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Clinical Psychology Training: Accreditation and Beyond

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Abstract

Beginning with efforts in the late 1940s to ensure that clinical psychologists were adequately trained to meet the mental health needs of the veterans of World War II, the accreditation of clinical psychologists has largely been the province of the Commission on Accreditation of the American Psychological Association. However, in 2008 the Psychological Clinical Science Accreditation System began accrediting doctoral programs that adhere to the clinical science training model. This review discusses the goals of accreditation and the history of the accreditation of graduate programs in clinical psychology, and provides an overview of the evaluation procedures used by these two systems. Accreditation is viewed against the backdrop of the slow rate of progress in reducing the burden of mental illness and the changes in clinical psychology training that might help improve this situation. The review concludes with a set of five recommendations for improving accreditation.

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INTRODUCTION

Clinical psychology is tasked with the enormous challenges of classifying and diagnosing mental illness, understanding its etiology, developing effective treatments, and, ultimately, finding ways to cure and prevent mental illness. Given these challenges, the field has understandably struggled to find the best way to train its students. There is a compelling need to train students who can produce new and better clinical science; work effectively in interdisciplinary teams; develop

ways of translating existing scientific knowledge into effective, usable treatments; disseminate knowledge; manage mental health programs; and provide evidence-based services to those in need. The magnitude of the challenge is matched by the magnitude of the need. Mental illness is increasingly seen as one of the major public health problems. It is the second leading cause of disability worldwide and has strong links to other major public health problems, including suicide and heart disease (Ferrari et al. 2013).

Clinical psychologists trained in doctoral programs pursue a broad range of careers. Some become exclusively scientists and others become exclusively practitioners, but many pursue careers that involve some combination of both. There are large variations among graduate programs in the amount and type of science training they provide, but, essentially, all students receive some exposure to science as well as hands-on training in the application of clinical psychology, which includes learning to diagnose and treat mental illness.

Being assigned to something as important to society as dealing with mental illness carries with it the responsibility to ensure that clinical psychology trainees are properly prepared. For training that merges science and practice, this preparation involves obtaining relevant scientific and clinical knowledge; learning methods for research, diagnosis, and treatment; and inculcating scientific and professional ethics. Although an incompetent teacher can surely have a negative impact on the lives of many students and an incompetent or dishonest researcher can undermine public confidence in science and retard progress in important fields of inquiry, special concern is reserved for incompetent and unethical practitioners, who might harm those who are most vulnerable, most in need of help, and least resilient to the negative effects of inept or inappropriate treatment.

Viewed through this lens, it is not surprising that professional training in clinical psychology comes in for special scrutiny. This scrutiny takes two forms: (a) the accreditation of programs that train clinical psychologists and (b) licensure by states of those who will engage in clinical practice. In this article, I focus primarily on accreditation, in large part because it is at the center of a number of current debates that will not only shape the future of clinical psychology training but also have important implications for the role that clinical psychologists have in improving the public's health. I have also recently written about the implications of accreditation for licensure (Levenson 2016), arguing that an unimpeded path to professional licensure for students trained in the clinical science model has enormous benefits to society and for the public's health.

WHAT IS ACCREDITATION AND WHY DO WE DO IT?

Accreditation in clinical psychology is a process of evaluating the kind and quality of training that students receive and the outcomes of that training. Accreditation is typically conducted by bodies associated with professional organizations, and the accrediting bodies are recognized by national accrediting organizations, such as the Council for Higher Education Accreditation (CHEA) and the US Department of Education. Currently, the accreditation of clinical psychology programs in the United States and its territories is conducted by the Commission on Accreditation associated with the American Psychological Association (herein referred to as APA accreditation) and in the United States and Canada by the Psychological Clinical Science Accreditation System (PCSAS) associated with the Academy of Psychological Clinical Science (herein referred to as PCSAS accreditation). Both accrediting bodies are recognized by CHEA; the APA's Commission on Accreditation is also recognized by the Department of Education.

Accreditation in clinical psychology can serve many goals. At best, accreditation serves the greater good by ensuring that programs train students who work to improve public health and act in ethical ways that protect vulnerable populations. At worst, it serves narrow guild interests

(e.g., limiting competition, endorsing educational experiences of questionable value). In my view, the overarching goals of the accreditation of clinical psychology graduate programs should be to ensure that programs produce psychologists who (a) have the knowledge and skills necessary to reduce the burden of mental illness and improve public health and (b) act in ethical and compassionate ways that help and do not harm vulnerable and diverse populations.

In their public documents, both the APA and PCSAS address the first of these goals in terms of ensuring the quality of training and education designed to produce graduates who can serve public health. The APA has an additional stated goal of serving the profession of psychology, whereas the PCSAS has an additional stated goal of enhancing scientific knowledge. The similarities and differences can be seen below.

APA: The accreditation process is intended to promote consistent quality and excellence in education and training in health service psychology. Education and training provide tangible benefits for prospective students; the local, national, and international publics that are consumers of psychological services; and the discipline of psychology itself. (APA 2015, p. 3)

PCSAS: PCSAS is designed to foster clinical scientists who will be able to improve public health by disseminating existing knowledge, delivering scientifically based clinical services, and expanding the body of scientific knowledge in clinical psychology. The ultimate goal is to provide the public with mental health services that are safe, that work, and that are cost effective. (Psychol. Clin. Sci. Accredited Syst. 2016b)

ACCREDITATION: A HISTORY

During the approximately 70-year period between the end of World War II and the present, the accreditation of doctoral training programs in clinical psychology emerged as a critically important gateway for education, funding, clinical practice, and employment. Moreover, it has been a powerful magnet for controversy, dissatisfaction, and seemingly unending revision. The roots of accreditation trace back to the period after World War II ended in 1945. At that time, a large number of veterans were being treated by the US Department of Veterans Affairs (VA) for a range of health problems. By some estimates, 60% of the veterans receiving care from the VA in the immediate postwar period had mental health problems (Benjamin 2005, Miller 1946). This led the VA to ask the APA for help in identifying university departments that could train doctoral-level psychologists to meet these needs (Zlotow et al. 2011).

In response to this request, the APA formed the Committee on Training in Clinical Psychology. The committee's 1947 report, "Recommended graduate training program in clinical psychology" (Comm. Train. Clin. Psychol. 1947), was unanimously approved at a 1949 conference on graduate education in clinical psychology held at the University of Colorado at Boulder (hence the term Boulder model, which is often used to refer to the recommended training model). This report established the foundation for the APA accreditation system that has powerfully shaped graduate training in clinical psychology in the United States ever since.

THE 1947 REPORT

The report (Comm. Train. Clin. Psychol. 1947) is a fascinating historical document, replete with the literary style and issues of the day. Although often cast in the villain's role in critiques of the accreditation system it spawned, the report also has a number of highly admirable qualities. In reading it anew while preparing this review, I was struck both by the number of good ideas and

insights that it contained (some adopted and others unfortunately ignored) and by the limitations and misconceptions that would create problems later.

Before considering the substance of this report, it is worth examining the committee itself and its charge.

Short Timeline, Ambitious Charge

At the meeting of the board of directors of the APA held in Ann Arbor during March 28–30, 1947, then APA President Carl Rogers (of client-centered therapy fame) was authorized to appoint a committee to prepare a report on training in clinical psychology. The committee report was completed and submitted to the APA at its annual convention held in Detroit during September 9–13, 1947. Thus, the time from inception to delivery of the document that has shaped the training of clinical psychologists for almost 70 years was less than 6 months. Moreover, the committee's charge was quite ambitious: (a) formulate a recommended program for training in clinical psychology, (b) formulate practicum training standards, (c) visit training programs and prepare detailed reports on each program, and (d) maintain liaisons with other committees concerned with these problems. Given the press of time, the committee addressed only the first item, formulating a recommended training program.

Gang of Six

The committee was chaired by David Shakow, a psychoanalytically oriented researcher who had done empirical work on cognitive deficits in schizophrenia. Other committee members were Ernest Hilgard (a hypnosis researcher and coauthor of a widely used introductory psychology text), E. Lowell Kelly (an expert in personnel selection who wrote on the selection of clinical psychologists; Kelly 1947), Bertha Luckey (a school psychologist who worked with the Cleveland school system), R. Nevitt Sanford (a researcher who studied prejudice and the authoritarian personality and who later founded the Wright Institute in Berkeley, California, an APA-accredited freestanding program that grants the Psy.D. degree), and Laurance F. Shaffer (an expert in pilot selection and health promotion). This appears to be a typical blue ribbon committee, with three of its members (Hilgard, Kelly, Shaffer) serving as presidents of the APA at some point during their careers.

A cursory review of the professional careers of the members suggests that the committee was strong in the area of individual differences and personnel selection, but weak in several areas critical to clinical psychology, such as psychopathology (except for Shakow), clinical assessment, treatment evaluation, education and pedagogy (although Sanford developed an interest in this later in his career), and the biological bases of behavior. Fortunately for the committee, Shakow had previously written about training clinical psychologists when he was chief psychologist at Worcester State Hospital, Massachusetts (Cautin 2008), arguing for (a) broad education in psychology, (b) practical experience working with patients, (c) an internship experience to gain additional clinical training, and (d) scientific training, including a research dissertation. These principles are clearly embodied in the report and, by all accounts, Shakow's views dominated the committee's deliberations (Baker & Benjamin 2000).

Given the narrow-band nature of the committee's membership, the crushing charge, the unforgiving timeline, and the lack of empirical evidence for deciding what kind of graduate training would actually be most effective, it is remarkable how durable their recommendations have been. However, it is also not surprising that 70 years after the report was issued there are still many ongoing debates about whether this is the best way to train clinical psychologists.

An Important Role for Science

The report strongly endorsed the value of science in the training of clinical psychologists. Reviewing documents of the day, Miller (1946) shows that the VA was understandably focused primarily on practical issues, especially the enormous human resource needs it faced in providing mental health services to veterans. The committee, however, saw research training as critically important, stating that training should emphasize “the research implications of the phenomena . . . so much so that the student is finally left with the set constantly to ask ‘how’ and ‘why’ and ‘what is the evidence’ about the problems with which he is faced” (Comm. Train. Clin. Psychol. 1947, p. 545). Thus, research training was neither viewed as optional nor added as an afterthought, but rather was a matter of the highest priority: “There is probably no more important single task placed on the teaching staff than this direction towards research” (Comm. Train. Clin. Psychol. 1947, p. 545).

In my view, the committee’s vision went astray by advocating a model in which research training proceeded in parallel with training in other areas (i.e., general psychology, the dynamics of human behavior, related disciplines, diagnostic methods, therapy) rather than advocating that science be fully integrated into all areas of training. This distinction proved to be extremely important in creating some of the dissatisfaction that the clinical science community has had with the scientist–practitioner model. For example, there is the two-hat problem (Levenson et al. 2010), which refers to clinical psychologists using one set of standards of evidence in the clinic (wearing the clinical hat) and another in the laboratory (wearing the scientist hat), and related concerns about clinical discourse and logic (Meehl 1973). Consistent with these issues, the report discusses an apparently widely held view of the day that “scientific and therapeutic attitudes mix poorly in the same person,” a position they were not ready to accept or reject (Comm. Train. Clin. Psychol. 1947, p. 540).

In summary, both the committee’s scientist–practitioner model and the clinical science model consider research to be important. However, the committee’s model did not advocate the position taken by modern clinical science (Baker et al. 2008; Levenson 2007; McFall 1991, 2006) that science must be integrated into all aspects of clinical psychology and that it has the deciding vote when adjudicating among theories, etiological models, diagnostic approaches, clinicians’ intuitions, clients’ viewpoints, and therapeutic methods.

The Ideal Trainee

Given the strong representation on the committee of experts in personality, individual differences, and personnel selection, it is not surprising that they placed a great deal of emphasis on “the clinical psychologist’s being the right kind of person” (Comm. Train. Clin. Psychol. 1947, p. 540). The committee recognized the lack of empirical evidence concerning which personality characteristics were associated with being most effective in clinical work. Nonetheless, they proceeded to list qualities they thought the ideal clinical psychology trainee should possess, including superior intellect, originality, insatiable curiosity, interest in others as individuals, self-insight, a sense of humor, tolerance, a lack of arrogance, an ability to establish warm relationships with others, methodical work habits, an acceptance of responsibility, tact, integrity, self-control, a sense of ethical values, being broadly educated, and having a deep interest in clinical psychology.

Finding such individuals, they recognized, could be difficult. Thus, they suggested identifying and selecting promising candidates early in life (e.g., in high school). Accordingly, a large section of the report is devoted to describing the kinds of life and work experiences such individuals might have and the undergraduate education that would be optimal. Some of these requirements (e.g., taking psychology courses) are hard to argue with. Others (e.g., reading knowledge of French and German; six semesters of “literary psychology”) seem less relevant to contemporary concerns.

Interestingly, one quality that does appear on the committee's wish list and that has been well supported by subsequent research is the ability to establish warm relationships with others. This quality is surely related to therapist empathy and to being able to form therapeutic alliances, both of which have been linked to better therapeutic outcomes (Horvath & Symonds 1991, Kazdin 2007, Lambert & Barley 2001, Rogers 1957). The committee's enthusiasm notwithstanding, the history of considering personality in selecting clinical graduate students has been spotty. At one time, most clinical programs engaged in some formal testing (e.g., requiring applicants to take the Miller Analogies Test or the Minnesota Multiphasic Personality Inventory, or both) and used test results to help select applicants. However, most clinical psychology programs now rely primarily on personal statements, letters of recommendation, and in-person interviews to evaluate applicants' personality and character. This is particularly ironic given the strong empirical support for the superiority of formal actuarial and statistical predictions over informal clinical predictions (e.g., Grove et al. 2000, Meehl 1954).

Encouraging Experimentation and Innovation

The committee recognized that designing a fixed, one-size-fits-all model of training would be "premature and ill-advised because of the great need for experimentation in ways of implementing a sound program" (Comm. Train. Clin. Psychol. 1947, p. 540). Thus, their emphasis was on the "goals and principles of what we consider a desirable program rather than attempting to lay out a detailed blueprint" (Comm. Train. Clin. Psychol. 1947, p. 540). Recognizing that different programs would have different resources and constraints, they noted that "we have left to the university the practical working out of the program according to local conditions" (Comm. Train. Clin. Psychol. 1947, p. 540). This quality of allowing programs flexibility in designing their programs is clearly present throughout the report. For example, in describing graduate programs in clinical psychology they note that "considerable experimentation with respect to the personality and background of students as well as the content and methods of courses will for a long time be essential if we are to develop the most adequate program" (Comm. Train. Clin. Psychol. 1947, p. 543).

It is impossible to ignore the rich ironies that swirl around these statements. The high level of flexibility and experimentation in training that was so strongly advocated in the committee's report is consistent with the PCSAS accreditation system (which allows institutions considerable leeway in how they design their programs and focuses primarily on whether they achieve the desired training outcomes). Critics of APA accreditation often rail against its perceived inflexibility, checklist mentality, one-size-fits-all structure, and stifling of innovation, all of which go very much against the tenor of the committee's report.

And, finally, in the interest of fairness, it must be said that advocates of APA accreditation typically reject these claims, stating that flexibility does exist. For example, the new Standards of Accreditation quotes the 1947 report, stating that

accreditation in psychology is intended to "achieve general agreement on the goals of training...encourage experimentation on methods of achieving those goals and...suggest ways of establishing high standards in a setting of flexibility and reasonable freedom." (APA 2015, p. 4)

Broad and General Training

In the 1947 committee report, the strong endorsement of broad and general training is found in statements such as "it is our purpose to see that the necessary broad training is provided that will make later specialization on a sound foundation possible" (Comm. Train. Clin. Psychol. 1947,

p. 540) and “preparation should be broad” and should include study of “general psychology” (Comm. Train. Clin. Psychol. 1947, p. 543). In the new Standards of Accreditation, the concept emerges at the outset, with statements that the accrediting body reviews “doctoral programs in psychology that provide broad and general training” (APA 2015, p. 3) and that education at the doctoral level is based on “broad and general preparation for practice” (APA 2015, p. 5).

The 1947 report’s recommended training included (a) taking part in a 4-year program of academic and clinical training plus an internship that provided intensive clinical experience; (b) studying general psychology, the psychodynamics of behavior, diagnostic methods, research methods, related disciplines, and therapy; (c) taking advanced courses built on the foundation of earlier introductory courses; (d) paying close attention to course content rather than relying on course titles; (e) integrating theory and practice; (f) having direct and indirect contact with clinical material throughout training; (g) ensuring contact with a range of clients including those who would receive a *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV; Am. Psychiatr. Assoc. 1994) diagnosis and those who would not; (h) fostering lifelong learning; (i) fostering feeling responsible for patients and clients; (j) having experience working with practitioners in other disciplines; (k) emphasizing research implications and research evidence; and (l) having sensitivity to social implications and developing social responsibility.

The similarities in the overall goals and training elements between the 1947 recommendations and the current APA model (APA 2006) are striking. These similarities are also found in specific details. For example, in the realm of general psychology, the 1947 report recommends courses in general psychology, physiological psychology, comparative psychology, the history of psychology, developmental psychology, and social psychology. These are essentially the same as the broad and general content areas in the current APA accreditation framework (APA 2006) that have fueled so much controversy and concern (Berenbaum & Shoham 2011, Zlotlow et al. 2011).

AND THEN THERE WERE TWO

APA Accreditation

From 1948 to 2008, APA accreditation was the only option for programs in the United States that provide doctoral training in clinical psychology. At the time of this writing, 385 doctoral programs in the United States and its territories have APA accreditation. Of these, 237 are clinical psychology programs (the APA also accredits doctoral programs in school and counseling psychology, and programs that combine school, counseling, and clinical foci). These clinical psychology programs include 172 that grant the Ph.D. degree and 65 that grant the Psy.D. degree. They include programs that are based in universities and colleges, as well as a sizeable number in freestanding professional schools. They represent an enormous breadth in terms of intellectual traditions, the level and kind of involvement with science, and typical career paths for graduates.

The APA also accredits internship programs (539 currently accredited) and postdoctoral residency programs (120 currently accredited).

The intellectual roots of APA accreditation are found in the Committee on Training in Clinical Psychology’s recommended graduate program (Comm. Train. Clin. Psychol. 1947) as approved at the Boulder conference in 1947. Both the current accreditation system and the revised system that is scheduled to become operational in January 2017 are described in a series of documents that are available on the APA’s website (<http://www.apa.org/ed/accreditation>; APA 2006, Comm. Accred. 2015).

APA accreditation is overseen by the 32-member Commission on Accreditation, which has representatives from training programs, practitioners, and the public. The actual mechanics of

accreditation are handled by the Office of Program Consultation and Accreditation, which has a director (who also serves as staff liaison to the Commission on Accreditation) and a 16-person professional staff.

PCSAS Accreditation

In 2008, the Academy of Psychological Clinical Science (an organization of scientifically oriented doctoral and internship training programs in the United States and Canada) started the PCSAS to provide an alternative accreditation system for university-based doctoral programs. At the time of this writing, 30 doctoral programs in the United States and Canada have received PCSAS accreditation. All PCSAS programs are based in research-oriented universities and grant the Ph.D. degree. At this time, all PCSAS-accredited programs are also accredited by the APA. However, the clinical science program at the University of California, Berkeley, has announced on its website that it is considering not seeking APA accreditation after its current accreditation cycle (Univ. Calif. Berkeley 2016).

PCSAS does not accredit internship programs or postdoctoral residency programs. The organizational roots of PCSAS accreditation trace back to the Summit Meeting on the Future of Accreditation held in Chicago in 1992 and the follow-up meetings that produced a plan for an alternative accreditation system. The summit led to the formation of the Academy of Psychological Clinical Science in 1995. The intellectual roots of the PCSAS can be found in the clinical science model (McFall 1991) and a number of subsequent articles arguing for using this model as the basis for training for clinical research and professional practice (Baker et al. 2008, Bootzin 2007, Levenson 2007, McFall 2006). The PCSAS accreditation system is described on the PCSAS website (<http://www.pcsas.org>; Psychol. Clin. Sci. Accredit. Syst. 2016a).

The PCSAS was granted formal recognition as an accrediting body by CHEA in 2012. In 2014, graduates from PCSAS-accredited programs were granted parity with graduates from APA-accredited programs for eligibility for licensure in Delaware and Illinois. In July 2016, the VA system amended its regulations to afford full parity (with APA and Canadian Psychological Association accreditation) for graduates of PCSAS-accredited programs in eligibility for VA internships and staff positions.

PCSAS accreditation is overseen by a nine-person board of directors (appointed by the Academy of Psychological Clinical Science), members of which represent training programs, trainees, psychological science, and the public. PCSAS staff include an executive director and an administrative assistant. Accreditation is handled by a nine-person Review Committee, made up of faculty from clinical science programs, the members of which are appointed by the PCSAS board of directors.

There has been some confusion concerning the relationship between PCSAS accreditation and the Association for Psychological Science (APS). Unlike the relationship between the Commission on Accreditation and the APA, there is no formal connection between the PCSAS and the APS (thus, the term APS accreditation is a misnomer). However, the APS has played and continues to play a major part in supporting the clinical science movement, the Academy of Psychological Clinical Science, and the PCSAS.

UNDER THE HOOD: THE ACCREDITATION PROCESS

Both the APA and PCSAS accreditation systems require programs to undergo periodic major reviews (e.g., up to every 7 years for the APA and every 10 years for the PCSAS), as well as submit annual reports. The overall structure of the major reviews is similar in that both require programs to conduct a self-study followed by a site visit, but the specifics differ considerably.

APA Accreditation Process

Under the current system, institutions prepare a self-study that describes their program in terms of eight domains: Domain A—Eligibility; Domain B—Program Philosophy, Objectives, and Curriculum Plan; Domain C—Program Resources; Domain D—Cultural and Individual Differences and Diversity; Domain E—Student–Faculty Relations; Domain F—Program Self-Assessment and Quality Enhancement; Domain G—Public Disclosure; and Domain H—Relationship with Accrediting Body. The self-study also requires the completion of 19 detailed tables that provide supporting information (e.g., student demographics, internship placements, the faculty’s professional activities).

Under the new system scheduled to take effect in 2017, the self-study is organized in terms of four standards: Standard I—Institutional and Program Context; Standard II—Aims, Competencies, Curriculum, and Outcomes; Standard III—Students; and Standard IV—Faculty. There are 17 tables that are completed to provide supporting information.

The documentation for APA accreditation procedures and policies is extensive, spanning multiple documents (presently available for both the current system and the new system scheduled to begin in 2017). This documentation can be found on the APA’s website (<https://www.apa.org/ed/accreditation>; APA 2006, 2015).

An important part of the self-study (in both the current and new systems) is the description of specific competencies that all students are expected to attain, the ways these competencies are evaluated, the minimum thresholds for achieving these competencies, and the ways the program ensures that these achievement levels are met by all students.

Assuming that the self-study is judged adequate, programs undergo a two-day visit by a three-person team consisting of a chairperson and a visitor, both of whom have backgrounds consistent with the program being visited, and a second visitor with experience in another area of psychology (who is sometimes referred to as the generalist). Programs choose site visitors from lists provided by the APA. The site visit team’s charge is to evaluate the program’s consistency with APA standards. They can offer evaluations of the program’s strengths and weaknesses but are not required to. They are explicitly instructed not to make a recommendation regarding accreditation. The site visit report is shared with the program that was visited, and the program has an opportunity to correct errors of fact. Often, APA site visit teams refer to themselves as fact finders, reporting back to the Commission on Accreditation, which makes all decisions regarding accreditation. There are a number of different accreditation outcomes, but the major ones are denied; accredited, on probation (given a set amount of time to address issues); and accredited (for 3, 5, or 7 years).

PCSAS Accreditation Process

After establishing eligibility for accreditation via a letter of intent, programs deemed eligible conduct a self-study. It is recommended that the body of the self-study be organized in terms of five PCSAS accreditation criteria: (a) conceptual foundations; (b) design, operation, and resources; (c) quality of the science; (d) quality improvement; and (e) outcomes. The information considered under each of these five criteria is presented in considerable detail on the PCSAS website (<http://www.pcsas.org/review.php>; Psychol. Clin. Sci. Accredit. Syst. 2016b). There are two tables that require completion, one focusing on the program’s faculty and their advisees, and the other on the credentials of admitted students (e.g., GRE, GPA). Programs can organize additional tables if they wish. All data are required to cover a period of at least 10 years.

A major focus of PCSAS accreditation is on outcomes, and here the required information is more narrowly specified. For all graduates during at least the past 10 years, a detailed career narrative must be provided that addresses the extent to which they have “pursued careers, and

engaged in professional activities that have contributed meaningfully to the advancement and application of scientific knowledge regarding the origin, assessment, diagnosis, prevention, and amelioration of mental and behavioral health problems” (Psychol. Clin. Sci. Accred. Syst. 2016b). On a voluntary basis, programs can rate each graduate in terms of whether they represent a clinical scientist success.

Assuming that the self-study is deemed adequate, programs undergo a 2-day visit by a 2-person team. The team consists of a chairperson and a visitor, both of whom have clinical science backgrounds. Site visitors are chosen by, and are normally members of, the PCSAS Review Committee (programs are given the opportunity to raise conflicts of interest issues with the assigned reviewers). The team’s charge is to evaluate the program’s consistency with PCSAS standards, with particular attention being given to the training outcomes of graduates. Site visitors are encouraged to evaluate a program’s strengths and weaknesses and to make a recommendation regarding accreditation. The site visit report (minus the recommendation) is shared with the programs, and programs have an opportunity to correct errors of fact. The PCSAS Review Committee considers all materials from the self-study and site visit and makes the final determination about accreditation (with members of the site visit team who are on the Review Committee voting). Programs can be denied accreditation; accreditation can be deferred for additional information; or programs can be accredited for 10 years.

Major Differences Between the Accreditation Systems

Although similar in their use of self-studies and site visits as mechanisms for evaluating programs and similar in the broad areas they evaluate (e.g., quality of faculty, students, and facilities; quality of classroom, research, and practical training; adequacy of preparation for providing mental health services), the APA and PCSAS accreditation processes differ in a number of important ways that reflect their different training philosophies. In my view, these differences are most pronounced in five areas.

- APA accreditation is more concerned than PCSAS accreditation is with evaluating specific competencies and particular areas of knowledge (e.g., particular course topics); PCSAS accreditation affords programs greater flexibility in designing curricula that reflect their goals and resources.
- PCSAS accreditation is more concerned than APA accreditation is with evaluating the extent to which the program’s training model is reflected in the career outcomes of graduates; APA accreditation does consider distal outcomes (e.g., type of jobs, professional licensing), but it does not require detailed narratives of the kind of work each graduate is doing and the way that work incorporates clinical science.
- PCSAS accreditation is limited to Ph.D. programs in research-oriented universities that pursue the clinical science training model; APA accreditation encompasses both Ph.D. and Psy.D. programs in a range of settings (university and freestanding professional schools) that pursue a number of different training models.
- The format of the APA’s self-study is much more structured than that of the PCSAS, in terms of both the narrative sections and required tables; the PCSAS self-study is more structured in terms of obtaining documentation of graduates’ career outcomes.
- The APA site visit team serves only a fact-finding role and has no vote in the accreditation decision; the PCSAS site visit team acts as fact finders, makes a recommendation, and has a vote in the final accreditation decision.

HOW ARE WE DOING?

This question, How are we doing?, is an important starting point for any consideration of the effectiveness of accreditation. After all, the vast majority of doctoral-level clinical psychologists currently engaged in clinical science and clinical practice in the United States received their training in clinical training programs that were accredited by the APA (which began accrediting doctoral programs in 1949). In addition, starting in 2008, a number of university-based programs committed to the clinical science model have been accredited by the PCSAS. Thus, there is a long period of graduate training being shaped by, and evaluated in terms of, accreditation standards. For this reason, it seems entirely appropriate to examine the larger state of affairs.

At the broadest level, if clinical science were producing breakthrough discoveries, if evidence-based treatments were being disseminated effectively and used by most practitioners, if the mentally ill were receiving treatments in a timely fashion, and if treatment and prevention efforts were reducing the burden of mental illness, then we could conclude that the current system of training and accreditation is working well. In that case, why fix something that isn't broken? However, if the opposite is true, then we should entertain the possibility that the current system is not working and that, rather than reifying past practices, we should embrace and evaluate new approaches that might lead to better results. Thus, we again ask, How are we doing?

ARE WE REDUCING THE BURDEN OF MENTAL ILLNESS?

The drama surrounding accreditation (e.g., rival accreditation systems, changing standards) is playing out against a backdrop of growing concern about the huge societal burden of mental illness and growing impatience with the slow (some would say glacial) pace of progress in reducing that burden. Estimates of the economic cost of mental illness in the United States are staggering. For example, the US Centers for Disease Control and Prevention estimated that the annual costs of mental illness (including lost earnings, disability benefits, and health-care expenditures) in 2002 were \$300 billion (Reeves et al. 2011). Mental illness directly affects a sizeable proportion of Americans; 50% of US adults will develop at least one mental illness during their lifetime (Reeves et al. 2011). Moreover, mental illness has enormous, indirect negative effects on caregivers, family members, and others whose lives intersect with those who are mentally ill. Placed in the context of the burden associated with physical disease, mental illness accounts for more disability in developed countries than any other group of illnesses, including cancer and heart disease (Reeves et al. 2011).

Reducing the burden of mental illness is a central concern of the National Institutes of Health and, in particular, the National Institute of Mental Health (NIMH). There is a growing sense of urgency at these agencies, in Congress, and among the general public to find cures for those who already are afflicted and to find ways to prevent the occurrence of new cases. This urgency has been fueled most recently both by the daunting statistics and an increasing awareness of the part that untreated or poorly treated mental illness plays in broader social problems, such as homelessness and crime.

Progress in mental health is often compared with progress in physical health, a comparison that is quite invidious for the mental health community. In recent years, there have been a number of dramatic developments in the physical health domain. For example, deaths from invasive breast cancer in the United States have declined steadily during the period from 1992 to 2013 (**Figure 1a**). Similarly, childhood cancer mortality decreased by more than 50% in the period from 1975 to 2010 (Howlader et al. 2016). Deaths from AIDS in the United States peaked at over 10,000 in 1995 and had dropped by approximately 60% by 1997 (Cent. Dis. Control Prev. 2001). These dramatic reductions trace back to scientific discoveries, often quite basic in nature, that have been

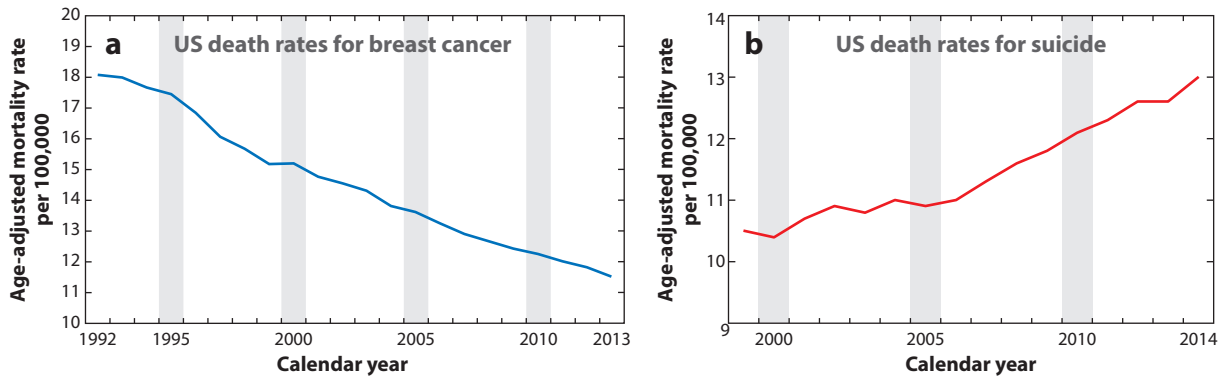


Figure 1

(a) Death rates from breast cancer in the United States from 1992 to 2013. (b) Death rates from suicide in the United States from 1999 to 2014. Figure created based on data published by (a) Howlader et al. (2016); (b) Curtin et al. (2016).

translated into better treatments and earlier detection, as well as effective education and prevention efforts.

The picture for mental health is far less encouraging. Although there are a number of excellent evidence-based treatments available that can help reduce symptoms and improve functioning for patients who are afflicted with a number of different kinds of mental illness (e.g., anxiety and depression), other forms of mental illness remain quite resistant to effective treatment. Moreover, there is little evidence that the overall rates of mental illness and related conditions are declining. For example, death rates from suicide in the United States from 1999 to 2014 did not show the pattern of decline as depicted for breast cancer in **Figure 1a** but rather increased (**Figure 1b**).

Evaluating changes in the prevalence of mental illness is complicated by the paucity of studies that measure mental illness in the same way at multiple time points in nationally representative samples. One exception to this is the National Comorbidity Survey (Kessler et al. 2005), which measured cases that met DSM-IV criteria for disorders in the same way in representative samples at time points separated by approximately 10 years. This study provided no evidence for any reduction in prevalence rates over time; instead, rates actually increased (**Figure 2**).

IMPLICATIONS FOR CURRENT MODELS OF TRAINING AND ACCREDITATION

These data present a sobering picture of the challenges facing clinical psychology. By no stretch of the imagination do they support concluding that all's well and that we should keep on doing what we are doing. If anything, they sound a clarion call for the need for more innovation and experimentation, and for finding new ways to train the clinical psychologists (practitioners, scientists, and the various hybrids) who will be able to make significant inroads in winning the battle to reduce the burden of mental illness. No matter how well-intentioned and responsibly administered, accreditation systems that stifle innovation and affirm outdated and ineffective models of training are part of the problem and not part of the solution. In particular, accreditation requirements that prevent training in emerging areas of knowledge that are highly relevant to modern clinical psychology (e.g., genetics, neuroscience, pharmacology, dissemination, program development, and management) by cluttering curricula and numbing student enthusiasm with stultifying levels of required coursework are doing a disservice to the field of clinical psychology, to the students we are training, and to the public's welfare.

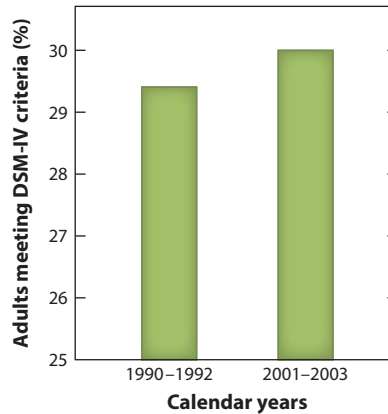


Figure 2

Percentage of adults (age 18–24 years) meeting *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV), criteria for a disorder during the previous 12 months, 1990–1992 and 2001–2003. Figure created based on data published by Kessler et al. (2005).

CHANGES IN CLINICAL PSYCHOLOGY TRAINING

The history of doctoral training in clinical psychology, from its dramatic expansion following World War II to the present, is replete with perceived crossroads and crises, some that turned out to be mainly apparent, others excruciatingly real. Over this period, profound changes have occurred in many domains.

Funding

The NIMH and other federal agencies have gone from being deeply invested in doctoral training in clinical psychology, with most major programs having training grants that provided fellowship support for most of their students, to divesting almost completely from generic clinical psychology training. Whereas clinical students at one time could expect reliable fellowship support from the NIMH, VA, and US Public Health Service throughout their graduate training, present day students cobble together partial support (often at the last minute) from a patchwork of sources. Many students, especially those in freestanding professional schools, take on staggering debt from loans to fill the shortfall and then struggle for decades to retire these debts.

Service Delivery

There have been dramatic changes in the primacy afforded to doctoral-level clinical psychologists in service delivery. Early on, the doctorate was seen as essential for providing the highest quality mental health services (Comm. Train. Clin. Psychol. 1947). Decades later, treatment outcome studies and crushing financial realities have made doctoral-level providers more of a luxury, with master’s-level and specialist-degree service providers now in clear ascendancy and often preferred by third-party payers who see them as a way to control costs without sacrificing treatment quality.

Science and Practice

There have been profound changes in the ever-rocky marriage between science and practice within clinical psychology. In the late 1940s, the Boulder model reigned supreme with its foundational

belief that clinical psychologists needed to have training and experience in both research and practice. In the 1970s, the Vail conference proposed an alternative scholar–practitioner model that shifted the balance more toward practice than research and, within research training, emphasized applying rather than producing science. Whereas the scientist–practitioner model had largely fit graduate programs located in university settings that granted the Ph.D., the scholar–practitioner model was more frequently adopted by freestanding professional schools (and a handful of university programs; Peterson 1968) that granted the Psy.D.

The 1990s brought disputes over training and training models to a head. In April 1992, an accreditation summit was held in Chicago that brought together a number of organizations involved in university-based clinical psychology training. The summit was called to address concerns about (a) the nature of the current APA accreditation system (e.g., costs, constraints, influence of requirements on graduate curricula and staffing), (b) the drop in the number of clinical researchers being trained, and (c) the need for diversity in models of clinical practice. The summit led to the creation of a steering committee consisting of representatives from the APS, the Council of Graduate Departments of Psychology, the Council of University Directors of Clinical Psychology, and the Council of Counseling Psychology Training Programs. The steering committee held a series of meetings that led to the development of a plan for an alternative accreditation system that would be governed by the participating departments rather than by the sponsoring organizations. Because of ongoing efforts to revise the APA accreditation system (including broadening the membership of the Commission on Accreditation), it was decided to hold the new accreditation system (referred to as the lifeboat) in abeyance for 2 years during which the revisions in APA accreditation could be evaluated.

As it turned out, the lifeboat that was created by the accreditation summit was never launched. Although the APA was not a participant in the summit, the parallel efforts that were ongoing to reform APA accreditation and broaden the membership of the Commission on Accreditation were both somewhat successful. This led to a period of greater flexibility in the training models that were considered for accreditation by the APA and in the ways they were evaluated. Programs were now allowed to identify their training model and were evaluated in terms of how well they achieved their model’s goals and objectives. Although this new flexibility benefited clinical science programs by enabling them to concentrate more on science-based training, it also allowed programs to propose models that had much less emphasis on science than had previously been deemed acceptable. In my view, this was a major factor in opening the floodgates for the APA’s accreditation of a large number of doctoral programs (mostly Psy.D.) that were located in freestanding professional schools and that trained large numbers of students. Although many of these programs provided excellent applied clinical training and high-quality coursework, their students did not typically obtain the kind of deep exposure to training in research and science-based practice that was imagined in the Boulder and clinical science training models.

Over time, the increased flexibility in training models began to recede and programs of all varieties began expressing concerns that they were being reviewed against a more limited set of models with an attendant limited flexibility in curriculum and training practices. This move away from the diversity of training models can be seen clearly in the new APA Standards of Accreditation (APA 2015). These standards [which are scheduled to replace the guidelines and principles (APA 2006) starting in January 2017] now adopt a single overall rubric for training in what is called health service psychology (clinical psychology is listed as one of several practice areas). A search of the published standards reveals that, essentially, all mention of training models has been excised. Although flexibility is discussed, terms such as clinical science or scientist–practitioner or Boulder model are nowhere to be found.

NEW PARADIGMS FOR CLINICAL SCIENCE: MOVING AWAY FROM THE DSM

In the mental health realm, diagnosis serves as the primary gateway for understanding the etiology and course of illness and for developing effective methods of treatment and prevention. Starting in 1952 and continuing to the present, the primary tool for diagnosis has been the *Diagnostic and Statistical Manual of Mental Disorders* (DSM; Am. Psychiatr. Assoc. 1952, 2013). Despite its longevity and ubiquity in training and treatment, the DSM is rife with oft-documented problems that undermine its utility, including (a) high levels of comorbidity across disorders, (b) lack of specificity in etiology, (c) lack of specificity in pharmacological and behavioral treatments, (d) particular symptoms (e.g., fear) that appear in multiple disorders, and (e) broad syndromes (e.g., schizophrenia, major depression) that have multiple variants that would be better characterized as different disorders (Cuthbert & Insel 2010b, Levenson 2014).

Successive revisions of the DSM have increased the reliability of diagnosis, but these improvements have not been accompanied by declines in the prevalence or burden of mental illness or in plausibly related scientific or treatment breakthroughs. Thus, attention has increasingly turned from improving the reliability of DSM diagnosis to addressing concerns about its validity and utility as a basis for clinical research and practice.

Normally, large federal agencies are not the sources of dramatic innovations and revolutionary change, but in the realm of mental health, the NIMH (particularly under the leadership of former director Thomas Insel and Bruce Cuthbert) has taken a position of principled leadership in searching for alternative approaches to the diagnosis of mental illness. The alternative that resulted is the Research Domain Criteria (RDoC; Cuthbert & Insel 2010a, Insel et al. 2010). RDoC takes a very different approach than the DSM. Eschewing clinical syndromes, such as bipolar disorder and borderline personality disorder, it instead focuses on specific behaviors, neural circuits, biomarkers, and dimensions of functioning.

In a recent article on training in clinical psychology (Levenson 2014), I characterized the RDoC framework and discussed its profound implications for clinical science training. Paraphrasing from that article (Levenson 2014, pp. 39–40), RDoC focuses primarily on behavior and neurobiology. It asks what the range of behaviors is that the brain has evolved to carry out and which neural systems are responsible for implementing these behaviors (Cuthbert & Insel 2013). For a behavior to be included in RDoC, there must be a plausibly associated brain circuit. Because RDoC is constrained by the state of current neurobiological knowledge, the behavioral units are called constructs (leaving the door open for additional validation and revision on the basis of future knowledge). For each construct, RDoC specifies the range of variation, from normal to abnormal. Thus, constructs in RDoC are neither inherently good nor bad, but rather represent dimensions that encompass a range of functioning. Moreover, these dimensions are not necessarily unipolar. For many behaviors, abnormality is associated with both extremes (e.g., having too much or having too little fear are both problematic).

In the October 2012 iteration of RDoC (Cuthbert & Insel 2013), five domains were elaborated along with their associated behavioral constructs: (a) negative valence systems (acute threat, potential threat, sustained threat, loss, frustrative nonreward), (b) positive valence systems (approach motivation, initial responsiveness to reward, sustained responsiveness to reward, reward learning, habit), (c) cognitive systems (attention, perception, working memory, declarative memory, language behavior, cognitive control), (d) systems for social processes (affiliation and attachment, social communication, perception and understanding of self, perception and understanding of others), and (e) arousal and modulatory systems (arousal, biological rhythms, sleep–wake).

RDoC provides a framework for examining constructs at multiple levels of analysis, including genes, molecules, cells, physiology, behavior, and self-reports. It also specifies the laboratory paradigms that are used to assess these constructs rather than relying on the more traditional sources of clinical information (i.e., clinicians' and caregivers' observations and patients' self-reports).

The emergence of RDoC and related developments in mental health science and treatment have profound implications for the future of clinical training and, thus, for accreditation. In one possible future scenario (Levenson 2014), clinical psychologists will function in multidisciplinary teams (with psychiatrists, neurologists, neuroscientists, pharmacologists, social workers, and affective scientists) that work together to diagnose mental illness; determine comorbid physical health problems; and plan, deliver, and evaluate treatments. In this scenario, mental illness will be diagnosed in terms of the level of dysfunction in multiple constructs. Thus, clinical psychologists will need expertise in the assays necessary to assess small units of behavioral functioning, most of which will be derived from basic research in nonclinical areas, such as cognitive psychology, affective science, developmental psychology, and personality. In addition, clinical psychologists will need to be comfortable working with information derived from other levels of analysis (e.g., genes, molecules, circuits) that will be assessed and used in formulating diagnoses and treatments. If even part of this imagined scenario comes to pass, it will have profound implications for the way clinical psychologists need to be trained and for the accreditation of training programs.

Compared with the broad and general coursework and practical experiences that have formed the backbone of clinical psychology training since World War II, in this new era coursework will need to be different in both kind (e.g., pharmacology, neuroscience, genetics, neurology) and focus (narrowly focused and more in-depth rather than broad and general). In addition, practicum experiences will need to include working with different kinds of professionals, making diagnoses based on different criteria and involving different kinds of tests, and being familiar with new kinds of biological and psychosocial treatments.

Whether RDoC continues to gain traction and opens the door to a new era of progress in reducing the burden of mental illness remains to be seen, but there is an emerging zeitgeist that things need to change. Thus, if not RDoC, it will be probably be something else, but definitely not the status quo. Against this backdrop, training programs and accreditation systems will face an enormous challenge. They must embrace change rather than resist it, encourage flexibility and experimentation rather than reassert existing traditions, and foster higher aspirations in science and practice rather than be comfortable with the status quo. If this happens, clinical psychology will be poised to play a major part in future mental health research, service delivery, and administration. If not, it runs the risk of becoming increasingly outdated, marginalized, and left behind.

WHAT SHOULD BE DONE: FIVE RECOMMENDATIONS

In this review, I have presented an overview of the accreditation landscape, its history, and the challenges facing clinical psychology training and accreditation. In this closing section, I offer five suggestions to help us meet these challenges.

Recommendation 1: Keep Our Eyes on the Real Prize—Reducing the Burden of Mental Illness

First and foremost, we must keep in mind that the ultimate goal of clinical psychology training and accreditation is not to assure that programs maintain fidelity to a set of training principles

and a preordained curriculum, but rather to produce scientists and practitioners who will reduce the burden of mental illness and conduct themselves in ethical ways. Accreditation systems need to have the flexibility to allow programs to pursue these outcomes in ways that reflect their local strengths and resources, and need to work with programs to find meaningful ways of determining whether these outcomes are being realized. The extremely slow rate of progress in reducing the burden of mental illness should foster a spirit of humility and flexibility, rather than one of arrogance and rigidity, in designing and accrediting training programs.

Recommendation 2: Support Multiple Accreditation Systems

There are almost 250 doctoral programs in the United States providing clinical psychology training that are currently accredited by the APA. Among these programs there is a great deal of variability in terms of where they stand on the science–practice dimension. Moreover, within programs that have a strong science focus, there is significant variability in the relative emphasis placed on producing and applying science. With all of this variability, it seems reasonable to have a second accreditation system such as the PCSAS that is devoted to a subgroup of these programs (currently 30) that are based in universities, grant a Ph.D., and train graduates both to produce new science and to deliver evidence-based clinical services.

In my view, having two strong accreditation systems is beneficial, allowing both systems to focus their efforts on different parts of the clinical psychology training spectrum and allowing clinical psychology training programs to choose the accreditation system that best suits their needs and aspirations. Moreover, it could be extremely beneficial for the field if the two accreditation systems found ways to work together and support each other. In facing the daunting challenges associated with reducing the burden of mental illness, having two somewhat different approaches to accreditation and training might well speed the pace of innovation and progress, which would benefit public health and reflect well on the APA, PCSAS, and all of psychology.

Lest this notion of cooperation and coexistence seem overly Pollyannaish, it is worth noting that multiple accreditation bodies exist in other health-related fields. For example, in nursing accreditation is provided by two national organizations: the Accreditation Commission for Education in Nursing and the Commission on Collegiate Nursing Education.

Recommendation 3: Introduce More Evidence into Training and Accreditation

Ironically, despite the centrality of science in clinical psychology, most of the elements of clinical psychology training, in terms of preparing students for both practice and science, are based on a patchwork of accumulated wisdom, historical practices, observation of past successes and failures, and feedback from past trainees. It is particularly seductive for training programs, clinical supervisors, and research mentors to enumerate the students they have worked with who have gone on to do great things in practice, administration, leadership, education, and science; to hear glowing reports from past trainees as to the important part that their training played; and to conclude that we must be doing something (probably a lot of things) right. However, we all know that good intentions, anecdotal outcomes, and personal endorsements are a weak basis for making important decisions (e.g., how to train the next generation of clinical psychologists).

In designing and refining training programs and accreditation systems, it would be enormously helpful to have a richer evidentiary basis. For example, it would be extremely helpful to know whether particular elements of clinical psychology training that are embodied in accreditation criteria (e.g., broad and general coursework, research mentorships) do in fact produce the desired outcomes (e.g., graduates who are effective in reducing impairment and distress in their clients,

graduates who utilize existing science and produce new science relevant to reducing the burden of mental illness). Paralleling the current emphasis on identifying targets for and engaging in treatment research (Insel 2015), evaluation studies could examine purported mediators of desired training outcomes. Thus, for example, a study could determine whether the relationship between a particular training element (e.g., broad and general coursework, video feedback during clinical supervision) and a particular desired trainee outcome (e.g., reduction in distress and symptoms in clients) is mediated by a putative mechanism (e.g., creating a strong therapeutic alliance).

In these kinds of studies, controlling for pretraining (or early training) levels of skills or abilities would be important. This would help address lingering concerns as to the relative importance of preexisting abilities (in practice and science) versus training-associated gains. With many studies questioning the necessity of professional training (e.g., the similarity of clinical outcomes for professional and nonprofessional therapists; Berman & Norton 1985, Christensen & Jacobson 1994, Durlak 1979, Smith & Glass 1977), the question of whether good clinical psychologists are born or made remains worryingly unanswered.

The move toward evidence-based practice in clinical psychology (Chambless & Ollendick 2001, McHugh & Barlow 2010) has dramatically transformed the delivery of mental health services. The time seems right for a similar movement toward adopting evidence-based training and accreditation.

Recommendation 4: Promote Better Clinical Science and Clinical Practice and Higher Ethical Standards

Faced with the huge societal burden of mental illness, clinical psychology could decide to focus all of its efforts on disseminating existing scientific knowledge, getting practitioners to adopt existing evidence-based treatments, and reducing the staggering delays in applying appropriate existing treatments to those with mental illness (Wang et al. 2005). However, this focus, if exclusive, would be unfortunate. It is important to keep in mind the pressing need for better and deeper scientific knowledge about the causes, course, and consequences of mental illness; new, effective treatments that target specific problems (in the RDoC tradition) as well as existing syndromes (in the DSM tradition); and clinical psychologists who will conduct science and practice with the highest ethical standards. Accreditation systems have the opportunity to raise the aspirational bar for both science and practice, encouraging programs not to settle for good enough, but rather to strive for something much better.

This aspirational role seems particularly important given recent disturbing revelations about unethical activities by psychologists involved in the use of torture in enhanced interrogations (Hoffman et al. 2015) and ongoing controversies about replicability and integrity in science (Open Sci. Collab. 2015). This is clearly a time when good enough is simply not good enough.

Recommendation 5: Improve the Emotional Climate and Increase Civility Surrounding Training and Accreditation

Consider the following statements, all part of the current debate around accreditation.

“PCSAS accreditation isn’t concerned with clinical practice.”

“APA accreditation isn’t concerned with clinical science.”

“Accreditation staff are soulless bean counters with check-list mentalities.”

“Training program faculty are spoiled brats and need to be treated like disobedient children.”

Although it is not difficult to understand where such statements come from, I believe that they are all false. The PCSAS and APA accreditation systems are different in approach and have

different emphases, but both are clearly concerned with both science and practice. I have had the privilege of working with staff in both of the major accreditation systems over the years and they are typically dedicated, bright, and caring people, often caught between a rock and a hard place in dealing with the complexities of accreditation. And although some faculty are notorious for behaving badly, the vast majority are committed to training students in the best ways possible (and highly opinionated about which ways are, in fact, best).

The current climate around accreditation needs to become more civil and less accusatory. Clinical psychologists of all persuasions (scientists, educators, practitioners, and all the various combinations) are in the same boat when it comes to our shared commitment to reducing the burden of mental illness. Given the slow rate of progress in this effort, humility should replace elitism and arrogance, and we should try to find ways to reach across existing schisms to find common ground to work together more effectively.

DISCLOSURE STATEMENT

The author is currently the President of the Board of Directors of the PCSAS.

LITERATURE CITED

- Am. Psychiatr. Assoc. 1952. *Diagnostic and Statistical Manual of Mental Disorders*. Washington, DC: Am. Psychiatr. Publ. 1st ed.
- Am. Psychiatr. Assoc. 1994. *Diagnostic and Statistical Manual of Mental Disorders*. Washington, DC: Am. Psychiatr. Publ. 4th ed.
- Am. Psychiatr. Assoc. 2013. *Diagnostic and Statistical Manual of Mental Disorders*. Arlington, VA: Am. Psychiatr. Publ. 5th ed.
- APA (Am. Psychol. Assoc.). 2006. *Guidelines and Principles for Accreditation of Programs in Professional Psychology*. Washington, DC: APA
- APA (Am. Psychol. Assoc.). 2015. *Standards of Accreditation for Health Service Psychology*. Washington, DC: APA
- Baker DB, Benjamin LT Jr. 2000. The affirmation of the scientist–practitioner: a look back at Boulder. *Am. Psychol.* 55:241–47
- Baker TB, McFall RM, Shoham V. 2008. Current status and future prospects of clinical psychology: toward a scientifically principled approach to mental and behavioral health care. *Psychol. Sci. Public Interest* 9:67–103
- Benjamin LT Jr. 2005. A history of clinical psychology as a profession in America (and a glimpse at its future). *Annu. Rev. Clin. Psychol.* 1:1–30
- Berenbaum H, Shoham V. 2011. Broad and cutting-edge training in applied psychology: a clinical science perspective. *Train. Educ. Prof. Psychol.* 5:22–29
- Berman JS, Norton NC. 1985. Does professional training make a therapist more effective? *Psychol. Bull.* 98:401–7
- Bootzin RR. 2007. Psychological clinical science: why and how we got to where we are. In *Psychological Clinical Science: Papers in Honor of Richard M. McFall*, ed. TA Treat, RR Bootzin, TB Baker, pp. 3–28. New York: Psychology Press
- Cautin RL. 2008. David Shakow and schizophrenia research at Worcester State Hospital: the roots of the scientist–practitioner model. *J. Hist. Behav. Sci.* 44:219–37
- Cent. Dis. Control Prev. 2001. *HIV and AIDS—United States, 1981–2000*. Atlanta, GA: Cent. Dis. Control Prev.
- Chambless DL, Ollendick TH. 2001. Empirically supported psychological interventions: controversies and evidence. *Annu. Rev. Psychol.* 52:685–716
- Christensen A, Jacobson NS. 1994. Who (or what) can do psychotherapy: the status and challenge of nonprofessional therapies. *Psychol. Sci.* 5:8–14

- Comm. Accred. 2015. Section C: IRs related to the Standards of Accreditation. In *Implementing Regulations*, pp. 1–141. Washington, DC: Am. Psychol. Assoc.
- Comm. Train. Clin. Psychol. 1947. Recommended graduate training program in clinical psychology. *Am. Psychol.* 2:539–58
- Curtin S, Warner M, Hedegaard H. 2016. *Increase in suicide in the United States 1999–2014*. NCHS data brief, no. 241. Hyattsville, MD: Natl. Cent. Health Stat.
- Cuthbert BN, Insel TR. 2010a. The data of diagnosis: new approaches to psychiatric classification. *Psychiatry* 73:311–14
- Cuthbert BN, Insel TR. 2010b. Toward new approaches to psychotic disorders: the NIMH Research Domain Criteria project. *Schizophr. Bull.* 36:1061–62
- Cuthbert BN, Insel TR. 2013. Toward the future of psychiatric diagnosis: the seven pillars of RDoC. *Biomed Cent. Med.* 11:126
- Durlak JA. 1979. Comparative effectiveness of paraprofessional and professional helpers. *Psychol. Bull.* 86:80–92
- Ferrari AJ, Charlson FJ, Norman RE, Patten SB, Freedman G, et al. 2013. Burden of depressive disorders by country, sex, age, and year: findings from the Global Burden of Disease Study 2010. *PLOS Med.* 10:e1001547
- Grove WM, Zald DH, Lebow BS, Snitz BE, Nelson C. 2000. Clinical versus mechanical prediction: a meta-analysis. *Psychol. Assess.* 12:19–30
- Hoffman DH, Carter DJ, Viglucci Lopez CR, Benzmilller HL, Guo AX, et al. 2015. *Report to the Special Committee of the Board of Directors of the American Psychological Association: Independent Review Relating to APA Ethics Guidelines, National Security Interrogations, and Torture*. Chicago: Am. Psychol. Assoc.
- Horvath AO, Symonds DB. 1991. Relationship between working alliance and outcome in psychotherapy: a meta-analysis. *J. Couns. Psychol.* 38:139–49
- Howlader N, Noone A, Krapcho M, Miller D, Bishop K, et al. 2016. *SEER Cancer Statistics Review, 1975–2013*. Bethesda, MD: Natl. Cancer Inst.
- Insel TR. 2015. The NIMH experimental medicine initiative. *World Psychiatry* 14:151–53
- Insel TR, Cuthbert B, Garvey M, Heinssen R, Pine DS, et al. 2010. Research Domain Criteria (RDoC): toward a new classification framework for research on mental disorders. *Am. J. Psychiatry* 167:748–51
- Kazdin AE. 2007. Mediators and mechanisms of change in psychotherapy research. *Annu. Rev. Clin. Psychol.* 3:1–27
- Kelly EL. 1947. Research on the selection of clinical psychologists. *J. Clin. Psychol.* 3:39–42
- Kessler RC, Chiu WT, Demler O, Walters EE. 2005. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey replication. *Arch. Gen. Psychiatry* 62:617–27
- Lambert MJ, Barley DE. 2001. Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy* 38:357–61
- Levenson RW. 2007. The future of the clinical science movement: challenges, issues, and opportunities In *Psychological Clinical Science: Papers in Honor of Richard M. McFall*, ed. TA Treat, RR Bootzin, TB Baker, pp. 349–60. New York: Psychology Press
- Levenson RW. 2014. The future of clinical science training: new challenges and opportunities. *Clin. Psychol. Sci.* 2:35–45
- Levenson RW. 2016. Licensure for clinical scientists: a critical issue for psychological scientists. *Observer*, Jan. <http://www.psychologicalscience.org/observer/licensure-for-clinical-scientists-a-critical-issue-for-psychological-scientists>
- Levenson RW, Cowan CP, Cowan PA. 2010. A specialty clinic model for clinical science training: translating couples research into practice in the Berkeley Couples Clinic. In *Strengthening Couple Relationships for Optimal Child Development: Lessons from Research and Intervention*, ed. MS Schulz, MK Pruett, PK Kerig, RD Parke, pp. 197–209. Washington, DC: Am. Psychol. Assoc.
- McFall RM. 1991. Manifesto for a science of clinical psychology. *Clin. Psychol.* 44:75–88
- McFall RM. 2006. Doctoral training in clinical psychology. *Annu. Rev. Clin. Psychol.* 2:21–49
- McHugh RK, Barlow DH. 2010. The dissemination and implementation of evidence-based psychological treatments: a review of current efforts. *Am. Psychol.* 65:73–84
- Meehl PE. 1954. *Clinical Versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence*. Minneapolis, MN: Univ. Minnesota Press

- Meehl PE. 1973. Why I do not attend case conferences. In *Psychodiagnosis: Selected Papers*, ed. PE Meehl, pp. 225–302. Minneapolis, MN: Univ. Minnesota Press
- Miller JG. 1946. Clinical psychology in the Veterans Administration. *Am. Psychol.* 1:181–89
- Open Sci. Collab. 2015. Estimating the reproducibility of psychological science. *Science* 349:aac4716
- Peterson DR. 1968. The doctor of psychology program at the University of Illinois. *Am. Psychol.* 23:511–16
- Psychol. Clin. Sci. Accred. Syst. 2016a. *Accreditation Review Standards and Criteria*. Washington, DC: Psychol. Clin. Sci. Accred. Syst.
- Psychol. Clin. Sci. Accred. Syst. 2016b. *Welcome*. Psychol. Clin. Sci. Accred. Syst., Washington, DC. <http://www.pcsas.org/>
- Reeves WC, Strine TW, Pratt LA, Thompson W, Ahluwalia I, et al. 2011. Mental illness surveillance among adults in the United States. *MMWR Suppl.* 60:1–29
- Rogers CR. 1957. The necessary and sufficient conditions of therapeutic personality change. *J. Consult. Psychol.* 21:95–103
- Smith ML, Glass GV. 1977. Meta-analysis of psychotherapy outcome studies. *Am. Psychol.* 32:752–60
- Univ. Calif. Berkeley. 2016. *Clinical Science: Accreditation*. Berkeley, CA: Univ. Calif. Berkeley, Dep. Psychol. <http://psychology.berkeley.edu/students/graduate-program/clinical-science-accreditation>
- Wang PS, Berglund PA, Olfson M, Pincus HA, Wells KB, Kessler RC. 2005. Failure and delay in initial treatment contact after first onset of mental disorders in the National Comorbidity Survey replication. *Arch. Gen. Psychiatry* 62:603–13
- Zlotow SF, Nelson PD, Peterson RL. 2011. The history of broad and general education in scientific psychology: the foundation for professional psychology education and training. *Train. Educ. Prof. Psychol.* 5:1–8