are different ways to calculate effect sizes. Generally, these can be divided into effect sizes that compare two different groups (e.g., treatment vs. control) and effect sizes of within-group comparisons (e.g., pre-post comparison). Basically, these types of effect sizes are differences of the scores of the compared groups (IG scores minus CG scores after the treatment or preintervention scores minus postintervention scores) in a specific instrument (e.g., a measure for depression). To be able to compare these effect sizes between different instruments, these differences are standardized at (i.e. divided by) the amount of variation in the respective scores (i.e. standard deviation; SD).

The literature discusses which standard deviation should be used to standardize the difference scores—the SD of the prescores/CG, the SD of the postscores/IG, or a pooled SD taking into account the variation at both time points or in both groups. Although the different techniques to calculate effect sizes produce similar results, they might lead to substantial differences.

The effect sizes described so far belong to the so-called d-family (e.g., Cohen's d or Hedges' d) and are calculated based on standardized average differences between two populations. Besides the d-family, the r-family is a prominent effect size measure in the literature. The calculation of effect sizes in the r-family is based on correlations (r). A correlation is a measure of the common variation of two variables and ranges from −1 to +1. Positive correlations ($r > 0$) between two variables A and B indicate that increases in A go along with increases in B and decreases in A go along with decreases in B. High negative correlations ($r < 0$) indicate that increases in A go along with decreases in B and decreases in A go along with increases in B. A correlation of 0 indicates that A and B are completely unrelated. The squared correlation (r^2) is called the

determination coefficient and denotes the share of the variation in B or A that can be explained by A or B respectively. That is to say, r^2 tells us something about the percentage of the differences in a variable A that can be explained by a variable B. For example, in treatment research it would be interesting to know how much of the differences in the patients' postscores can be explained by the treatment variable (i.e. treatment A or treatment B). Depending on the characteristics of the investigated variables (both continuous, both categorical or mixed) different kinds of correlations can be calculated, however their interpretation generally remains the same.

Clinical Significant Change

While the effect-size measures described above allow the quantification and standardization of group differences, they do not allow conclusions with regard to the clinical significance of the observed change. Several concepts have been developed to determine the clinical significance of measured changes. The most commonly applied concept of clinical significant change is described briefly below (e.g., Jacobson & Truax, 1991). Jacobson and Truax's approach provides a statistical criterion that allows the determination of the amount of change that could be considered as clinically relevant for each patient. This concept is composed of two conditions: (a) Change from pretreatment to posttreatment must be reliable (i.e. likely not a mere consequence of random variation and measurement error) and (b) a patient's score after treatment must have a higher probability of belonging to healthy sample than to a distressed sample. To calculate the amount of change that can be considered reliable (or statistically significant), the pre-post difference is related to the measurement error of the applied instrument. The minimal amount of change considered to be reliable is the *reliable change index* (RCI):

$$RCI = 1.96 \times \sqrt{2 \times (SD \times \sqrt{1-r})^2}$$

where *SD* reflects the standard deviation of a reference sample and *r* the reliability (e.g., internal consistency) of the respective instrument in a similar sample.

For the determination of a cutoff score, Jacobson and Truax (1991) suggest three different options, depending on the available reference data for the applied instrument. Criterion A: Only data from a clinical reference sample is available. The cutoff score (C_a) is defined as two standard deviations ($2^*SD_{clin.}$) below the mean of a clinical reference sample ($M_{clin.}$). Criterion B: Only data from a healthy reference sample is available. The cutoff score (C_b) is defined as two standard deviations ($2^*SD_{nonclin.}$) above the mean of a nonclinical reference sample ($M_{nonclin.}$). Criterion C: Data from a clinical and nonclinical reference sample are available: The cutoff score (C_C) is defined as the value, which is equally likely to stem from the clinical or from the nonclinical sample.

Integrating the Results from Multiple Studies—Meta-analyses

Replication and Stage Models

Which of the designs described above is more appropriate for the evaluation of clinical interventions has been debated (e.g., Howard et al., 1996). There is consensus that a single study is not sufficient to consider an intervention as evidence based. Rather replications (repeated investigation of the same research question) in experimental as well as naturalistic settings are needed. Similar to medical research, a stepwise approach has been proposed for the evaluation of clinical interventions. The National Institute of Mental Health developed a stage model for testing a new treatment program, which stipulates clinical-experimental studies in stages 1 and 2. In stage 3, the generalizability and feasibility should be tested in quasi experimental

studies (e.g., Rounsaville et al., 2001). It is important to note that different designs answer different questions that all are important for a comprehensive evaluation of an intervention: experimental studies allow conclusions concerning the effect of a specific (e.g., newly developed) treatment approach under controlled experimental conditions. Quasi experimental and naturalistic studies give information about the generalizability of the results to clinical practice.

Meta-Analyses

The results of individual studies provide only limited information concerning the effectivity of an intervention. Given the problems of individual studies described above, an observed effect can always be a result of the selection of specific subjects, specific settings or designs, or other reasons (e.g., differences between the therapists in the experimental conditions). This is true both for results from naturalistic studies and RCTs. Therefore, replications are a pivotal threshold for all clinical-psychological research results. One possibility to integrate the results of several studies investigating a specific intervention is meta-analysis (e.g., Hunter & Schmidt, 2004). The aim of a meta-analysis is to summarize studies focusing on a particular research question and aggregate them statistically. The effect sizes reported in the original studies are extracted. As described above, an effect size can be, for example, a correlation (r) or a standardized mean difference (d). In a next step, these effect sizes are aggregated for all studies that are included in the meta-analysis, i.e. an overall effect size is calculated. Given the fact that meta-analyses are based on the results of several original studies, conclusions can be derived on a broader evidence base. However, in order to interpret the results of meta-analyses it is important to note that they might rely on very different outcome measures and heterogeneity with regard to the realizations of the treatments (i.e., "comparing apples and oranges"). Another important criticism concerns the dependency of meta-analyses on the quality of the original studies ("garbage in, garbage out"). Therefore, new meta-analyses often take into account the quality of the included original studies (e.g., design, sample size, etc.) as well as differences in the results for different outcome measures (e.g., Hunter & Schmidt, 2004). These, as well as other potentially influencing variables, can be obtained for each study and tested with regard to their effects on the overall effect size estimate in so called *metaregression analyses*. If data on individual patient characteristics that might influence the overall effect size estimate are available, *individual patient-level meta-analyses* might be a more reliable option to analyze moderating effects.

Recently an extension of conventional meta-analyses found its way into clinical research, namely *network meta-analyses*. While conventional meta-analyses only allow inferences about treatments that were directly compared to each other in the original studies, network meta-analyses also allow indirect inferences (e.g., Lumley, 2002). That is, if many original studies directly compared treatment A with treatment B as well as treatment B with treatment C, network meta-analyses can provide indirect evidence on the comparison between treatments A and C, which were not directly compared. However, due to the assumption that treatment B is comparable in the studies comparing A and B and those comparing B and C, indirect evidence from network meta analyses is especially prone to bias induced by conceptual heterogeneity (e.g., Mills, Thorlund, & Ioannidis, 2013).

Is the Intervention Effective for this Specific Patient?

Clinical research claims to produce results that are relevant to clinical practice. One type of evidence relevant to practice can be derived from the efficacy and effectiveness studies already described. Using the strategies described above (RCTs, naturalistic studies, meta-analyses), the

average effectiveness of an intervention can be evaluated (for specific patient groups). Intervention strategies that have been shown to be effective in studies with these designs are called "evidence based." This label indicates that these intervention strategies are promising for the treatment of patients with the respective symptoms and disorders. For a detailed description of research-supported treatments and their evidence base we refer to the website of the Division 12 of the APA (http://www.div12.org/psychological-treatments/, retrieved April 3, 2017). However, results from these studies are based on univariate or multivariate mean comparisons averaged over all patients. Interindividual variation is neglected and considered *error variance*. From this "average change," it can only be concluded that an intervention is effective "on average" (i.e. for the average patient), but not whether it is effective for a specific patient. While the research designs described so far provide evidence on a group level, the following designs are more concerned with evidence on an individual level.

Single Case Research

In single case studies, one specific area is investigated intensively. Due to the lack of controlled conditions, traditional case studies are limited with regard to generalizable conclusions. However, they are a source of generating new hypotheses and developing new intervention techniques. It is also possible to study rare events with single case studies. Having a high heuristic validity, case studies are often used when introducing new approaches and techniques in clinical psychology. Problems lie in the ambiguity of possible alternative explanations as well as in the questionable generalizability to other patients or situations. Part of these limitations can be addressed via single-case experiments or single-case quasi experiments. The basic principles of the single-case experiment are identical to those of group experiments. However, instead of comparing groups, the conditions are realized within persons over time. That is, observations or assessments of behavior of the patient are made repeatedly over time in different conditions. For experimental single-case research, a series of designs were developed (compare e.g., Barlow, Nock, & Hersen, 2009; Kazdin, 2013). Two of these designs, the *A-B-A-B design* and the *multiple baseline design* are briefly described in the following. In the *A-B-A-B design,* after assessment of the baseline (A), the intervention (B) is implemented, followed by another assessment of the baseline (A). During the repeated baseline phase, the effect that was produced during the first intervention phase is regularly reduced. Therefore, an additional intervention phase (B) follows in order to control the effect.

Multiple baseline designs use repeated assessments of the baseline in different situations or for different problem behaviors. If a single case experiment can be conducted with more than one participant, it could be even useful to vary the number of baseline assessments. If, for all tested individuals, their problems improve after the intervention started, despite varying numbers of baseline assessments, it is likely that these improvements are caused by the intervention.

Single case studies vary in the assessment of baselines and the way the intervention is conducted. Experimental or quasi experimental single case studies are analyzed via graphical approaches, analyses of variance and time-series models.

Patient-focused Research and Quality Management

Traditionally, the introduction of new therapeutic strategies or treatment approaches is based on a clinical idea proposed by a researcher or clinician. At this stage, research is seldom part of the development process. Therefore, it is pivotal to accompany the introduction of new teatment concepts with rigorous research prior to a broad dissemination of this approach. All too often practitioners need to save themselves from prematurely jumping on the bandwagon of a newly developed paradigm. It is therefore important for clinicians to be able to read,

understand, and integrate empirical studies in a way that allows them to evaluate an intervention's evidence base. However, even if several original studies and meta-analyses have shown that an intervention is effective on average, we cannot conclude weather this intervention works for a particular patient (e.g., Howard et al., 1996). A continuous monitoring of patient progress by means of repeated assessments of outcomes is therefore needed in any treatment. This kind of progress monitoring allows the information to be fed back to the therapists who are thus enabled to directly integrate the so gained knowledge to optimize their strategy (e.g., Lambert, 2007). This research design involves fine-meshed repeated assessments over the course of treatment. Due to its focus on the individual patient, this paradigm is called *patient-focused research* (Howard et al., 1996, Lutz, de Jong, & Rubel, 2015). Based on large-scale data from patients who have already been treated, it is possible to deduce predictions for the treatment course of a newly incoming patient. These predictions could support the selection of the most promising treatment for this new patient (e.g., DeRubeis et al., 2014; Lutz, Leon, Martinovich, & Stiles, 2007). That is to say, this patient could have a more positive prognosis if receiving treatment A than receiving treatment B. In that way *patient-focused research* is for psychological treatments, what *personalized medicine* or *precision medicine* is for medical treatments (Hamburg & Collins, 2010; National Research Council (U.S.) Committee on a Framework for Developing a New Taxonomy of Disease, 2011).

During the course of a treatment, these individual predictions could serve as benchmarks to which the actual course of change of a patient can be compared. As such, patient-oriented research provides evidence, which is *practice-based* and directly applicable to ongoing treatment (Castonguay, Barkham, Lutz, & McAleavy, 2013). This application of *patient-focused* research makes it a form of an ongoing *quality management* as well. Patient progress is compared repeatedly with what could be expected for that individual patient. If a patient is not progressing as intended, an adaption of the intervention may be necessary.

How, for Whom, and under which Conditions do Clinical Interventions Work?

Knowledge about the ingredients that make clinical interventions effective and the mechanisms through which they work can help to optimize our treatments, making them more effective and efficient. An important distinction to make at this juncture is that of *common and specific factors* of psychotherapeutic interventions. While common factors are those that are shared by all psychotherapeutic interventions, such as the expectancy of the patient that somebody will help him, the belief of the therapist that he provides an effective treatment and a trustful therapeutic relationship, specific factors are techniques that are unique to different therapeutic orientations. For example, the dispute of dysfunctional beliefs via Socratic questioning is a method that is predominantly applied in cognitive therapies, while the interpretation of dreams is a technique specifically present in psychoanalysis. There is an ongoing debate, whether *common* or *specific factors* are responsible for therapeutic change (e.g., Hofmann & Barlow, 2014). Process research investigates these mechanisms of action underlying clinical interventions.

Methods of Process Research

An extensive collection of data is common to all approaches of process research (e.g., through session-by-session assessments with questionnaires or video analyses). Therefore, from a technical point of view, process research profited strongly from the advancements of computer systems (e.g., touch screen data entries), which enable large datasets to be depicted and processed with respect to different aspects of the therapeutic process. The continuous application

of session report questionnaires at the beginning or end of each therapy session can, for example, document the individual progress of an intervention. By adding post hoc ratings of videotaped sessions, it can be determined which central mechanisms were realized at which point in time, and how they were related to treatment outcome. A central aspect is the selection of the appropriate observation entity. Single words, gestures, episodes, entire sessions, time intervals of different duration or entire treatment phases up to a number of sessions can be investigated (Crits-Christoph et al., 2013). In process research, *qualitative methods* are also often applied. These are more concerned with the qualities of phenomena than their quantification. By doing so, qualitative methods emphasize the meaning for the participants and concentrate on language use during the intervention (e.g., Lutz & Knox, 2014). Consequently, the analyzed data are primarily words, from which interpretations, constructs, and theories are deduced, which stipulate future qualitative and quantitative investigations (Kazdin, 2013).

Dismantling and Additive Designs

Studies that specifically test particular therapeutic ingredients are called dismantling studies. In these studies, intervention programs are dismantled and versions in which systematically specific components are left out are tested against each other in RCTs. If the effects of a program are reduced, if a specific ingredient is left out, this provides evidence for the importance of that specific component. In additive designs, an existing approach is tested against the same treatment plus a specific component that is newly added. In an RCT, whether the extended treatment is able to augment the effects of the traditional approach is then tested. Such research strategies enable the identification of potential mediators in the relation between the intervention (independent Variable; IV) and the outcome (dependent Variable; DV).

Mediators and Moderators of Clinical Interventions

If we are interested in the mechanisms through which treatments work, statistically this is a question of mediation. Mediation describes a specific relationship between three or more variables. In the simplest case, the relation between two variables, an independent variable (IV; e.g., treatment: yes or no) and a dependent variable (DV; e.g., depressive symptoms) comes about due to a mediator variable (MED; e.g., dysfunctional beliefs). If complete mediation is present, the total effect of the IV on the DV is mediated through the MED. That is to say, without a change in the MED (e.g., dysfunctional beliefs), there would be no difference in the DV (e.g., depressive symptoms) regardless of the IV (e.g., treatment or no treatment). However, that is a rare scenario in behavioral research. More often partial mediation is observed. In partial mediation the total effect does not go through the mediating variable. Rather the total effect splits into the indirect effect (IV → MED → DV) and the direct effect (IV → DV). Mediation is one way to identify the working mechanisms of clinical interventions. However, additional conditions must be met to establish a mediation as a causal mechanism. For an in-depth discussion of causality and mediation, refer to MacKinnon, Lockhart, Baraldi, and Gelfand (2013).

As in mediation analyses, moderator models also describe relations of three or more variables. However, in moderation analyses, the IV does not influence the moderating variable (MOD; e.g., sex). Rather, the MOD influences the association between the IV and the DV. If a treatment is more effective for woman than for men, sex is a moderator of the treatment effect. Thus, moderators tell us something about the differential effects of interventions (i.e. "for whom"). It is important to note that the difference between moderation and mediation is not always clear cut, and many combinations of both are possible (e.g., MacKinnon et al., 2013).

Summary

The present chapter provided an overview of the most important methods of clinical psychology. Clinical researchers as well as clinicians must be acquainted with these concepts in order to be able to advance clinical science and provide treatments with a firm evidence base. In times when clinical psychology is becoming more and more heterogeneous in terms of therapeutic approaches, clinicians must be able to use the existing evidence to separate the wheat from the chaff. Without a firm understanding of research methods, clinicians could hardly accomplish this task. However, we showed that knowledge on the evidence base of an intervention is not enough to succeed in everyday clinical practice. Rather, clinicians need methods to evaluate their own work and tailor treatments to the specific needs of their patients. On the road to improvement, it is critical to know where one's strengths and weaknesses lie. A continuous evaluation of personal clinical practice can thus help clinicians to improve their strategy for individual patients, as well as their general clinical abilities.

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2

Classification Systems across the Globe

Jan Christopher Cwik and Jürgen Margraf

Introduction

Humankind has a propensity for classification. We all constantly use categories such as big or small, mine or yours, good or bad, national or foreign. Considering the revival of nationalism today, the latter example points to the potential dangers related to classifications, in particular when they occur implicitly or intuitively. What applies to humankind in general apparently applies to experts even more. Classification is assumed to be the foundation of academic research. The question is whether these processes are the result of native or learned needs, or if there is actually an advantage in classifying information. If so, does this advantage also apply to the classification of mental disorders, and to psychiatric and psychotherapeutic classification? In this field, the aim is to conduct a rapid, comprehensive, and accurate assessment to offer the best available intervention. This applies to decisions regarding therapeutic interventions, the collection of expert reports, and the entire field of research.

At first, classification of "mental disorders" was a part of the medical evaluation of an illness. Psychoanalysis brought about a shift in understanding mental disorders. While for long the psychoanalytic approach was the principal way to classify mental illness, the development of psychology as an empirical science brought new ways to define mental disorders, and thus, partly discarded psychoanalytic concepts. This led to wide-reaching turf battles between different approaches as well as within schools of thought. Now it seems that the psychotherapeutic community is increasingly striving to optimize the classification of mental disorders.

Apart from academic and therapeutic considerations, classification also has a political and sociocultural background. This is best illustrated in trauma-related disorders. As a consequence of the Vietnam War, it was politically important to add the diagnosis of posttraumatic stress disorder to classification systems (Scott, 1990). This gave traumatized soldiers the right of recourse and enabled them to receive therapeutic help (Gersons & Carlier, 1992). Later on, the diagnosis of acute stress disorder was introduced, although without adequate empirical evidence of the existence of this diagnosis, to improve research in the field of acute stress reactions, and to ensure the availability of therapeutic interventions close to a traumatic event (Marshall, Spitzer, & Liebowitz, 1999). Countries with federal social security systems (e.g., United States or Germany), in particular, need such diagnoses to facilitate health insurance funding for cases.

In recent years there has been a wide-reaching discussion on the applicability of diagnostic criteria to different cultures, and on race- and culture-related diagnostic biases. For instance, there is evidence of overdiagnosis of schizophrenia in African American patients with bipolar

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disorder (e.g., Payne, 2012). Countries with a Western cultural background—especially the United States—traditionally dominate the classification of mental disorders according to the World Health Organization (WHO) (Regier, Kuhl, & Kupfer, 2013). As a result, historically grown concepts of mental disorders of countries or cultures have only rarely been taken into consideration in official classification systems.

This chapter aims to give a comprehensive overview of the development and administration of classification systems used worldwide. The *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) and the *International Classification of Diseases, Injuries and Causes of Death* (*ICD*), the two main classification systems of Western cultures will be introduced and discussed. As Western psychoanalytic and psychodynamic classification systems, the *Operationalized Psychodynamic Diagnosis* (*OPD*) and the *Psychodynamic Diagnostic Manual* (*PDM*) will also be discussed. Subsequently, classification systems of mental illness used in other cultural regions will be presented. This concerns the *Chinese Classification of Mental Disorders* (*CCMD*), the *Cuban Glossary of Psychiatry* (*GC*), and the *Latin American Guide of Psychiatric Diagnosis (Guía Latinoamericana de Diagnóstico Psiquiátrico; GLADP).* Finally, specific classification systems applied in the field of psychiatry and psychotherapy will be described. These include the *Manual for the Assessment and Documentation of Psychopathology* (*AMDP*) and the *International Classification of Sleep Disorders (ICSD)* as specific categorical classification systems as well as causal network approaches and the *Research Domain Criteria* (*RDoC*) as noncategorical classification systems.

Classification Systems in Western Cultures

Atheoretical Classification Systems

Currently, the two most important international diagnostic systems are the *Diagnostic and Statistical Manual of Mental Disorders* of the American Psychiatric Association (APA) and the chapter about mental disorders in the *International Classification of Diseases, Injuries and Causes of Death,* published by the World Health Organization. Clinicians and researchers from different orientations use both categorical diagnostic systems worldwide. Standards, as set by *DSM* and *ICD,* ensure reliable diagnoses and are useful for the definition of an official classification of mental disorders.

For both diagnostic systems, revisions have been published at irregular intervals, so that the number of the edition is added to the abbreviation (e.g., "*ICD-10*" refers to the tenth edition of the *ICD* system, "*DSM-IV-TR*" to the fourth and text-revised (*TR*) edition of the *DSM*). The most recent and common versions are the *DSM-5,* published by the American Psychiatric Association (2013), and the *ICD-10*, published by the World Health Organization (1992).

The *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*)

The history of *DSM* as a categorical classification system began with an awareness of the lack of diagnostic reliability and the absence of standardized techniques for the classification of mental disorders. Thus, the APA proceeded to revise the *DSM* based on the successful *Research Diagnostic Criteria* (Feighner et al., 1972; Robins & Guze, 1970; Spitzer, Endicott, & Robins, 1977) for the investigation of the psychophysiology of depression by the National Institute of Mental Health (for a more detailed overview of the development of *DSM*, see Shorter, 2013).

The *DSM-5* introduced changes in the fundamental structure of the *DSM,* like the organization of chapters, and numerous content revisions within diagnostic criteria were made. These

ranged from minor changes (e.g., adding a 6-month criterion to anxiety disorders, the reduction of binge eating behavior in a defined time period in bulimia nervosa, or adding a requirement for two different situations with fear or anxiety in agoraphobia) to major revisions (e.g., dimensional assessment of alcohol use disorder and autism, revision of the traumatic event criterion and other criteria of posttraumatic stress disorder or the summary of former somatoform disorders to the new listed somatic symptom disorder) (for more details about the highlights of changes form *DSM-IV-TR* to *DSM-5,* see: American Psychiatric Association, 2013, pp. 809–816). Furthermore, the distinction between disorders diagnosed in adulthood and "disorders usually first diagnosed in infancy, childhood, or adolescence" was discarded and an alternative *DSM-5* model for personality disorders was added.

Whereas a multiaxial assessment (multiaxial assessment = judged on several dimensions—so called axes—simultaneously) was the basic principle of the fourth edition of *DSM*, *DSM-5* moved to a nonaxial documentation of diagnosis. Former Axis I (clinical disorders), Axis II (personality disorders and mental retardation), and Axis III (general medical conditions) were combined. *DSM-5* no longer contains a classification system for the assessment of psychosocial and environmental problems (*DSM-IV,* Axis IV: psychosocial and environmental problems). Instead, it refers to a selected set of *ICD-9* and *ICD-10* codes. The global assessment of functioning scale that was used in *DSM-IV* to assess Axis V (global assessment of functioning) was excluded. The second version of the WHO Disability Assessment Schedule is proposed for the assessment of global functioning and is included in *DSM-5*. This schedule is widely used in medicine and healthcare, so the assessment of global functioning can be more easily compared to medical judgments.

Another wide-ranging modification of *DSM* concerns the consideration of cultural concepts with respect to mental disorders. This is reflected in the "glossary of cultural concepts of distress" describing several concepts like ataque de nervios (an emotional upset, including anxiety, anger, or grief among Latinos), Dhat syndrome (South Asian cultural explanation for semen loss in young men), or Taijin kyofusho (anxiety and avoidance of social interactions because of fearing to act inadequate or offensive to others) and their related conditions in other cultural contexts and in *DSM-5*. Furthermore, *DSM-5* assesses the relationship of mental disorders with cultural bound syndromes, and presents a cultural formulation interview for the assessment of the association between a patient's cultural background and clinical presentation and care.

The *International Classification of Diseases, Injuries and Causes of Death* (*ICD*)

Since 1996, the current tenth edition of the *ICD* is obligatory for all member nations of the WHO. However, official coding system of the *ICD-10* was quite recently scheduled for implementation in the United States (October 1, 2015).

ICD-10 is strongly aligned with the *DSM-IV* with respect to the chapter on mental disorders. On the one hand, this is reflected in a detailed criteria-based description of mental disorders, a detailed description of required symptoms, and an annexation disorder concept (instead of illness). On the other hand, there are still discrepancies with respect to several categories. Among others, these affect the definition of schizophrenia and schizoaffective psychoses, the definition of a traumatic event with respect to the criteria of posttraumatic stress disorder, and a different emphasis of agoraphobia and panic attacks (which has, in turn, been annexed in *DSM-5*).

In addition, some mental disorders are entirely missing (e.g., narcissistic personality disorder of bipolar disorder II). Another relevant distinction is the fact that the *ICD-10* has been

published in several different editions, whereas the most relevant one seems to be the edition with clinical descriptions and diagnostic guidelines (World Health Organization, 1992). In the *ICD-9*, the clinical descriptions are more detailed and more closely aligned with the *DSM*-classification, but do not comprise diagnostic criteria that can be clearly operationalized. They are also less well structured and more verbose (cf. Mombour, 1995). There are about three times more descriptions in *ICD-10* compared to the *ICD-9*. The research criteria in *ICD-10* use an alphanumerical instead of a numerical coding system. Mental disorders are coded starting with the letter F (reflecting the fifth chapter of *ICD*) and followed by a maximum four-digit numerical sequence. There is a theoretically possible range of codes ranging from F00.00 to F99.99.

Furthermore, the *ICD-10* allows a multiaxial assessment on three axes. The advantage of this procedure is that a wide range of clinically relevant information can be considered. The multiaxial approach ensures a focus not only on specific disorders but also on aspects of social environment, performance ranges, and somatic factors. At the same time, a distinct assessment of heterogeneous data is ensured (data are more systematized).

Since 2007, the eleventh edition of the *ICD* (*ICD-11*) has been in progress and the final draft will presumably be published in 2018. The current status of the draft is available online (http://apps.who.int/classifications/icd11/browse/l-m/en, retrieved April 3, 2017) and updated daily.

Theory-based Psychoanalytic and Psychodynamic Classification Systems

Beside *DSM* and *ICD* as global classification systems without a theoretical basis, there are also classification systems proposed by psychoanalytic and psychodynamic associations: the *OPD* system and the *PDM*.

The Operationalized Psychodynamic Diagnosis (*OPD*)

For a long time, psychoanalytic and psychodynamic psychotherapists considered the empirical operationalization of unconscious psychological processes as unsolvable paradoxes. Additionally, psychoanalytic principles and models have been considered to be unclear and insufficiently empirically verifiable (e.g., Grünbaum, 1993).

The revolution of the *DSM* and *ICD* in the 1980s and 1990s widened the gap between psychiatric and empirical-psychological research, on the one hand, and between psychoanalytic-psychodynamic research and practice, on the other. This was caused by a lack of acceptance of the classification of mental disorders by the psychoanalytic-psychodynamic school of thought. However, a network of psychodynamic researchers and practitioners developed the *OPD* system for psychodynamic dimensions as an extension to *ICD-10*. In line with traditional psychoanalytic theories, the OPD Task Force aimed to offer a diagnostic system that is not subject to change. Despite the initial aim to offer a constant system, in the meantime a second edition (*OPD-2*) has been published (Arbeitskreis *OPD*, 2014; OPD Task Force, 2008).

The *OPD-2* consists of five assessment axes that are theoretically integrated and have undergone some extensions and adjustments: (a) Experience of illness and prerequisites for treatment: this axis is used for the assessment and description of the type and severity of the present disorder. It contains a basic module as well as a forensic and a psychotherapeutic module. (b) Interpersonal relations: on this axis clinicians assess both dysfunctional and functional patterns of relationships as well as resources, based on the understanding of interpersonal relationships according to the circumplex model of social behavior (Benjamin, 1993). (c) Conflict: psychodynamic repetitive conflicts are described on Axis III. In contrast to the general long-term orientation of *OPD*-2, clinicians use this axis for the cross-sectional operationalization of two main conflicts but also include biographical information to assess whether these conflicts are actually repetitive. (d) Structure: the patient's structure is defined as the

availability of psychological functions to regulate the self and its relationships to interior and exterior objects (see Arbeitskreis *OPD*, 2014, p. 255). On this axis, the clinician rates each self- and object-related abilities and capacities. (e) Mental and psychosomatic disorders: Axis V is used for a description and integration of mental and psychosomatic disorders according to Chapter V (F) of the *ICD-10*, and for the description of mental disorders according to *DSM-IV* and physical diseases.

The *Psychodynamic Diagnostic Manual* (*PDM*)

Based on critical appraisals of the paradigm shift from a so-called "inferential" approach to a "descriptive" approach that was initiated by the *DSM*, five national and international psychoanalytic organizations founded a task force for the development of a psychodynamic alternative to *DSM* and *ICD* (McWilliams, 2011). The *PDM* (PDM Task Force, 2006) is based on psychoanalytic and psychodynamic theories. According to this approach, symptoms of mental disorders are seen in a hierarchical way as the result of a person's personality type and the corresponding mental functioning against the background of this personality type. Based on the integration of *ICD* and *DSM* diagnoses, clinicians can use *PDM* as an alternative to *ICD* or *DSM* as well as a supplement (Lingiardi, Mcwilliams, Bornstein, Gazzillo, & Gordon, 2015). In line with this underlying theoretical approach, the assessment of patients follows an hierarchical structure, which also depends on the age of the person assessed. Accordingly, *PDM* is divided into two age-related assessment parts and a third part illustrating underlying theories.

The first part is the section for the assessment of adults. Taking the personality of an adult person as a starting point, the assessment of adults takes place on three hierarchical axes: (a) Personality patterns and disorders axis: on this axis clinicians continuously assess patients' personality, which builds the basis for the following assessment. As the name suggests, the aim of this axis is to give the clinician a complete picture of a patient's personality type, without reference to the extent of the personality type. (b) Profile of mental functioning axis: based on the individual personality type, the *PDM* also provides a continual assessment of the person's mental functioning. Mental functioning is operationalized according to aspects such as the capacity for regulation, attention, and learning or defensive patterns and capacities. (c) Subjective experience axis: this axis includes *DSM-IV* Axis I disorders as a result of the personality type and the corresponding mental functioning. Finally, *PDM* affords several case illustrations to give unversed clinicians an idea of how the manual is used.

The second part is for the assessment of infants and very young children as well as children and adolescents. Unlike in the assessment of adults, clinicians are encouraged to assess (a) the mental functioning axis first, followed by (b) the emerging personality patterns and disorders axis, and (c) the subjective experiences of symptom patterns axis. The argument for this changed order in assessment is the theory that children and adolescents do not exhibit a completely developed personality type, and that the development of personality is still in progress. Thus, the assessment of children and adolescents is placed on the same three hierarchical axes as in adults, but in a different order.

Currently, the PDM Task Force is developing the second edition (*PDM*-2; for more information see Lingiardi et al., 2015).

Classification Systems in Non-Western Cultures

All classification systems presented above can be considered Western systems, even if they are defined as international. Several classification systems related to other cultural backgrounds have been published, more or less closely related to *ICD* and *DSM*. In the following, the three

most important classification systems of non-Western cultures will be described: the *CCMD*, the *GC*, and the *GLADP*.

The *Chinese Classification of Mental Disorders* (*CCMD*)

The current third edition of the *CCMD* (*CCMD*-3) was published by the Chinese Society of Psychiatry (2001). Targets that were given by the Chinese Society of Psychiatry for the construction of *CCMD-3* were the improvement of psychiatric services for Chinese patients with a consideration of social needs in China, Chinese cultural background and tradition, maintaining the superiority of *CCMD*, matching *ICD* and *DSM* systems, and making *CCMD*-3 concise and manipulable (Chinese Society of Psychiatry, 2001, p. 173).

The *CCMD-3* consists of a basic part that comprises diagnostic criteria and is the classificatory standard for Chinese psychiatrists. It also contains an optional section giving treatment principles and outlines of nursing programs (Chen, 2002).

Overall, *CCMD-3* is a diagnostic system for classification that considers etiology, pathology, and symptomatic aspects of mental disorders to the greatest possible extent in agreement with *ICD-10*. Nevertheless, despite the aim of agreeing with *ICD-10*, there are still several conceptual differences. One of these concerns sexual orientation disorders comprising homosexuality, bisexuality, and other or unspecified sexual indirection disorders. According to *CCMD-3,* these sexual orientations are "not necessarily abnormal in terms of sexual behavior alone" (Chinese Society of Psychiatry, 2001, p. 305), which could be interpreted as allowing some diagnostic freedom for pathologizing sexual orientations. However, in contrast to the phenomenological approach of *ICD* or *DSM*, *CCMD-3* follows an etiological and symptomatological approach (Mendelson, 2003). Furthermore, CCDM-3 points out that sexual orientation disorders accompanied by mental disorders cause suffering, which is relevant for psychiatric or psychotherapeutic treatment (Chinese Society of Psychiatry, 2001, p. 293). In addition to these differences, in *CCMD-3* some mental disorders have consciously been neglected because they are considered unsuitable for Chinese culture and tradition, like excessive sexual drive, emotionally unstable personality disorder (borderline type), or gender identity disorder of childhood (Chinese Society of Psychiatry, 2001, p. 177). However, other culturally specific disorders seem odd from a Western view point, such as mental disorders due to qigong—a mental disorder that occurs after the practice of qigong practices (like keeping concentration on some points, pondering and reading silently, relaxation and regulating respiration), and is characterized by keeping the individual in a state that is induced by these exercises (see Chinese Society of Psychiatry, 2001, p. 253)—mental disorders due to witchcraft or koro—the fear that sexual organs are shrinking or retracting and will disappear into the abdomen, which could result in death (see American Psychiatric Association, 2013, p. 247). The retention of the concepts of hysteria and neurosis are also seen from a more traditional view. In *CCMD-3,* hysteria is linked to dissociative disorders like hysterical identity disorder (dissociative identity disorder) or hysterical amnesia (dissociative amnesia) and the category of neuroses comprises anxiety disorders (inclusive obsessive-compulsive disorders) and somatoform disorders. However, in contrast to some traditional concepts, the publication of *CCMD-3* was also innovative with a view to *DSM-5*. For instance, *CCMD-3* comprises pathological gambling, trichotillomania, or suicidal behaviors as mental disorders and lists stress-related disorders separately.

Nevertheless, *CCMD-3* is an established diagnostic system used in a country with about a fifth of the global population and with significant input on psychiatric research. Thus, professionals should be, at least, slightly familiar with this diagnostic system.

The *Cuban Glossary of Psychiatry* (*GC*)

The current third edition of the *GC* (*GC-3*; Otero-Ojeda, 2000) is an adaption of *ICD-10*. *GC-3* is a multiaxial system, consisting of three axes: (a) clinical diagnosis, (b) disabilities, and

(c) adverse environmental and personal factors that are similar to the first axes of the *ICD-10*. The Cuban system lists three additional axes: (d) other environmental and personal factors (e.g., living alone or charisma and attractiveness), (e) abnormal psychological mechanisms (e.g., making (curious) decisions or bad communication skills), and (f) other significant information (e.g., electrophysiological or questionnaire data).

GC-3 provides a detailed guideline for the use of the manual, followed by definitions of terms and precision of categories that are used for classification of mental disorders. It illustrates the changes in regard to *ICD-10* and lists the principle categories of mental disorders. *GC-3* comprises 100 comments and modifications to the *ICD-10* criteria (Otero-Ojeda, 2002). Furthermore, after the assessment part of *GC*-3, an overview is given of syndromes that are known in other cultures but not included in *ICD-10,* which were later included in the *GLADP* (see below). Conclusively, *GC*-3 gives a historical abstract and annotations of psychiatry and the development of several classification systems.

The Latin American Guide of Psychiatric Diagnosis (*GLADP*)

The successes of other regional classification systems initiated the Latin American Psychiatric Association to develop a regional adaption of *ICD-10* with due regard to realities and the need of the Latin American psychiatric system (Mezzich, 2013; Mezzich & Ruiperez, 2015). Thus, the Latin American Psychiatric Association published the *GLADP*. Influenced by revisions of *ICD-10* and *DSM-IV*, experts from all Latin American countries (except El Salvador, Nicaragua, Panama, Puerto Rico, and Uruguay), Spain, and the Pan American Health Organization constituted workgroups for a revision. After the revision process, the Latin American Psychiatric Association published a revised version (*GLADP-VR*; Asociaciòn Psiquiatrica de América Latina, 2012) in 2012. Attributable to developments in the diagnostics of mental disorders, the publication of *DSM-5* and the imminent publication of *ICD-11*, the Latin American Psychiatric Association holds out further revisions of *GLADP*. However, the currently available *GLADP*-VR is divided into five parts. (a) Historical and cultural framework: this first part is an introduction into Latin American cultural background (e.g., history, language), customs, ideals, and specific characteristics, with specific effects upon the expression of mental distress (Berganza, Mezzich, & Jorge, 2002). (b) Epidemiological basis and implications for public health: this part contains information about prevention, improvement of mental health, and integral diagnostics as well as information about epidemiological evidence related to psychiatric disorders in Latin America. This part provides information about the health system and politics in Latin America, a blind spot in Latin American mental health. Finally, specified areas for future research are named. (c) Evaluation, diagnostic formulation and plan for clinical attention: *GLADP*-VR gives a clear recommendation of a stepwise diagnostic process and introduces the humanistic person-centered integrative diagnosis model (Mezzich et al., 2010). Next, it provides a plan of clinical attention that consists of two sections. In the integral diagnostic formulation section, demographic data, all mental disorders, medical disorders, and disabilities are documented. Diagnosticians rate patients' wellbeing and functionality in several areas, and document risk and protective factors influencing the patient's health. The diagnostician estimates the patient's experiences, and expectations of the patient's health, related to identity and cultural reference, suffering, and potential health problems. The clinical attention plan section is used for the documentation of clinical problems, designated treatment interventions, and subsequent observations. These observations could concern solutions to reduce symptoms as well as relevant annotations or reconsiderations of former assumptions. (d) Psychiatric nosology: the fourth part of *GLADP*-VR is divided into sections of mental disorders according to *ICD-10*. Within these sections mental disorders are quoted with each symptom as it is named in *ICD-10*. Subsequently to criteria, relevant Latin American annotations are specified. These annotations can refer to the appearance of the whole syndrome or to specific symptoms.