

12

INTEGRATING SCIENCE AND PRACTICE IN AN ENVIRONMENT OF MANAGED CARE

JOHN F. KIHLSSTROM AND LUCY CANTER KIHLSSTROM

The relations between science and practice within psychology are currently strained, but they were not always so, and they need not be so in the future. This is because, for clinical psychology at least, there is no conflict between science and practice. In this chapter, we begin by reviewing the history and origins of clinical psychology and the Boulder model of the scientist–practitioner. Given recent developments within the field, and the emerging pressures from the larger environment, we then suggest a redefinition of the scientist–practitioner—a redefinition that may be required because of external threats to the past practices of clinical psychology. Clinical psychology is uniquely positioned to respond to these

An earlier version of this chapter was presented at the 103rd Annual Convention of the American Psychological Association, New York, in August 1995, as part of a Presidential Panel, “Healing the Science–Practice Wars,” cosponsored by Divisions 42, 12, and 29. This chapter is based in part on research supported by Training Grant MH15783 and Research Grant MH35856 from the National Institute of Mental Health. We thank the Internet subscribers to the Society for a Science of Clinical Psychology and MANAGED-BEHAVIOURAL HEALTHCARE lists for preliminary discussions of some of these issues.

threats and to take an active role in shaping the management of mental health treatment and practice in this country.

To that end, several overarching strategies are suggested. The strategies presented are overarching because this chapter is not intended to be a "cookbook" or a "how-to" manual. Rather, its purpose is to raise issues that are, and will be, important to the survival of clinical psychology, and its intent is to foster thought, dialogue, and action. The specific mechanisms that may be selected should be left to groups in various regions of the country because the intensity of and emphasis on issues may vary widely by geographic location.

CLINICAL PSYCHOLOGY FROM BOULDER TO GAINESVILLE

At the beginning of clinical psychology, 100 years ago, science and practice were thoroughly intertwined. When Witmer established the first psychological clinic, in 1896 at the University of Pennsylvania (Witmer, 1907/1996; see also Benjamin, 1996; Fagan, 1996; McReynolds, 1996; Routh, 1996), William James (1890/1980) had already published his seminal *Principles of Psychology*, making extensive use of clinical material in his chapters on consciousness and the self. And even before Ebbinghaus (1885) made the nonsense syllable famous, Theodule Ribot (1882) had published *Diseases of Memory*, attempting to derive basic psychological principles from observations of clinical cases of amnesia.

The modern field of clinical psychology had its origin in the years just after World War II, with the emergence of the Veterans Administration (VA) and the National Institute of Mental Health (Routh, 1994, 1997; for summary histories, see Hilgard, 1987; Humphreys, 1996; for enlightening personal histories, see Maher, 1992; Shakow, 1969). The framework for the new profession was provided by the 1949 "Boulder model" of the scientist-practitioner. In the early VA system, psychologists were mostly supervised by psychiatrists who had little research training and whose viewpoint was essentially psychoanalytic. According to the Boulder model, which dominated clinical training for at least the next two decades, competence in general psychology, and in research methods and statistics, was essential to the training of clinical practitioners.

In the Boulder model, the whole point of clinical psychology was to put psychotherapy, psychological assessment, and ancillary procedures on a firm scientific base and to make sure that the scientists who were creating this base had contact with the living material of the field. Clinical practice was to be part of a dialectical enterprise, both responding to and contributing to advances in knowledge of basic psychological processes (Davison & Lazarus, 1995). Practitioners were supposed to be active researchers using the best techniques at hand but also actively engaged in improving these

techniques. All practitioners were to be scientists, and although not all scientists were to be practitioners, at least there was a sense that scientists and practitioners were engaged in a common enterprise. As a result, training in clinical psychology culminated in the award of a scholarly degree, the Ph.D. Reinforcing the sense of common purpose, most clinical psychologists were employed in academic departments of psychology, medical schools, and state and VA hospitals, instead of in private practice.

All this began to change in the late 1960s and the early 1970s, as the Community Mental Health Centers Act of 1963 expanded the opportunities for the employment of psychologists. The rise of community mental health centers, and the prospects of national health insurance, raised the further question of whether clinical psychology should declare its independence of psychiatry. When this question was answered in the affirmative, clinical psychologists began to move into private practice in large numbers, and clinical psychology began a slow but inexorable shift away from the Boulder model.

The departure from the Boulder model has been exacerbated by recent shortages in academic positions, the further closing of inpatient facilities, and retrenchment in the medical schools that together have made the private practice of clinical psychology even more attractive as a career option. Moreover, the scientific community must bear some of the responsibility for this state of affairs: All too often, basic researchers have treated their clinical colleagues with benign neglect, to the point at which, in many of our best departments, either clinical training does not occur at all or it has been effectively segregated from the rest of the organizational unit (Beutler, Williams, Wakefield, & Entwistle, 1995). Either way, the effect has been to reduce the opportunities for interaction between scientists and practitioners, to the detriment of each.

The idea of the scientist-practitioner has not been abandoned, but it is increasingly being challenged. Whereas, in the years immediately following 1949, there was only one model for clinical training and practice, the 1990 Gainesville conference set out a number of alternatives to the Boulder model, some amounting to a pure practitioner model that emphasizes the acquisition of competence in specific clinical techniques, and the ingenuity of the individual practitioner in addressing the problems presented by the individual patient or client. In the pure practitioner model, research skills are deemphasized because most clinical psychologists do not have the time or opportunity, or perhaps the inclination, to engage in research. But to say that practitioners need not themselves be scholars is not to say that science is irrelevant to practice or that clinical practitioners can safely avoid training in general psychology, research methods, and statistics. The fact is that clinical psychology derives much of its status, including its independence from psychiatry and its claim to third-party payments for services rendered, from the assumption that its practices are

firmly based on scientifically validated principles and techniques. Thus, *there can be no conflict between science and practice, so long as clinical psychology wishes to retain its identity, autonomy, and status as a profession* (McFall, 1991, 1996).

REDEFINING THE SCIENTIST-PRACTITIONER

The previous discussion should not be misinterpreted: There is room for creative practitioners to go beyond established knowledge in constructing innovations. Systematic desensitization may have sprung from Hullian learning theory, but cognitive therapy had its origins in the creativity of practitioners (Beck, 1967; Ellis, 1962) who did not know anything about cognitive psychology—not least because at the time they were making their innovations there was so little cognitive psychology to know. Clinical innovation need not slavishly follow developments in basic research and theory; sometimes, it stimulates these very developments, so that science follows the lead of practice and not vice versa (Davison & Lazarus, 1995). Even so, the innovative scientist-practitioner adopts an essentially scientific stance in which enthusiasm for technique is tempered by a self-critical attitude, especially about pronouncements that appear unsupported by or incompatible with well-established scientific principles and in which case reports are followed quickly by properly designed and controlled studies of outcome or validity.

Much has been said and written about clinical practice as an art, in which the individual practitioner uses intuition and creativity to address the needs of the particular individuals who arrive at the clinic. This image, which derives from the notion of a “medical art,” is accurate in some sense: It takes intuition and creativity to fill in the gaps between the general principles adduced by scientific research and the particular circumstances of the individual case at hand. But this intuition and creativity is not unconstrained: It is grounded in principles uncovered by empirical science. To be explicit: Clinical psychology is an applied science, like engineering; to the extent that it is an art, it is an art like architecture. Engineers put scientific knowledge to practical use: In order to build a bridge that stays up and carries traffic properly, the engineer relies on principles of physics and geology. As Maher (1966) noted:

In order to build a bridge over a certain river, we must know the details of the soil mechanics, water flow, prevailing winds, topography, traffic usage, availability of labor and materials, and so on. When we consider all these, the total picture might not be like any other bridge that has ever been built. Nevertheless, none of the principles or assumptions that go into the final decisions could be made in contradiction to the laws of physics, economics, and the like. (p. 112)

Similarly, architects exercise a great deal of creativity and ingenuity in designing buildings and fitting them to their sites, but in the final analysis the test of whether the architect has done his or her job is whether the building stands up and is livable.

Like engineers and architects, then, clinical psychologists practice their art within the confines of what is sanctioned by scientific knowledge. To give examples that are perhaps closer to home for clinical psychologists, consider radiologists, who depend on the principles of anatomy and physics to locate and destroy tumors in cancer patients. Similarly, anesthesiologists rely on principles of chemistry and physiology to make sure that their patients feel no pain during surgery.

..... THE THREAT TO CLINICAL PSYCHOLOGY

Thus, clinical practice is based on, and constrained by, scientific knowledge. If that is really the case, then why has so much attention been given to the idea of a “science–practice war”? There is definitely a conflict between science and practice within psychology, but this is only a small part of a wider conflict: Psychotherapy in general, and clinical psychology in particular, are institutions under attack.

To refer to psychotherapy or clinical psychology as institutions may seem somewhat odd, but that is what they are. From a theoretical perspective, *institutions* are socially constructed, ordered, routine-reproduced, programs, rule systems, or patterns of behavior. Marriage, sexism, academic tenure, the handshake, the army, and insurance are all institutions (Jepperson, 1991). They have rules that have often been constructed and implicitly, if not explicitly, accepted by their members; they operate as relative fixtures in their respective environmental contexts; and they are accompanied by taken-for-granted accounts (Jepperson, 1991, p. 149).

Clinical psychology, and even psychotherapy, can be considered institutions because people believe that they require some level of formal education and training and that they should be guided by accepted methods of operation. For example, professional organizations like the American Psychological Association (APA) have constructed formal rules about who may practice clinical psychology, what kind of training is required, what types of settings may provide such training, and the appropriate professional conduct of individual practitioners. Not everyone may agree with the established rules that guide clinical training programs or that govern the practice of clinical psychology. However, few individuals who seek to engage in the practice, or organizations who train or employ such individuals (such as departments of psychology), are willing to ignore the precepts of governing bodies such as the APA.

However firmly entrenched clinical psychology might be as an insti-

tution, it is apparent that outside forces are questioning its status and attempting to change the rules by which it operates. Depending on the environmental circumstances, all social institutions are vulnerable to such attacks, and clinical practice is no exception.

During the 1980s and 1990s, a dramatic change occurred in the ways in which health care and mental health care are provided. In many parts of the United States, managed care is now widely accepted as a mechanism for providing mental health services. But managed care does not merely mean utilization review; rather it encompasses a number of practices designed to regulate the utilization of health care (Dorwart, 1990; Tischler, 1990; Zimet, 1989). It "encompasses a wide range of organizational forms, financing arrangements, and regulatory devices that vary in their impact" on client care (Mechanic, Schlesinger, & McAlpine, 1995, p. 19).

From one point of view, the tools of managed care, including precertification requirements, utilization review, closed panels of providers, and reimbursement mechanisms (other than fee-for-service), threaten the taken-for-granted rules that previously guided practice. For example, many clinicians were trained to develop treatment plans with their clients that included the type and duration of treatment that seemed best given the client's presenting problem. It was taken for granted that the clinician could be the best judge of what treatment was required by the client. Under managed care, often, precertification requirements and utilization reviewers seem to be making those judgments with, at times, little input from the clinician.

In addition, insurance companies and other third-party payers, employers, and consumers of service are questioning whether the treatment provided is worth the cost. How can they be sure that the treatment provided is the "best" or most effective treatment? How do they know when an employee or a family member is "better"? Are treatment modalities that take longer superior to short-term treatments? When should hospitalization be used, and when are outpatient or partial care facilities more cost effective?

Finally, clinical psychologists who practice psychotherapy have found themselves under attack by other professions that provide this service: psychiatrists, clinical social workers, marriage and family counselors, and even other psychologists (e.g., counseling psychologists). For example, those psychiatrists who are biologically oriented question whether the use of psychosocial approaches to mental disorders are at all efficacious. And, because some disorders do tend to respond to approaches that have a biological orientation (e.g., medication for depression and schizophrenia), those practitioners who are oriented more toward a psychosocial approach often find themselves on the defensive.

On the other hand, some clinical social workers have argued that their education and training allows them to focus holistically on the entire

gestalt of the client in his or her life situation rather than simply on individual psychological processes. And with that perspective, it is argued, they can better identify and treat more of the factors that facilitate or impede the treatment process. Furthermore, it is argued that this systems approach leads to improvements that persist longer and pervade the client's life more deeply. Nevertheless, because they also adopt a psychosocial approach to treatment, it would seem that clinical social workers would be natural allies as psychologists respond to attacks from biological psychiatry.

PSYCHOLOGY'S ROLE IN SHAPING THE MANAGED CARE OF THE FUTURE

There is no question that managed care represents a threat to the way clinicians have usually thought of themselves and to the way they are used to dealing with clients and patients. However, clinical psychologists and other social scientists have a role to play in setting the standards by which assessments and treatments are evaluated. In this way, clinical psychology has an opportunity to shape managed care.

With respect to managed mental health care, there indeed seems to be "more rhetoric than reason; more heat than light" (Feldman, 1992, p. 3). There is a faction in the managed care world that claims that much of psychotherapy is inefficient and ineffective. On the other hand, many practitioners can recount anecdotal horror stories about the ways in which managed care organizations have not necessarily served the best interests of the clients. In reviewing the problems that clinicians have with managed care, several themes tend to recur (Giles, 1993, p. 4).

1. Managed mental health care companies put dollars before patients.
2. Employees of managed mental health care companies merely feed the greed of the for-profit managed mental health care companies.
3. The quality and quantity of inpatient care is sacrificed to second-rate outpatient programs that rarely get the job done.
4. The quality of outpatient care suffers from managed care reliance on generic therapists with inadequate training and specialization.
5. Managed mental health care representatives are indifferent and hostile to provider opinions, preferring instead to make black-and-white decisions based on corporately derived cost containment rules.
6. In general, managed mental health care systems continuously place in jeopardy the lives of the very patients they are mandated to serve.

Feldman (1992) pointed out that because managed mental health care has not been around very long, there has been little in the way of dispassionate analysis and research. Much of the professional literature is replete with anecdotes and observations that tend to reflect the optimism of those who are seeking to manage mental health care and the unhappiness of those providers, both individuals and organizations, who find themselves being increasingly managed.

Practitioners have the opportunity to influence the way in which managed care organizations operate and managed mental health care is practiced in this country. The way in which clinicians can influence managed care has been a part of clinical training from the beginning. Having been trained in a scientific discipline, clinical practitioners have the education and skills to design studies that can demonstrate that what takes place in practice is efficacious and cost effective. By designing (or working with others to design) studies that examine outcomes and the differential effectiveness of treatment, clinical psychologists can assume an important role in mental health services research (Canter Kihlstrom, 1998; Woody & Canter Kihlstrom, 1997). By demonstrating a willingness to study their own practices, clinicians have a unique opportunity to effect change rather than merely react to it.

The management of mental health services has been inspired by the perceived (and real) increase in the cost of mental health and substance abuse services during the last decade (Feldman, 1992). However, it would be a mistake to assume that the debate about managed mental health care is just about economics. Cost and utilization have been the driving force of managed care in the past. Now, however, as rising costs have been contained (relatively), access to services, the outcomes of service, and quality of care must be the focus of any future system of service provision. And it is especially around the issue of quality that practitioners have the opportunity to make important contributions. By defining quality at a conceptual level, by constructing instruments by which to measure it, and by conducting studies of quality, including consumer surveys and other assessments, the field of psychology as a whole and clinical psychology in particular has much to contribute.

The debate over managed mental health care is also about professional status and autonomy. Many professionals fear that managed care threatens their autonomy. On the contrary, by responding positively to its demands, and making the case, through well-designed clinical studies, that specific mental health treatments are necessary, efficacious, and cost effective, clinical psychologists stand to *gain* status and autonomy, not lose it. On the other hand, if practitioners and clinical researchers refuse to conduct their own research on cost, quality, and access issues, managed mental health organizations will make these kinds of decisions with any information that is available—information that may not adequately represent the

true outcome of the therapeutic encounter. Thus, somewhat paradoxically, positive, constructive responses to managed care can actually benefit clinical psychology.

Clinicians should take the opportunity to shape and control managed care, because health care and mental health care in the future will be managed. The emphases, the mechanisms, and even the rules for managing care will most certainly evolve, but the days of fee-for-service health care in the United States are numbered. Health care and mental health care will be managed in one form or another. Practitioners need to accept that the notion of managed care, broadly defined (Mechanic et al., 1995), will not simply wither away. It is a burgeoning institution in its own right, and its proponents are quite strong, vocal, and armed with studies reflecting short-term outcomes.

The Need for Regulation

Part of the concern about managed mental health care is that it is unregulated (Adelman, 1990, as cited by Giles, 1993). Until very recently, little was known about the ways in which managed mental health care organizations function. In addition, many state insurance commissioners have little or no authority to monitor these organizations or to intervene on behalf of consumers when problems occur. Alliances need to be formed between state psychological associations and other organizations, providers, and facilities to lobby for legislation to establish guidelines for managed care organizations (Adelman, as cited by Giles, 1993). Several states (e.g., California) have been at the leading edge in attempts to regulate managed care companies (e.g., health maintenance organizations, or HMOs).

Practitioner-Owned Managed Care Organizations

A second course of action is less political in nature but requires active participation and commitment by practitioners. Those involved in mental health treatment services might examine how medicine has responded to managed care. A small but growing number of physicians are offering to sell their services directly to employers, thereby bypassing the "middleman"—the HMOs, insurance companies, and others (Freudenheim, 1995, p. D1). In the last several years, physicians across the country organized many new medical groups (Freudenheim, 1995, p. D1) and have even begun their own HMOs. Bradman (1989, 1994) argued for this new generation of care in the mental health field.

Establishing Clear Guidelines for Treatment

This approach can only succeed if the practitioners can convince employers that particular therapeutic interventions actually work. To that end, practitioners must establish clear, formal standards and guidelines for practice through the research efforts that were discussed earlier in this chapter. In addition, practitioners must more clearly understand the position of most employers: If an employee becomes ill and requires treatment, most employers are willing to spend money, through health care benefits, to help the employee get the required treatment so that the employee can return to work and function productively on the job. In short, the employer wants to see value for the dollars spent. It is up to the practitioner to demonstrate that the services provided are indeed worth the dollars that are spent to purchase them. This is not necessarily a cold-hearted position. Most people are willing to spend money on services of all kinds, every day. However, no one wants to spend money on services that are ineffective.

The Institute of Medicine, a branch of the National Academy of Sciences, defines clinical practice guidelines as "systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances" (Field & Lohr, 1990, p. 38). Most clinical psychologists in practice would be interested in the Guidelines on *Depression in Primary Care* that have been developed by the Agency for Health Care Policy and Research (AHCPR; see, e.g., Munoz, Hollon, McGrath, Rehm, & VandenBos, 1994). The AHCPR guidelines consist of a review of the empirical literature on detection, diagnosis, and treatment of major depression, and they end with primary care practice guidelines. Other guidelines such as the diagnosis and treatment of anxiety and panic disorder in the primary care setting are slated for development and release. Although formal guidelines may seem to represent an encroachment on the freedom of the individual practitioner, it is important to recognize that guideline development will continue. Clinical psychologists must actively participate in the formulation of these guidelines.

Establishing the Efficacy of Treatment Through Research

The key to survival for clinical psychologists is understanding the nature of mental disorders and their treatment, which means having scientific data to support clinical practice. And, of course, data can only be obtained through carefully controlled study designs. Practitioners, together with researchers in clinical psychology and mental health services research, are in the best positions to design and conduct such studies because they have access to clients' presenting problems, ongoing treatment plans, and outcomes. The appropriate strategy, then, is to conduct such studies, gather

clinical data into a reliable and valid database, and demonstrate that particular approaches are effective and efficient.

Some clinicians may turn to lobbying efforts to force the regulation of managed care. Such an approach will not address the fundamental issues that are clinical in nature. Other clinicians may seek to defeat managed care by simply resisting. That approach will not work either, for the simple reason that managed care will not go away. A more viable strategy is the formation of a strong, working alliance between science and practice through one or more of the broad mechanisms just discussed. As noted at the beginning of this chapter, it is necessary for practitioners to understand the environmental pressures (e.g., the penetration rate of managed care in a particular region, the supply of practitioners, contracting methodologies used by managed care companies in an area) in order to choose the proper strategy or combination of strategies.

CONCLUSION: FROM CONFLICT TO ALLIANCE

In the final analysis, it is not enough to say that there is no conflict between science and practice and conclude that science and practice can go their separate ways. Science needs practice to maintain contact with the living material of the field, and practice needs science to survive. Science can provide the means by which practitioners can understand which treatment works the best under what circumstance, what constitutes quality of care, and which treatments are cost effective. Armed with such information, clinicians can assume a more powerful position with respect to managed care and can maintain the status and autonomy that the profession seeks. Without these tools, the argument is too often reduced to the moral equivalent of a "he-said/she-said" argument between practitioners and managed care organizations.

Practitioners and clinical researchers can best focus energy on using scientific tools available to design studies, collect data, and draw valid conclusions that can contribute to the ongoing policy debate about what constitutes cost-effective and high quality mental health treatment. Managed care may seem like the enemy. And, indeed, some of its mechanisms and practices may not serve the clients or the therapeutic process. However, the real enemy is the reluctance to scientifically examine clinical practice and its outcome.

REFERENCES

- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.

- Benjamin, L. T. (1996). Introduction: Lightner Witmer's legacy to American psychology. *American Psychologist*, 51, 235-236.
- Beutler, L. E., Williams, R. E., Wakefield, P. J., & Entwistle, S. R. (1995). Bridging scientist and practitioner perspectives in clinical psychology. *American Psychologist*, 50, 984-994.
- Bradman, L. H. (1989). Contract directly for mental health care. *Business Insurance*, 17, 49-50.
- Bradman, L. H. (1994, July-August). Direct contracts for substance abuse benefits. *Journal of Health Care Benefits*, 8-11.
- Canter Kihlstrom, L. (1998). Mental health services research. In H. S. Friedman (Ed.), *Encyclopedia of mental health* (Vol. 2, pp. 653-663). San Diego, CA: Academic Press.
- Davison, G. C., & Lazarus, A. A. (1995). The dialectics of science and practice. In S. C. Hayes, V. M. Follette, R. M. Dawes, & K. E. Grady (Eds.), *Scientific standards of psychological practice: Issues and recommendations* (pp. 95-120). Reno, NV: Context Press.
- Dorwart, R. A. (1990). Managed mental health care: Myths and realities in the 1990s. *Hospital and Community Psychiatry*, 41, 1087-1091.
- Ebbinghouse, H. (1885). *Memory: A contribution to experimental psychology*. Leipzig: Duncker & Humblot.
- Ellis, A. (1962). *Reason and emotion in psychotherapy*. New York: Lyle Stuart.
- Fagan, T. K. (1996). Witmer's contribution to school psychological services. *American Psychologist*, 51, 241-243.
- Feldman, S. (1992). Managed mental health services: Ideas and issues. In S. Feldman (Ed.), *Managed mental health services* (pp. 3-26). Springfield, IL: Charles C Thomas.
- Field, M., & Lohr, K. (Eds.). (1990). *Clinical practice guidelines*. Washington, DC: National Academy Press.
- Freudenheim, M. (1995, March 7). Doctors, on offensive, form HMOs. *The New York Times* (p. D1).
- Giles, T. R. (1993). *Managed mental health care: A guide for practitioners, employers, and hospital administrators*. Boston: Allyn & Bacon.
- Hilgard, E. R. (1987). *Psychology in America: A historical survey*. San Diego, CA: Harcourt Brace Jovanovich.
- Humphreys, K. (1996). Clinical psychologists as psychotherapists: History, future, and alternatives. *American Psychologist*, 51, 190-197.
- James, W. (1980). *Principles of psychology* (Vols. 1 & 2). New York: Holt. (Original work published 1890)
- Jepperson, R. L. (1991). Institutions, institutional effects, and institutionalism. In W. W. Powell & P. J. DiMaggio (Eds.), *The new institutionalism in organizational analysis* (pp. 143-163). Chicago: University of Chicago Press.
- Maher, B. A. (1966). *Principles of psychopathology*. New York: McGraw-Hill.
- Maher, B. A. (1992). A personal history of clinical psychology. In M. Hersen,

- A. E. Kazdin, & A. S. Bellack (Eds.), *The clinical psychology handbook* (2nd ed., pp. 3–25). New York: Pergamon.
- McFall, R. M. (1991). Manifesto for a science of clinical psychology. *The Clinical Psychologist*, 44, 75–88.
- McFall, R. M. (1996). Making psychology incorruptible. *Applied and Preventive Psychology*, 5, 9–15.
- McReynolds, P. (1996). Lightner Witmer: A centennial tribute. *American Psychologist*, 51, 237–240.
- Mechanic, D., Schlesinger, M., and McAlpine, D. D. (1995). Management of mental health and substance abuse services: State of the art and early results. *The Milbank Quarterly*, 73, 19–55.
- Munoz, R. F., Hollon, S. D., McGrath, E., Rehm, L. P., & VandenBos, G. R. (1994). On the AHCPR depression in primary care guidelines: Further considerations for practitioners. *American Psychologist*, 49, 42–61.
- Ribot, T. (1882). *Diseases of memory*. New York: Appleton.
- Routh, D. K. (1994). *Clinical psychology since 1917: Science, practice, and organization*. New York: Plenum.
- Routh, D. K. (1996). Lightner Witmer and the first 100 years of clinical psychology. *American Psychologist*, 51, 244–247.
- Routh, D. K. (1997). A history of Division 12 (Clinical Psychology): Fourscore years. In D. A. Dewsbury (Ed.), *Unification through division: Histories of the Divisions of the American Psychological Association* (Vol. 2, pp. 55–82). Washington, DC: American Psychological Association.
- Shakow, D. (1969). *Clinical psychology as a science and as a profession: A forty-year odyssey*. Chicago: Aldine.
- Tischler, G. L. (1990). Utilization management of mental health services by private third parties. *American Journal of Psychiatry*, 147, 967–973.
- Witmer, L. (1996). Clinical psychology. *American Psychologist*, 51, 248–251. (Reprinted from *Psychological Clinic*, 1907, 1, 1–9)
- Woody, S. R., & Canter Kihlstrom, L. (1997). Outcomes, quality, and cost: Integrating psychotherapy and mental health services research. *Psychotherapy Research*, 7, 365–381.
- Zimet, C. N. (1989). The mental health care revolution: Will psychology survive? *American Psychologist*, 44, 703–708.

The Science of Clinical Psychology



Accomplishments and Future Directions

*Edited by Donald K. Routh
and Robert J. DeRubeis*

*American Psychological Association
Washington, DC*

Copyright © 1998 by the American Psychological Association. All rights reserved. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

Published by
American Psychological Association
750 First Street, NE
Washington, DC 20002

Copies may be ordered from
APA Order Department
P.O. Box 92984
Washington, DC 20090-2984

In the U.K., Europe, Africa, and the Middle East, copies may be ordered from
American Psychological Association
3 Henrietta Street
Covent Garden
London WC2E 8LU
England

Typeset in Goudy by EPS Group Inc., Easton, MD

Printer: Braun-Brumfield, Inc., Ann Arbor, MI
Jacket designer: Design Concepts, San Diego, CA
Technical/production editor: Valerie Montenegro

Library of Congress Cataloging-in-Publication Data

The science of clinical psychology : accomplishments and future directions / edited
by Donald K. Routh and Robert J. DeRubeis.—1st ed.
p. cm.

Includes bibliographical references and index.

ISBN 1-55798-520-0 (cb : acid-free paper)

1. Clinical psychology. 2. Clinical psychology—Forecasting. I. Routh,
Donald K. II. DeRubeis, Robert J.

[DNLM: 1. Mental Disorders. 2. Psychopathology. 3. Psychology,
Clinical. 4. Research. WM 140S416 1998]

RC467.S433 1998

616.89—dc21

DNLM/DLC

for Library of Congress

98-39998

CIP

British Library Cataloguing-in-Publication Data

A CIP record is available from the British Library.

Printed in the United States of America
First edition