

# Academy of Psychological Clinical Science (APCS)

Don C. Fowles

*University of Iowa, U.S.A.*

The Academy of Psychological Clinical Science (APCS) is an organization whose members are PhD programs in clinical psychology and clinical psychology internships that strongly value psychological clinical science. In the context of graduate training, psychological clinical science denotes training in both research and practicum or applied psychology. A fundamental tenet is that science is the foundation of the applied psychology aspects (i.e., a strongly science-based application). In general, APCS's mission is to champion science in all aspects of clinical psychology. The purpose of this entry is to trace the history of APCS from its origins to the present. The APCS website link is <http://acadpsychclinicalscience.org>.

## Historical Context

Two major issues provide the background context for the formation of APCS, both of which are aspects of what came to be known as the "Boulder model" embraced at the 1949 conference in Boulder, Colorado. That conference was convened to consider graduate training in clinical psychology. The first aspect of the Boulder model was to keep the professional training of clinical psychologists within academic departments of psychology. The key feature of this decision relevant to APCS is that a PhD degree from a department of psychology inherently emphasizes scientific research training. The applied components (clinical practice), although not incompatible with the PhD degree, are not central to the PhD in the way that scholarly research is. The second aspect was to base clinical practice on science, which was explicit in the model.

Although not completely unrelated to locating training in PhD programs, the question of whether clinical practice is evidence based is relevant to professional training even in professional schools—as exemplified by the movement toward evidence-based practice in medical schools (e.g., see Baker, McFall, & Shoham, 2008).

The ensuing years saw a rapid growth in the numbers of clinical graduate programs with a subsequent huge increase in the number of graduates. Many of these new programs were freestanding (i.e., not university-based) schools of professional psychology with a focus on training practitioners. Initially, the professional school programs claimed to be providing research training, but eventually that claim was dropped for many of them. In particular, the 1973 Vail Conference developed the practitioner–scholar model that endorsed training devoted to preparation for clinical practice (Bootzin, 2007; Grus, 2011). Although this practice was to be informed by science, research training was not required. Indeed, this conference endorsed the PsyD degree, which was to be awarded by programs “that prepare students for the practice of psychology,” whereas the “PhD degree was appropriate for those programs whose focus was on education and training to develop new knowledge in psychology” (Grus, 2011, p. 157). The numbers of professional school graduates soared. Although not all freestanding professional schools award the PsyD rather than the PhD, many do. Consequently, a rough estimate of the number of professional school graduates without training in research can be obtained from the number of PsyDs. For example, in 2005, more PsyD degrees were awarded (53%) than PhD degrees (47%) (Grus, 2011). Over time, the Boulder model lost the complete dominance it once enjoyed.

Although both the PhD practitioners and the PsyD practitioners often said that they

embraced science as the basis of practice, overall both frequently failed to embody the scientific orientation to practice. As noted by Nathan (2000), “Few clinicians undertake research or, for that matter, even read about it. The infrequency with which clinical practitioners utilize clinical research ... continues to be a disappointment and an embarrassment to the discipline” (p. 251). Further, when practice guidelines encouraged practitioners to employ empirically supported treatments, the guidelines were “troubling to some because they have the potential to interfere with practice and disenfranchise clinicians whose interventions have received little or no empirical support” (Nathan, 2000, p. 251). Baker et al. (2008) offered a similar summary:

Many clinical psychologists today, perhaps the majority, ... value personal clinical experience over research evidence ... tend to use assessment practices that have dubious psychometric support ... and tend not to use procedures for which there is the strongest evidence of efficacy. (p. 77)

Thus, a large gulf developed between clinical scientists and many practitioners—commonly called the *science–practice gap*.

The large numbers of these practitioners eventually became a major force in the American Psychological Association (APA) (Bootzin, 2007), considerably diminishing the influence of academic, university-based psychologists who previously had been dominant. In 1988, academic psychologists proposed a reorganization of APA that would restore some of their waning influence. When that proposal was rejected, about 400 university-based psychologists formed the American Psychological Society (APS; now renamed the Association for Psychological Science—also APS) to champion psychological science (Bootzin, 2007) with Alan Kraut as the executive director.

With this increasing influence of practitioners at APA, clinical scientists often felt that the scientific values they embraced were not as strongly represented at APA as they would like. Their disciplinary interest in clinical psychology continued to draw them to APA, but

the scientific values that constituted the core of what they did needed affirmation in another context. That is, the perception that scientific values were not well enough represented in the world of clinical psychology at a national level created a need for an organization that strongly championed psychological clinical science.

Although accreditation of clinical psychology programs was by no means the only issue contributing to this need for such an organization, it was one of these issues. Accreditation was implemented by the Committee on Accreditation (COA; now the Commission on Accreditation, also COA) that was housed in and significantly controlled by APA—hence, the designation of APA accreditation. There was some perception among strongly research-oriented clinical PhD programs that the criteria for accreditation were flawed in important respects. As Bootzin (2007) commented, “The more science-based clinical psychology programs and their home departments were becoming increasingly frustrated with APA accreditation” (p. 21), and there was talk of establishing through APS an alternative accreditation system in the late 1980s and early 1990s.

Accreditation is a complex process, making it difficult to identify all the issues that may have been involved in the frustrations experienced by premier programs. Nevertheless, some can be suggested. First, in the context of professional accreditation, the fact that the PhD degree is predominantly a research degree was neglected. It may have been said that COA valued research training, but the need for high-quality research training was not coequal with training for clinical practice, which was the focus of COA’s accreditation. For example, Barlow and Carl (2011) reported that clinical scientists “argue that pursuit of high-quality scientific research in academic programs historically has not been dictated by accreditation requirements” (p. 896). Thus, the accreditation process was not as well suited as it might be for a clinical science program. Further, when programs with outstanding

clinical science training encountered difficulty in accreditation, whereas other programs that provided mediocre clinical science training did not, many clinical scientists viewed accreditation evaluations as flawed. Some variation on the following comment was not uncommon: “We see ourselves as one of the top clinical science programs in the country. When COA acts as if we are a program of marginal quality, it is insulting.” What was needed was an accreditation system that strongly valued and understood clinical science training.

Second, the criteria for the curriculum were often said to embody a checklist mentality. Numerous areas were listed, and it was clear that each one could be met by a 3-semester-hour graduate course. COA claimed they were flexible with respect to how the curricular content could be covered, but they declined to be explicit about what alternatives were acceptable. Most programs did not find creative solutions and simply required students to take the courses in question. As courses proliferated, less time was available for high-quality research training, and years to completion of the PhD increased (see Barlow & Carl, 2011, p. 895).

Third, the accreditation process not infrequently demanded the allocation of additional resources to clinical programs within psychology departments. Some departmental executives found these demands to be problematic in view of the needs of other areas within the department.

As noted above, frustration with accreditation was sufficient to lead a number of clinical scientists and sympathetic colleagues to begin to think about creating an alternative accreditation system—one that valued all aspects of clinical science, including research training. The result was a series of events related to accreditation that resulted in the creation of APCS. These are well described by Bootzin (2007), whose summary informs the following narrative.

### **Creation of the Academy of Psychological Clinical Science**

A “Summit on Accreditation” held in Chicago in 1992 created a major focus on the accreditation issue. It was sponsored by APS and COGDOP (the Council of Graduate Departments of Psychology) and funded in part by the U.S. National Institute of Mental Health (NIMH). Marilyn Brewer chaired the Steering Committee. Chairs of psychology departments were invited (i.e., the members of COGDOP); the chairs could invite directors of clinical training if they wished. The meeting focused on the problems with accreditation. It included a core talk by Richard McFall articulating the need for accreditation to embrace the clinical science foundation of clinical psychology.

In connection with the summit, a decision was taken to form a steering committee for alternative accreditation, chaired by Marilyn Brewer. Members of the committee were chosen to include representation of APS, COGDOP, school psychology, counseling psychology, and clinical psychology (the Council of University Directors of Clinical Psychology, or CUDCP). The charge to the committee was to develop an accreditation system compatible with clinical science and research training that could be adopted if the APA accreditation system did not respond to the pressures from the summit. After several meetings, the committee completed a model accreditation system.

At the same time, an agreement among APA, COGDOP, CUDCP, and others initiated a restructuring of COA accreditation. COA was to include members of relevant constituent groups, such as COGDOP, CUDCP, the National Council of Schools and Programs of Professional Psychology (NCSPP), the Council of Counseling Psychology Training Programs (CCPTP), the Council of Directors of School Psychology (CDSPP), and others. For example, COGDOP was to have four representatives on COA, and CUDCP would have two. Under new guidelines, programs were to be evaluated in terms of their own training model, including

clinical science. Some recommendations from the Brewer alternative accreditation committee were incorporated. Two important ones were (a) the principle that demonstrating expertise did not necessarily require a checklist of courses, and (b) the evaluation of programs would be affected by an overall judgment that took into account all strengths and weaknesses in a more quantitative manner than the previous multiple-threshold model (in which all that mattered was meeting a minimum quality standard in each domain).

In the meantime, Richard McFall at Indiana University initiated an event that was to result in the formation of APCS. At the Summit on Accreditation, he consulted many colleagues in order to develop a list of graduate clinical psychology programs that strongly valued clinical science and of faculty members from those programs who especially cared about the future of clinical science. With support from Indiana University and cosponsorship from APS and NIMH, he organized a "Clinical Science in the 21st Century" conference, which was held in Bloomington, Indiana, on April 22–24, 1994. Using the lists of programs and faculty he had compiled, McFall selected one person to invite from each of 35 clinical science programs; 25 attended. Because the invitees were selected by McFall rather than the programs, technically they did not represent the programs, but functionally they did. APS and NIMH were represented by Alan Kraut and Jane Steinberg, respectively.

After 2 days of discussion, this group voted to create APCS as an organization of *training programs* (rather than individuals) and elected a steering committee to develop a procedure to achieve this goal. McFall chaired the committee with Richard Bootzin, Don Fowles, Robert Levenson, Beth Meyerowitz, and Gregory Miller as members. This committee met several times with financial support from Alan Kraut and APS. At a meeting on August 13–14, 1994, the Steering Committee drafted a document that included a mission statement, the primary goals of the academy, variables to be considered in evaluating programs for

admission to the academy, and suggested activities of the academy. That draft was circulated to the coalition (the 35 individuals invited to Bloomington) for comments and revised.

The steering committee also developed criteria for membership in APCS, along with guidelines for a bootstrap mechanism to review programs for membership and thus create the academy. In broad terms, the criteria emphasized high-quality research training and an integration of science and practicum (along with other, more routine requirements). Eligibility for membership at this time was limited to the 35 programs that had been invited to the Bloomington conference. The steering committee urged those programs to sign on for provisional membership in the academy by submitting a formal statement of interest, paying a \$200 application fee, and agreeing to proceed to submit materials for admission. The program designated a representative of their program to the Academy. These representatives then became a pool of potential reviewers of applications for membership. McFall and Fowles implemented this procedure (Fowles was on sabbatical at Indiana University) and consulted with the steering committee as the procedures evolved.

Guidelines for the application (including criteria for membership) were sent out to those programs who were provisional members. Three-person committees reviewed the applications and wrote evaluative summaries of each application, based on the criteria for membership. A procedure was set up in the case of split votes, but it was unnecessary. As noted, review committee members were drawn from the representatives of the provisional members. Because only the six members of the steering committee had participated in the discussions about creating APCS, each of the six chaired a review committee on the first round of reviews, and each committee reviewed two programs. Programs represented by the Steering Committee members were excluded from this round. On the second round of reviews, with seven review committees, the chairs were drawn from the (nonchair) members of the

first-round review committees. McFall and Fowles continued to handle the clerical work, with the other four Steering Committee members distributed across four committees as (nonchair) members. Susan Campbell administered reviews of the six programs represented by Steering Committee members by setting up three review panels (Steering Committee members could not serve on these panels) so that Steering Committee members were unaware of the reviewers. Twenty-six programs applied for membership, and all were admitted to APCS—not a surprising result, because they had been prescreened for suitability at the time of the Bloomington conference.

On July 1–2, 1995, APCS met for the first time at the APS conference in New York City. Representatives of 21 of the 26 member programs attended. An organizational structure was adopted with a six-person executive committee consisting of the president, secretary, treasurer, and three members-at-large—all with 3-year terms. Officers and Executive Committee members were elected. Richard McFall was elected president, Robert Levenson secretary, Don Fowles treasurer, and Dick Bootzin, Beth Meyerowitz, and Neil Schneiderman members-at-large. The Academy of Psychological Clinical Science was adopted as the official name. The group drafted mission statements and by-laws. In the future, membership was to be open to all programs that met the criteria. APCS was to be affiliated with APS, and annual meetings were to be held in connection with the APS annual meeting.

A discussion of the way to evaluate programs for membership, based on the experience of reviewing programs to create the academy, suggested that substantial weight be given to the quality of the faculty and the kinds of jobs their graduates have—both emphasizing scientific contributions. These two criteria indicate a strong scientific orientation. If a further examination of the graduate training indicates a strong integration of practicum and science, the program is highly likely to be eligible for membership. If faculty quality is low and/or the graduates are not pursuing careers in clinical

science, then closer scrutiny should be given to such things as curriculum, resources, and student quality. Because an important aspect of APCS's mission is to *encourage* clinical science training, membership was possible if there was good evidence that the program faculty were striving to become a clinical science program. Such programs informally were seen as “aspirational members” with the hope that APCS membership would strengthen their movement toward clinical science training.

The Charter and By-Laws Committee was charged with filing a Certificate of Incorporation to charter APCS in Delaware. Pro bono contributions by Mary Graham, an attorney with the Morris, Nichols, Arsht & Tunnell law firm in Wilmington, Delaware, made this task possible. The filing was completed in 1997. Robert Simons, as membership chair, was charged with developing procedures for reviewing membership applications.

At the 1996 meeting, Howard Berenbaum, reporting for the Training Subcommittee of the Education Committee, raised the question of APCS's relationship with research-oriented internships. The idea was greeted with enthusiasm, and the subcommittee was charged with the task of meeting with representatives of internships to discuss possible membership in APCS and other ways of cooperating. Berenbaum and Tim Strauman pursued this important initiative, which was successful and opened a new chapter in APCS history.

At the meeting in 1998, Bob Simons, chair of the Membership Committee, announced that seven internships became members of APCS. Those internship programs were the Boston Tufts University/Boston University/Veterans Affairs Medical Center Consortium, Brown University Medical School, Medical University of South Carolina, University of Washington School of Medicine, Western Psychiatric Institutes and Clinics, University of Wisconsin Medical School, and Palo Alto Veterans Affairs Hospital. The University of Maryland School of Medicine was added quickly thereafter. This historic event added a major new dimension to APCS that was not envisioned

at the 1994 meeting in Bloomington or by the Steering Committee that developed the procedures for creating the academy. It provided an opportunity for supporting clinical science internships and the potential of greater integration of science training in graduate programs and internships. Additional growth in internship members has been slow, but by the 2013 meeting, 11 internships were members of APCS.

### APCS Activities

With these developments, APCS was created and the nature of its membership established. From the founding meeting in 1995, APCS represented clinical science in many contexts and worked to protect and champion clinical science training. The following is a long, but not exhaustive, list of activities, developments, and projects.

APCS established ongoing discussions with NIMH. Because NIMH valued the training both of clinical researchers and of clinicians able to deliver empirically supported treatments, collaboration with APCS was straightforward. In one important event, on January 5–6, 2004, NIMH and APCS held a joint meeting at NIMH on training in psychological clinical science.

Starting in 2000, the president of APCS served on the APS program committee as chair of the clinical track. In 2002, the president of the Society for a Scientific Clinical Psychology (SSCP) was added, and the two presidents served as co-chairs.

Academy meetings covered a wide range of topics relevant to clinical science. The functioning and changing characteristics of COA were closely monitored. Reports were given at academy meetings on such topics as problems with quality control regarding APA's continuing education offerings, various NIMH initiatives (e.g., translational research), events held by the Practice Guidelines Coalition, the results of a survey of APCS members' attitudes toward prescription privileges for psychologists, COGDOP's unhappiness with APA for

undermining the independence of COA and for violating the terms of an agreement (known as the *Kilbey agreement*) between COGDOP and COA, and results of contact with a clinical science group in China to help them develop an early intervention for traumatic responses to an earthquake. There were discussions of the ongoing shortage of internship slots and of the declining opportunities for PhD-level direct service providers (being replaced by MA-level clinicians) but improving opportunities for clinical researchers. In 2000, 2011, and 2013, Susan Zlotlow, the director of the APA Program Consultation and Accreditation Office, made presentations on the workings of APA's COA at APCS meetings.

APCS, along with NIMH and APS, provided financial support for an "Integrative Psychological Science" conference in Bloomington, Indiana, on April 11–14, 2002. A major thrust of this conference was to encourage clinical graduate training to include other basic science disciplines (e.g., cognitive psychology and neuroscience).

Two events honored individuals for their contributions to clinical science. In 2004, APCS gave Alan Kraut an award for "outstanding contributions to the advancement of psychological clinical science" in recognition of his extensive support of APCS and, more generally, of clinical science. A festschrift was held for McFall at the 2004 APS meeting, with a full day of presentations in his honor. These were published as a book (Treat, Bootzin, & Baker, 2007).

In June 2005, APCS attended COA's "Snowbird Summit" on potential revisions to the structure of COA. At the meeting, APCS representatives believed that they had worked out an agreement that would have given clinical science programs control over their COA accreditation. The failure of that presumed agreement to materialize left many feeling that a new, separate clinical science accreditation system was the only attractive option.

Two publications by McFall provided a statement for doctoral programs of what the clinical science model involves in terms of philosophy, training, and application. His chapter

in the McFall festschrift book was one (Treat et al., 2007). His 2006 *Annual Review of Clinical Psychology* chapter was the second (McFall, 2006).

A “white paper” on the characteristics of an ideal undergraduate psychology major for future clinical scientists was completed in 2012 and will be posted on the APCS website.

Historically, the National Science Foundation (NSF) has excluded clinical psychology graduate students from competition for NSF graduate fellowships—on the grounds that the fellowships are for basic research. APCS, especially with help from Alan Kraut, has pressed NSF to treat clinical science graduate students doing basic research as eligible for the fellowships.

### **Dissemination**

A major interest over the years has been dissemination, by which is meant dissemination of empirically supported treatments. Many empirically supported treatments have been established in controlled research contexts, but these treatments have not become readily available to the public—a major problem of interest to both APCS and NIMH. A Dissemination Committee, chaired by Marc Atkins, was created to discuss ways in which APCS potentially could contribute to dissemination needs in the field. In addition to ongoing discussions within the committee, the committee also met with interested program representatives at the Association for Behavioral and Cognitive Therapies (ABCT) in November 2005. Discussion focused on (a) making plans for a Dissemination Conference to obtain an NIH-funded training grant for APCS that focuses on dissemination and on training the new generation of treatment developers, implementers, and evaluators; (b) developing training models in dissemination science for academy programs (curricula, web-based seminars, and shared resources); and (c) establishing best practices for dissemination science (e.g., establishing goals for practica and internships).

As a result of an initiative by Robert Simons, APCS initiated the Delaware Project, intended to be a working conference on the dissemination of evidence-based treatment. The initial organizers, Timothy Fowles and Ryan Beveridge, obtained support and sponsorship first from NIMH and then from the National Institute of Drug Abuse (NIDA) and the National Institutes of Health Office of Behavioral and Social Sciences Research. In the process, the scope of the project expanded beyond dissemination to include the entire spectrum of intervention development—from basic translational research to implementation and dissemination—and Varda Shoham (representing NIMH) helped to organize the conference. The conference was held at the University of Delaware on October 26–28, 2011, with the title “The Delaware Project on Clinical Science Training: From Intervention Development to Implementation.” Edna Foa and Bruce Chorpita gave “stimulus talks” designed to stimulate discussion in work groups later in the meeting. Information about the conference and continuing activities is available at the Delaware Project website: <http://www.delawareproject.org/wordpress/>.

Over time, the number of members of APCS grew steadily, especially doctoral programs. By the 1999 meeting, the membership was 36 graduate programs and nine internships. By 2009, there were 52 doctoral programs and 10 internships. At most recent count (May 2013), the numbers were 55 and 11.

### **APCS Accreditation**

As noted above, clinical scientists’ frustration with APA accreditation contributed to the creation of APCS. The COA response to the Steering Committee for alternative accreditation looked hopeful for a while, but the improvements eventually were seen as more apparent than real. The fundamental problem seemed to be that COA’s mission encompassed large numbers of professional groups that had less concern for clinical science in the academy’s sense of educating creators

of knowledge and providing science-based health care. Although research training was inherently important in the Boulder model, clinical scientists felt that the criteria for accreditation employed by COA would never make it fundamental to all training.

The first serious discussion of an alternative accreditation system at an academy meeting was led by McFall in 2003. The Executive Committee settled on several possible points of action: Include leaders of NIMH and the Office of Veterans Affairs (VA) system in discussions about APCS's concerns with the future of COA, develop a unified description of *clinical science* and criteria by which to judge clinical science programs, and indicate to COA (as well as NIMH and other bodies) how accreditation issues might impede clinical scientists from doing their work (e.g., prohibiting access to clinical subjects for clinical scientists who are not licensed).

At the 2004 meeting, it was decided to contact the Council of Higher Education Accreditation (CHEA) to see what would be involved in establishing a separate APCS accreditation. There are governmental and nongovernmental organizations that recognize accrediting bodies; the U.S. Department of Education is the relevant governmental organization, and CHEA is the relevant nongovernmental organization. Academy values and review criteria (i.e., outcome-focused criteria) fit better with CHEA. Thus, CHEA was the organization that would need to recognize an APCS accreditation.

A major step was taken in January 2006, when the APCS leadership met in Tucson to discuss accreditation. At the conclusion of the meeting, the Executive Committee endorsed the development of a draft of an independent accreditation system.

In March 2006, Kraut invited Timothy Baker, Levenson, McFall, and Shoham to Washington, D.C., for three meetings relevant to the potential development of an independent accreditation system. The first meeting was with the heads of two relevant branches of NIDA: Susan Weiss, chief of the Science Policy

Branch, and Lisa Onken, chief of the Behavioral and Integrative Treatment Branch. The second meeting was with NIMH Assistant Director Richard Nakamura and other division heads. The third meeting was with a key person at CHEA: Judith Watkins, vice president for Accreditation Services. All three meetings went well, with considerable support for an alternative accreditation system.

After the Tucson meeting, a subcommittee (Baker, McFall, Shoham, Simons, and Teresa Treat) then drafted the proposed independent accreditation system that was distributed to the representatives of APCS member programs in mid-May 2006. At the 2006 annual meeting, this document was extensively discussed, the name Psychological Clinical Science Accreditation System (PCSAS) was selected, and the goals of the system were articulated as follows: Serve as a supplementary (to COA) accreditation system that *evolves* into a stand-alone system, permit greater program freedom to foster innovation, foster superb science training, fully integrate research and application training, foster knowledge and skills regarding application (assessment and intervention) superior to those inculcated by traditional training programs, and identify strong science-based programs for the public. Numerous representatives expressed a desire to replace COA with a new system based on a positive alternative vision of training in clinical science. APS offered to provide logistical support for the development of an independent accreditation system (e.g., staff support for lobbying, addressing legal issues, and fundraising).

A revised draft of the proposed independent accreditation system was distributed to APCS members in the summer of 2006, and comments were gathered from members. In October 2006, APCS member programs voted to proceed with the development of the proposed PCSAS. Baker, McFall, and Shoham drafted a structure for PCSAS with comments from Simons and Treat. Jeff Wolters from the Morris & Nichols law firm in Delaware conducted a legal review of the proposal. Shoham

and Strauman met with representatives of the VA and NIMH and received encouraging responses. CHEA was contacted again about PCSAS accreditation, and Treat attended a CHEA meeting. The progress was discussed at the 2007 APCS meeting.

The next steps were to draft by-laws, incorporate PCSAS and obtain 501(c)(3) status from the IRS, begin fundraising, have APCS appoint a Board of Directors for PCSAS, have the PCSAS Board hire an executive director, and form initial review committees. Many of these steps were completed in 2007–2008. The PCSAS Board appointed Richard McFall as executive director at its 2008 meeting.

In 2008, an invited paper by Baker, McFall, and Shoham published in *Psychological Science in the Public Interest (PSPI)* laid out the public health impact of intervention science in clinical psychology. It compared current practice in clinical psychology to the prescientific era in medicine, reviewed evidence for many science-based interventions that could be adopted, and proposed that an accreditation system that identifies training based in science is badly needed. This publication constituted a fundamental justification for the new PCSAS accreditation system and articulated a major agenda for APCS (promoting science-based clinical practice nationally).

### The Future

The fundamental goals of APCS are to promote the clinical science model of training and to reform mental and behavioral health care by improving “the quality and clinical and public health impact of clinical psychology” (Baker et al., 2008) through an emphasis on clinical science. APCS has come a long way in the years since the original 1995 meeting, but these goals are large and difficult to achieve, and considerable resistance can be expected from vested interests. Nevertheless, as Baker et al. (2008) summarized, such a transformation was effected in medicine. Further, increasing

pressure from government and the insurance industry to provide services that maximally benefit the public will strengthen efforts by APCS. Consequently, it is not unreasonable to hope that these changes can be achieved in clinical psychology. If so, the benefits for public health will be great.

**SEE ALSO:** American Psychological Association (APA); Association for Psychological Science (APS); McFall, Richard M. (b. 1939); Psychological Clinical Science Accreditation System (PCSAS); Training Models in Clinical Psychology; Treatment Dissemination

### References

- Baker, T. B., McFall, R. M., & Shoham, V. (2008). Current status and future prospects of clinical psychology: Toward a scientifically principled approach to mental and behavioral health care. *Psychological Science in the Public Interest, 9*(2), 67–103.
- Barlow, D. H., & Carl, J. R. (2011). The future of clinical psychology: Promises, perspectives, and predictions. In D. H. Barlow (Ed.), *The Oxford handbook of clinical psychology* (pp. 891–911). New York: Oxford University Press.
- Bootzin, R. R. (2007). Psychological clinical science: Why and how we got to where we are. In T. A. Treat, R. R. Bootzin, & T. B. Baker (Eds.), *Psychological clinical science: Papers in honor of Richard M. McFall* (pp. 3–28). New York: Psychology Press.
- Grus, C. L. (2011). Training, credentialing, and new roles in clinical psychology: Emerging trends. In D. H. Barlow (Ed.), *The Oxford handbook of clinical psychology* (Editor-in-Chief Peter E. Nathan, pp. 150–168). New York: Oxford University Press.
- McFall, R. M. (2006). Doctoral training in clinical psychology. *Annual Review of Clinical Psychology, 2*, 21–49.
- Nathan, P. E. (2000). The Boulder model: A dream deferred—or lost? *American Psychologist, 55*, 250–252.

### Further Reading

- Cuthbert, B. N. (2007). Translational research and the future of psychological clinical science. In T. A. Treat, R. R. Bootzin, & T. B. Baker (Eds.),

- Psychological clinical science: Papers in honor of Richard M. McFall* (pp. 321–347). New York: Psychology Press.
- Levenson, R. M. (2007). The future of the clinical science movement: Challenges, issues, and opportunities. In T. A. Treat, R. R. Bootzin, & T. B. Baker (Eds.), *Psychological clinical science: Papers in honor of Richard M. McFall* (pp. 349–360). New York: Psychology Press.
- McFall, R. M. (2007). On psychological clinical science. In T. A. Treat, R. R. Bootzin, & T. B. Baker (Eds.), *Psychological clinical science: Papers in honor of Richard M. McFall* (pp. 363–396). New York: Psychology Press.