Graduate Education in Clinical Psychology

"We're Not in Kansas Anymore"

Cynthia D. Belar
University of Florida Health Science Center

In this article, the author addresses changes impacting graduate education in clinical psychology, including those in technology, the academy, and the marketplace, and discusses implications of these changes for psychology. Significant concerns are raised concerning issues of supply and demand as well as the nature of the product of graduate education and training.

When Dorothy awoke in the Land of Oz, she discovered a Technicolor land full of wondrous things and people. She thought she was "over the rainbow" and "someplace where there isn't any trouble." But she soon learned that the Land of Oz could be a dangerous place and that to navigate it successfully would require a commitment to purpose plus considerable ingenuity.

After reflecting on graduate education in clinical psychology, I, too, have concluded that we are not in Kansas anymore. In this article, I briefly describe important changes and then highlight issues that are critical to the success of psychology's journey into the future. Psychology's landscape has been colored by dramatic changes in technology, the academy itself, and the marketplace—changes that continue to occur in the context of a number of significant background features.

Background Features

One background feature is constrained resources. Higher education has been experiencing diminished financial assistance, a trend that is not likely to change. In fact, graduate education has not been prominent on anyone's political agenda. Obtaining Congressional support has been difficult due, in part, to the perception that there is no problem; our system of graduate education is perceived as the best in the world (Holbrook, 1997). Despite these limited resources, the number of doctoral programs in professional psychology has grown. As of December 1996, there were 306 accredited doctoral programs, the majority in clinical psychology (American Psychological Association [APA], Committee on Accreditation, 1997). Consisting of university-based programs, the Council of University Directors of Clinical Psychology (CUDCP) now has 156 members.

Another background feature is changing demographics. By the year 2000, people of color will constitute approximately one third of the U.S. population. In psychology, needs for attention to individual and group differences in teaching, research, and practice have been well articulated, with risks of "cultural malpractice" noted (Bernal & Castro, 1994; Hall, 1997).

Finally, the background of higher education is peppered with demands for increased accountability to students and their parents, governmental groups, and the public. With limited resources, educational systems cannot be all things to all people. Universities must continually set priorities, focus on goals, and increase internal accountability for allocation of resources. For example, the University of Florida has developed the "UF Bank," which matches information about productivity against expenditure data to assess the relative productivity of various budgetary units. Productivity is measured by teaching, sponsored research, and fund-raising; there is no credit for service to the profession or professional development. Nor is there credit for unfunded research, despite the fact that there will continue to be insufficient money available to support funded research for all faculty efforts.

Accounting systems that universities develop will have important implications for the role of faculty and the integration of science and practice. Those without credit for unfunded research could foster more unidimensional role models, such as the professor who excels in funded research but has little involvement in clinical practice. Historically, scientist–practitioners found that model of graduate education unacceptable.

Within psychology, recent changes in APA's accreditation of professional education and training programs highlight striking shifts in attitudes about accountability. In 1996, the APA Committee on Accreditation imple-

Editor's note. Articles based on APA award addresses are given special consideration in the *American Psychologist*'s editorial selection process.

A version of this article was originally presented as part of an Award for Distinguished Contributions to Education and Training in Psychology address at the 105th Annual Convention of the American Psychological Association, Chicago, IL, August 1997.

Author's note. Correspondence concerning this article should be addressed to Cynthia D. Belar, Department of Clinical and Health Psychology, University of Florida Health Science Center, Box 100165, Gainesville, FL 32610-0165. Electronic mail may be sent to cbelar@hp.ufl.edu.

 0003-066X/98/$2.00
Vol. 53, No. 4, 456–464

mented new guidelines reflecting the most extensive revisions in more than 50 years of accreditation activities. There is now an increased focus on program outcomes and the relevance of those outcomes to the specific program model and educational objectives (APA, Committee on Accreditation, 1997).

Another new development is the accreditation of education and training at the postdoctoral level. Criteria were developed after extensive collaboration with the Interorganizational Council for Accreditation of Postdoctoral Programs in Psychology, which had heavily relied on the policy documents written by delegates to the 1992 National Conference on Postdoctoral Training in Professional Psychology, held in Ann Arbor, Michigan (Belar et al., 1993). To date, two postdoctoral programs have received APA accreditation (Menninger Clinic and University of California, Los Angeles, Harbor Medical Center).

Changes in Technology

In the context of these background features, changes in technology have occurred at a whirlwind pace. The speed and storage capacity of computers have doubled every 18–24 months, whereas cost and size have decreased (Wulf, 1995). Use of the Internet permits colleagues worldwide to communicate in nearly real time and students to access multiple databases. Society is in the midst of a technology revolution that has resulted in an explosion of new information and unprecedented speed in its dissemination.

Delivery systems in education are also undergoing drastic changes as technology removes the barriers of time, space, and cost. Course sharing in cyberspace is common. There are numerous examples of telecommunication and computer-based learning programs in other disciplines, especially in professional continuing education and basic medical education. However, I believe that graduate education in psychology lags behind other fields in these developments. University of Florida faculty have repeatedly heard my dream that many of the university's basic courses could be offered on CD-ROM in a self-paced fashion. Think of the potential for providing a core psychology and clinical science curriculum (including interviewing, mental status examinations, psychological test administration, and interventions). Then, consider adding a virtual reality component to training in assessment and psychotherapy. The nature of faculty's time with students would differ considerably in this model. There could be increased efficiency and more opportunities for personalized interactions. But if other demands on faculty's time take precedence and personal contact actually decreases, what might be the cost to the educational process?

The role of technology in the delivery of psychological services is also increasing. For example, in a randomized controlled study of computer-assisted psychotherapy, Dolezal-Wood, Belar, and Snibbe (1998) found significant improvements, but equivalent outcomes, for both standard cognitive–behavioral group treatment and computer-assisted treatment, although up to one third less therapist time would have been required with the latter. Advances in telecommunications have permitted the development of "behavioral telehealth," another frontier for the delivery of services and now a major topic within various APA groups.

Students will have to be computer literate. In training students, instructors must also address the ethical issues associated with increased threats to privacy and confidentiality in these new models of education and service. And how will personal mentoring be balanced with the efficiency of computerized learning? How important is the presence of a human being in training and clinical service? Psychology has always been a "caring profession." Like the Tin Man in the Land of Oz, the profession has always had a heart. Psychological science can help answer these important questions for psychology and for other disciplines as well.

In the land of technology, which may seem like wizardry to some people, there are increasing demands on limited resources for hardware, software, and maintenance. In educational systems, more personnel dollars will be directed away from faculty positions to provide for increased needs for technical staff support. And faculty are concerned about the amount of curriculum time spent teaching students to work with new technologies (e.g., a computer program, a specific psychological test). Their fear is that they will train technologists with tools rather than creative thinkers who can solve problems. If they do the former, the discipline's future is self-limited. But the opportunities that technology offers are enormous, and failure to recognize the impact of this fundamental change in graduate education will be disastrous.

Changes in the Academy

Changes in the academy are marked by challenges to the tenure system, lack of mandatory retirement, limited resources for research, and increased emphasis on undergraduate education. Faculty downsizing continues, with many institutions filling tenure-track positions with "gypsy profs"—non-tenure-track part-time instructors who are usually hired to manage undergraduate teaching demands or clinical teaching responsibilities. In fact, nearly 40% of the nation's faculty are employed as such (Nelson & Berube, 1994). Implications of this trend for graduate education include fewer research mentors and perhaps fewer teaching assistantships available for students.

Universities are also seeking new markets for educational services through distance learning and continuing education, the needs for which have accelerated because of the decreasing half-life of information. Universities are ideal as centers for lifelong learning and career development. In offering such programs, universities can be responsive to societal needs, increase revenue streams, and provide important interfaces with the marketplace for their students.

Universities will change. A current focus is on optimization of resources through multidisciplinary training programs and departments. Similar to what is occurring in health care, disciplinary boundaries are less clear as faculty collaborate to solve complex problems along programmatic lines. In health care, cross-training with role overlap is becoming more commonplace. Psychologists must be educated and trained to work in multidisciplinary environments.

The development of dual-degree programs is another trend, because such "value-added" education can prepare students for a broader range of careers. For example, clinical psychology students at the University of Florida can minor in health services administration or obtain a master's degree in the area by adding another year to their program. Other psychology programs have provided dual-degree opportunities with public health (University of Alabama at Birmingham and Loma Linda University) and law (Widener University). More programs are in development (e.g., with neuroscience at the University of California, San Diego, and with administration at Gallaudet University).

There will also be increased attention to duplication of efforts across campus. How long will administrators continue to support separate APA-accredited programs in clinical, counseling, and school psychology (e.g., the State University of New York at Binghamton recently combined its counseling and school psychology programs). Usually housed in different colleges across campus, all accredited programs purport to have a core curriculum in psychology, and differences in outcomes of clinical and counseling programs, in particular, are difficult to ascertain. Perhaps psychology should be more proactive in addressing these issues and maximizing its own resources.

But change is not new to graduate education in clinical psychology; in fact, there have been fundamental changes in its structure during the past century, particularly in the internship. Before World War II, most graduate education in clinical psychology was academic; if students were so inclined, they found internships on their own. When the Veterans Administration's need for mental health services for returning veterans raised the question "Who is a clinical psychologist?" APA responded by appointing the Committee on Training in Clinical Psychology, chaired first by David Sears and then by David Shakow. This committee crafted the scientist–practitioner model, later adopted by the Boulder Conference in 1949. The creation of the scientist–practitioner model of clinical psychology added a new component, the internship, to the didactic and research experiences that were already a part of graduate education. The purpose of the internship was to ensure experiential training for all clinical psychologists—not only to prepare them for services with patients but also to foster more research on clinical topics in doctoral education. The specific paradigm articulated was that of two years of basic academic training, followed by a third-year internship, followed by a return to graduate school during the fourth year for dissertation research on clinical problems.

Over the years, graduate programs have modified this paradigm. Few programs require students to return after internship to conduct their dissertation research. In fact, "all-but-dissertation" status is one that programs actively discourage. Programs encourage students to complete their dissertations, or at least have data collected, before internship. And the length of graduate education has increased from four years in the Boulder model to an average of nearly six years in university-based clinical psychology programs (CUDCP, 1997).

Moreover, doctoral programs in clinical psychology are no longer made up of course work and research training taught by a faculty with little clinical involvement. In contrast to the time of Shakow, applied program faculty are expected to have appropriate clinical expertise and credentials; in fact, approximately 63% of program faculty are actually engaged in the delivery of services (APA, Committee on Accreditation, 1997). In addition, most programs (76%) have developed their own in-house training clinics for practicum experiences with core clinical faculty. These clinics, along with the development of an array of external practicum sites, provide a much more extensive experiential component to training than ever before. At the 1997 midwinter meeting, nearly all CUDCP members present reported that their students typically obtain at least 1,500 hours of supervised clinical experience prior to internship. Data obtained on the biennial survey were consistent; during the first four years in graduate school, the average number of hours per week in required clinical practice is 4, 10, 13, and 10, respectively. Nearly 60% of programs report that students complete at least two years of a supervised externship (10 hours or more a week) before internship. Integration of theory, research, and practice is now a goal at the preinternship level.

There have also been changes in the internship. Supervised experiences developed into programmatic efforts, and programs sought independent accreditation. The Association of Psychology Postdoctoral and Internship Centers (APPIC) was formed in 1968 to manage the application process and has become a major organization in American psychology. Ten years ago, and nearly 40 years after the Boulder Conference, APPIC sponsored the first National Conference on Internship Training in Professional Psychology, where delegates agreed that students should complete the dissertation before internship and recommended that the internship be a 2-year process, 1 predoctoral and 1 postdoctoral (Belar et al., 1989). There was a strong sentiment that psychology as a discipline should set standards for this 2nd year of training, rather than the state-appointed licensing boards that defined the supervised experience required for autonomous practice. Many delegates believed the entire internship should be postdoctoral, but the final agreement was that the field was not yet ready for such a change.

The issue of the "postdoctoral internship" has been discussed on numerous occasions, sometimes with heated debate. I do not provide a detailed analysis here, but arguments against such a change include the concern that it would

a. violate the long-standing tradition of a predoctoral internship,
b. result in a loss of control by program faculty over choice of internship and the internship experience,
c. fail to ensure that students would complete an internship,
d. reduce motivation of doctoral programs to provide sufficient practicum training, and
e. reduce revenues to programs that charge tuition to students on internship.

A basic argument in favor of the postdoctoral internship is that the goals of the Boulder model are now achieved by the integration of research and practice in the academic programs, as noted above; the internship is viewed as having become an additional requirement for the doctorate. Other arguments include the following:

a. A university cannot have a degree requirement that it cannot promise to deliver;
b. a university degree certifies one's education and training, not one's readiness for practice with consumers; thus, universities never give the final "stamp of approval" for practice;
c. change to the postdoctoral level does not mean that internships are unnecessary to become a licensed psychologist;
d. it would reduce disruption (family, financial, and environmental) required by the traditional paradigm; and
e. it would increase parity and status with other health care professionals who actually have less training and fewer skills at the postdoctoral level.

As the financing of internship training becomes increasingly problematic in systems dependent on reimbursement for services, there may also be an economic benefit. Postdoctoral interns may be eligible for limited licenses and, thus, perhaps may be able to obtain reimbursement for the bona fide clinical services rendered.

In the winter of 1997, the CUDCP Executive Board presented to its members a formal proposal supporting the pursuit of change to a postdoctoral internship. The motion was overwhelmingly approved at the annual meeting. However, given the importance of the proposed change, the Executive Board provided for pro and con statements to be sent to the entire membership along with a mail ballot. The motion was approved 54 to 40. Although not a landslide vote, it was still a landmark event for the field; for the first time, the balance of opinion had shifted.

Efforts are now underway to pursue change in a constructive manner. Accreditation criteria must not be barriers to standards set by major groups within graduate education and training in clinical psychology. And there must be continuing attention to issues of quality assurance for entry into autonomous practice for clinical psychologists. All of these things must be accomplished in the context of systematic collaboration with other groups in organized psychology.

Changes in the Marketplace

The final area of change impacting graduate education that I address here involves the marketplace for graduates of clinical psychology programs. At the end of World War II, national policy promoted graduate education and the development of scientific talent to maintain superiority in national defense. Of great concern was the predicted shortage of PhDs in the national workforce. Now the controversy is whether there is an overproduction of PhDs throughout the sciences. Although the rate of growth in enrollment has declined since the 1980s and early 1990s, an all-time high of 41,942 persons received doctorates in 1995 according to the Council of Graduate Schools (1997).

Some of those who assert that there is an oversupply of PhDs attribute this problem to universities admitting students in order to meet institutional teaching and research needs rather than the needs of society or the economy (Masey & Goldman, 1995). A somewhat different position has been taken by the Committee on Science, Engineering, and Public Policy (COSEPUP)—a joint committee of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. Its 1995 report drew no conclusion about oversupply but did emphasize a mismatch between the number of new PhDs and traditional academic research positions. Less than one third of all those receiving PhDs from 1983 to 1986 were in tenure-track positions or had tenure by 1991. At least half entered the workforce in nonacademic positions; 36% were in business or industry. COSEPUP called for a redesign of graduate education to shorten time to degree (the current median for all fields is eight years), to provide for accessory degrees, and to prepare students with portable skills and market savvy (COSEPUP, 1995).

Clinical psychology has been a leader among scientific disciplines in preparing doctoral students to work in settings other than traditional academic ones. According to an analysis by the APA Research Office (1997b), presented in Table 1, approximately 25% of 1995 doctorate recipients from university-based clinical psychology programs were employed in academic settings; 48% were in health care delivery settings; 14% were in other human services; and 13% were in business, government, or other settings. This diversity of employment settings is consistent with the fact that, historically, more than 70% of university-based programs have subscribed to the scientist–practitioner model of education and training (CUDCP, 1997) and have endorsed "graduate education that produces a Clinical Psychologist capable of functioning as a scientific investigator and as a practitioner, and who may function as either or both, consistent with the highest standards in Clinical Psychology" (CUDCP, 1995, p. 1).

Table 1
Employment Settings for 1995 Doctorate Recipients From University-Based Clinical Psychology Programs (American Psychological Association, Research Office, 1997a)

Setting	%
Academic	25
Hospital	25
Independent practice	7
Managed care	16
Other human services	14
Business or government	10
Other	3

Nevertheless, nearly 50% of CUDCP program graduates are employed in health care settings, and changes in that marketplace have had profound implications for education and training. Issues of supply and demand have been in the foreground, and I am increasingly concerned about two areas of mismatch in clinical psychology—that within the graduate education pipeline and that of product type to market needs.

Supply and Demand

During the past two years, there has been a mismatch between the number of applicants and the number of available positions in internship programs, with the number of initially unplaced applicants nearly doubling in 1996 and 1997 as compared with previous years. For example, in 1997, there were 404 initially unplaced applicants from APA-accredited programs competing for nine vacancies at APA-accredited internships (APPIC, 1997). Often misnamed an "internship problem," this mismatch has not been due to a loss of internship positions; indeed, the number of internship slots has increased at a rather steady rate over the years, with 1,593 slots in APA-accredited internship programs in 1988–1989 and 2,070 slots available in 1996–1997—an increase of nearly 500 over the past decade—although this growth appears to be leveling out (Lopez, Oehlert, & Wettersten, 1997). The mismatch appears to be due to the fact that there are relatively more students in the educational pipeline requesting entry into internships.

Data about the graduate education component of the pipeline are not exact, but only a handful of new programs have been developed in universities during the past few years and the number of students admitted per year to all CUDCP programs has decreased slightly, from an average of 11.62 per program in 1984 to 9.61 per program in 1996 (CUDCP, 1997; see Figure 1). One interpretation of these data is that the increased number of intern applicants are coming from freestanding professional schools whose goals are to train psychologists primarily as practitioners.

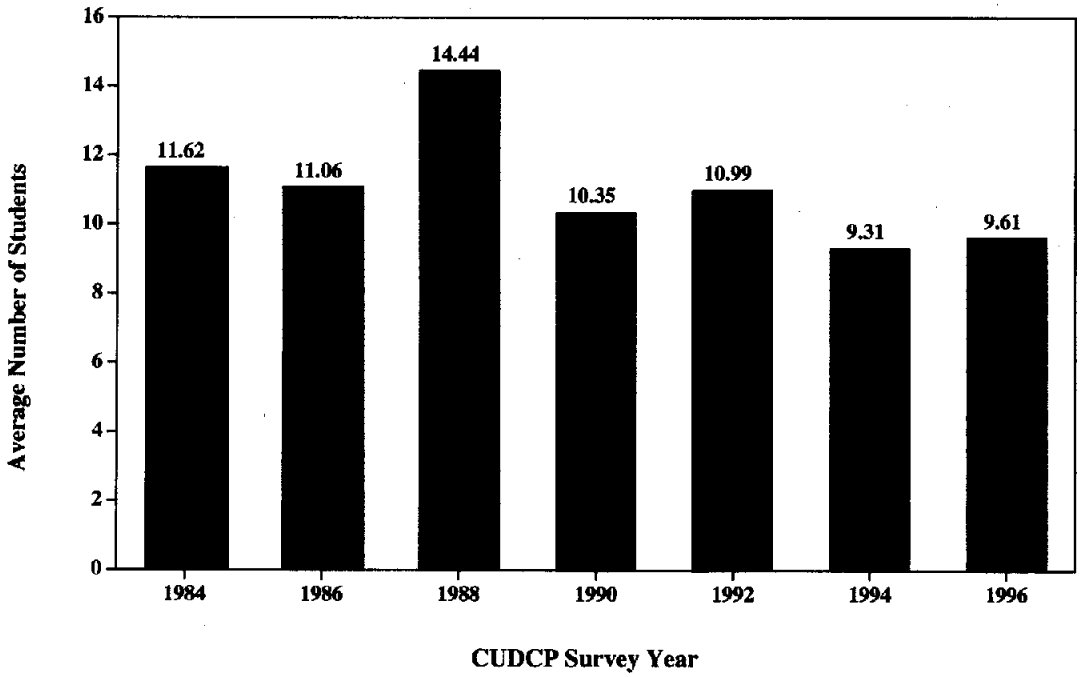
To better understand these issues, there are frequent calls to gather more data concerning supply and demand in educational systems and the marketplace. Given psychology's heritage, we think of data as the Yellow Brick Road that must be followed to find the place where all problems can be solved. For psychology, however, extant data are insufficient to estimate future needs for practitioners. The marketplace itself changes with economic pressures and is changed by the discipline itself through the creation of new knowledge relevant to practice.

For example, Robiner (1991) developed a thoughtful and data-based argument regarding human resource needs in health care, concluding with a call for regulatory control over numbers of practitioners through a reduction in the number of individuals trained. However, his analysis rested on projections for the population's mental health needs, the traditional practice area for clinical psychologists (and the major focus of advocacy for APA at that time). Yet, an expanded scope of practice has existed for years, for example, clinical health psychology (Belar, 1980; Belar & Deardorff, 1995; Millon, Green, & Meagher, 1982; VandenBos, DeLeon, & Belar, 1991). Health psychology was recognized as a specialty in professional practice by the American Board of Professional Psychology in 1991 and by APA in 1997. Somewhat earlier, Sayette and Mayne (1990) found health psychology to be the most frequently reported area of clinical research in APA-accredited clinical psychology doctoral programs. At the beginning of this decade, they described health psychology as having become a central component in both clinical and research training in professional psychology.

Despite these developments in graduate education and training, only recently has psychology begun to present itself as a health care profession rather than a mental health profession. Advocates from the education and training community, especially academic health science centers, were active in promoting this change within APA, but the fruits of sustained advocacy are not yet known. Will psychology become an integrated part of health care, or will it continue to be viewed as part of a mental health carveout? If the latter prevails, psychology will not reach its potential to serve the public welfare.

In considering needs for future practitioners, one must remember that the practice of psychology is very broad, even broader than health care, with many areas still underdeveloped or unexplored. For example, there is forensic psychology, sports psychology, geropsychology, educational psychology, organizational psychology, correctional psychology, and environmental psychology. There are problems concerning human resources, public health and prevention, workplace behavior, juvenile justice systems, media communications, and the design of welfare systems that cry out for expertise in behavioral research and practice. Given the diversity of possible employment settings and job functions, one simply cannot estimate the human resources required to meet all these needs.

Figure 1
Average Number of Students Admitted per Program (CUDCP, 1997)



Note. CUDCP = Council of University Directors of Clinical Psychology.

Responsiveness to Marketplace Changes

Graduate programs and internships are repeatedly challenged to be more sensitive to marketplace changes in the training of practitioners. Indeed, graduate education programs have been in the forefront of education and training for expansion of practice in clinical health psychology. CUDCP programs have also developed courses and experiences in administration, health policy, supervision, minority health issues, short-term treatment, multiculturalism, disaster response, empirically supported treatments, meta-analysis, epidemiology, primary and secondary prevention, program evaluation research, and outcomes assessment. Some programs have instituted practica in program evaluation consultation. Others have increased training in consultation, with a special focus on communication skills with other disciplines (e.g., teachers, nurses, physicians, legislators). Programs offering dual degrees were noted previously. Table 2 provides specific examples of more recent program developments. CUDCP program directors have also stressed the ethical imperative to inform program applicants about the changing marketplace for practice.

Have enough changes been made? I doubt it. As noted before, however, academia has increasingly fewer resources to meet greater demands for curriculum development. And graduate education has not been a high priority, despite the fact that it actually creates the future of the discipline. Even within APA, the Education Directorate receives less funding from APA than the other directorates (Finance Committee, 1997).

An important issue to underscore is that graduate education must find a balance between being market-sensitive and market-driven. There are many industries that are not in the public welfare that have been created and sustained through market demand. Programs could cram curricula full of how-to courses, and perhaps more are needed, but what will be deleted? Graduate education must not train technicians or skilled laborers who have many tools for today's marketplace but will be outdated when the technology shifts. Graduate education must produce a trained intellect. The Wizard of Oz granted the Straw Man a ThD, a doctor of thinkology, perhaps the most valuable degree.

Graduates of professional psychology programs must be capable of solving relevant problems through the integration of research and practice. Remember that 20 years ago, there were no market demands for clinical health psychologists and clinical neuropsychologists. These markets were created by the development of scientific knowledge and its integration with practice. This brings me to the second area of mismatch in psychology, that of product type (program graduate) to market need.

Table 2
Examples of Graduate Program Developments

Example	University
Managed Behavioral Healthcare and the Public Mental Health System (course)	University of Maryland
Brief Psychotherapy Program (training in short-term treatments for those with personality disorders)	New School-Beth Israel
National Institute of Alcohol Abuse and Alcoholism-supported predoctoral training program in addictive behaviors	University of New Mexico
Secondary prevention–early intervention, school-based treatment program for elementary school children with early signs of anger control problems or dysphoria	University of Denver
Disaster mental health track	University of South Dakota
Minor in health services administration	University of Florida
Practicum in program evaluation and consultation in community settings	DePaul University
School in the Cities Program (primary prevention in inner-city schools)	Ohio State University
Development of measures of clinicians' multicultural competence	University of Rhode Island

What Kind of Practitioner Is Needed?

The critical issue concerning supply and demand in professional psychology is related to the nature of the product. What is the most viable product of graduate education and training in professional psychology? What does psychology want to be known for in the marketplace? And is graduate education and training confusing the marketplace about the nature of its product?

It is known that professional schools (both free-standing and university-based) are now granting nearly half of all doctorates in clinical psychology. According to data compiled from the APA Research Office (1997a), nearly half of 1993 clinical psychology doctorates were granted by professional schools (see Table 3). Because over half of these professional school degrees were PhDs, it is assumed that some research training is included. However, the product of graduate education in clinical psychology is increasingly the practitioner rather than the scientist–practitioner, with a greater shift in numbers anticipated in the future.

The increasing imbalance between practitioners trained as consumers of research and practitioners who have demonstrated research skills has concerned me for more than a decade. It is of special concern now that predicted changes in the health care marketplace are coming to fruition. As I have repeatedly opined, I simply do not believe that being a good "consumer of research" will preserve psychology's future in health care. Nor do I believe that training primarily for the independent practice of psychotherapy is appropriate graduate education for psychologists. My concerns are based on my own experiences, particularly the seven years I spent as chief psychologist at Kaiser Permanente in Los Angeles in the 1980s. But then, discussions of educational philosophy are always value- and opinion-driven, as there is no clear scientific evidence to support one model of education and training over another in promoting public welfare.

A positive outcome of changes in the health care system has been the stimulation of interest in clinical research, especially in the development of a body of knowledge related to treatment effectiveness. There is the belief that when sufficient data about the medical cost offset of psychological services are available, professional psychology will be back to business as usual, having been assured a place in the health care delivery system. I disagree with this perspective. The discipline's history is one of giving psychology away. The techniques used by psychologists, including psychometric assessment, are also practiced by members of other disciplines, often at reduced rates. Although practitioners have been in a "golden era" since obtaining access to third-party reimbursement, the growth in traditional private practice cannot be sustained. I believe that in the future, other professions will provide many of the direct services

Table 3
Doctorates in Clinical Psychology, 1993 (American Psychological Association, Research Office, 1997b)

	PhDs		PsyDs		Total	
Site	Number	%	Number	%	Number	%
Professional schools	580	34.6	527	96.9	1,107	49.9
All programs	1,676		544		2,220	

needed and that roles and functions for clinical psychologists will rest more heavily on their ability to integrate science and practice.

For example, at Kaiser Permanente, I heard arguments to reduce hiring of psychologists because "they don't do anything different from what social workers do, but they cost more." In fact, some new graduates I interviewed presented themselves primarily as psychotherapists, having had little to no experience in either the measurement of behavior (assessment) or the conduct of empirical research. Yet, I wanted psychologists who could perform needs assessments, design programs, gather and analyze data, assess cost-effectiveness, measure outcomes, and solve problems using an empirical approach in the context of practice. Developing new knowledge to "design better mousetraps" is critical. And training in measurement and in the collection and analysis of data is crucial to these skills. I continue to assert that "one can no more develop these research skills by discussion, reading, and critique than one can learn how to do psychotherapy by reading, viewing videotapes, and/or role-playing. One must be trained to *conduct* research" (Belar, 1990, p. 81). This training is expensive and time-intensive, as is clinical training. There may be fewer of these psychologists, but if other, less expensive disciplines (or those with master's degrees in psychology) can deliver much of the needed direct services at a high quality, is this not in the public welfare?

At the national level, much of psychology's focus and resource expenditure has been on the evils of managed care, reimbursement for traditional services, and expansion of the scope of practice, especially through prescription privileges. Concerning the latter, there is perhaps little uniqueness for psychology because other disciplines now prescribe (e.g., medicine, nursing) or are online to obtain privileges (e.g., clinical pharmacists). Of course, psychologists can learn to prescribe (psychology students are among the university's brightest), and psychology should always expand its practice to be consistent with its developing knowledge and skill base. However, I do not believe that the focus on prescription privileges should take center stage at the expense of more fundamental issues for the discipline. Sometimes it takes courage to "just say no." Perhaps, like the Lion, psychologists have not yet found theirs.

I would like to re-energize a focus on and support for the unique contributions of psychology to health care—psychologists' skills in the conduct of behavioral research and the integration of that research with practice. I am very concerned that this uniqueness will not be recognized by the marketplace if such differently trained psychologists continue to be produced. The changes in health care delivery are profound; the outcome is not yet known. There are opportunities for new growth as well as obsolescence. Elsewhere, I addressed new challenges and opportunities (Belar, 1989, 1991, 1995). Here, I raise concerns about psychologists becoming expendable if present trends continue. Psychologists' future roles and functions rest heavily on what has been unique to psychology, skills that are a valued part of psychologists' heritage and that ensure their flexibility in the future. In designing and supporting educational systems of the future, it must not be forgotten that "There's no place like home. There's no place like home."

Conclusion

In reviewing the ideas presented here, I realize that they are neither new nor particularly novel. I have stated them in one form or another for more than a decade (Belar, 1980, 1989, 1990), and they are similar to or consistent with the views of accomplished educators such as Ellis (1992). But the pressures on graduate education appear greater than ever, and psychology must organize its priorities if it is to use its resources wisely. I recommend the following. First, psychology should not sanction education and training programs in professional psychology that do not ensure training in the conduct of research and the integration of research and practice. Second, increased resources should be allocated to promote curriculum development using contemporary technologies and program innovations in clinical science and practice. Third, advocacy for psychology as a health profession should highlight research skills as integral to the practicing psychologist. Fourth, graduate education that prepares students for careers in health service provision should have a multidisciplinary base, drawing on social and biological sciences as well as core psychology. Training should occur in settings that foster interaction with other health care professionals. Fifth, in advocacy for professional practice, APA should highlight psychology's uniqueness in the marketplace and the potential this holds for contributions to other disciplines and to the public welfare. Psychology must preserve psychology's uniqueness; the scientist–practitioner model is under extraordinary stress.

In conclusion, Dorothy found that the Land of Oz was a wondrous but dangerous place. All in all, she and her friends spent considerable effort searching for things that they already had: a heart, a brain, courage, and the ability to return home. Psychology has always been a caring profession. And the trained intellect in the use of scientific methods has been a core component of graduate education. I know psychologists have the power to return home. I hope they find the courage to do so.

REFERENCES

American Psychological Association, Committee on Accreditation. (1997). *The annual report of the Committee on Accreditation 1996.* Washington, DC: American Psychological Association.

American Psychological Association, Research Office. (1997a). *Full-time employment settings for 1995 doctorate recipients from university-based clinical psychology programs.* Washington, DC: American Psychological Association.

American Psychological Association, Research Office. (1997b). *Numbers and percentages of PhDs and PsyDs awarded in psychology by*

professional schools of psychology: 1993. Washington, DC: American Psychological Association.
Association of Psychology Postdoctoral and Internship Centers. (1997). *APPIC clearinghouse data from 1986–1997.* Washington, DC: Author.
Belar, C. D. (1980). Training the clinical psychology student in behavioral medicine. *Professional Psychology, 11,* 620–627.
Belar, C. D. (1989). Opportunities for psychologists in health maintenance organizations: Implications for graduate education and training. *Professional Psychology: Research and Practice, 20,* 390–394.
Belar, C. D. (1990). Continued integration of scientific and practitioner graduate education in psychology. In L. Bickman & H. Ellis (Eds.), *Preparing psychologists for the 21st century: Proceedings of the National Conference on Graduate Education in Psychology* (pp. 77–85). Hillsdale, NJ: Erlbaum.
Belar, C. D. (1991). Behavioral medicine. In C. S. Austad & W. H. Berman (Eds.), *Psychotherapy in managed health care* (pp. 65–79). Washington, DC: American Psychological Association.
Belar, C. D. (1995). Collaboration in capitated care: Challenges for psychology. *Professional Psychology: Research and Practice, 26,* 139–146.
Belar, C. D., Bieliauskas, L. A., Klepac, R. K., Larsen, K. G., Stigall, T. T., & Zimet, C. N. (1993). National Conference on Postdoctoral Training in Professional Psychology. *American Psychologist, 48,* 1284–1289.
Belar, C. D., Bieliauskas, L. A., Larsen, K., Mensh, I., Poey, K., & Roehlke, H. (1989). The National Conference on Internship Training in Psychology. *American Psychologist, 44,* 60–65.
Belar, C. D., & Deardorff, W. W. (1995). *Clinical health psychology in medical settings: A practitioner's guidebook* (Rev. ed.). Washington, DC: American Psychological Association.
Bernal, M. E., & Castro, F. G. (1994). Are clinical psychologists prepared for service and research with ethnic minorities? Report of a decade of progress. *American Psychologist, 49,* 797–805.
Committee on Science, Engineering, and Public Policy. (1995). *Reshaping graduate education of scientists and engineers.* Washington, DC: National Academy Press.
Council of Graduate Schools. (1997). *1995 CGS/GRE survey of graduate enrollment.* Washington, DC: Author.
Council of University Directors of Clinical Psychology. (1995). *Bylaws of the Council of University Directors of Clinical Psychology.* Washington, DC: Author.
Council of University Directors of Clinical Psychology. (1997). *Biennial survey of clinical psychology program directors: 1996–97.* Washington, DC: Author.
Dolezal-Wood, S., Belar, C. D., & Snibbe, J. (1998). A comparison of computer-assisted psychotherapy and cognitive–behavioral therapy in groups. *Journal of Clinical Psychology in Medical Settings, 5,* 103–115.
Ellis, H. E. (1992). Graduate education in psychology: Past, present, and future. *American Psychologist, 47,* 570–576.
Finance Committee. (1997). *Proposed 1998 Preliminary Budget. Report to the Council of Representatives of the American Psychological Association.* Washington, DC: American Psychological Association.
Hall, C. C. I. (1997). Cultural malpractice: The growing obsolescence of psychology with the changing U.S. population. *American Psychologist, 52,* 642–651.
Holbrook, K. (1997). The climate of change: An analysis of the external environment. In Strategic Planning Committee of the Graduate School of the University of Florida (Eds.), *Responsive leadership for tomorrow: Graduate education in Florida* (pp. 40–52). Gainesville: University of Florida.
Lopez, S. J., Oehlert, M. E., & Wettersten, K. B. (1997). Trends in the supply of and competition for APA-accredited internships: 1988–1997. *APPIC Newsletter, 22*(1), 6.
Masey, W. F., & Goldman, G. A. (1995). *The production and utilization of science and engineering doctorates in the United States.* Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, Educational Resources Information Center.
Millon, T., Green, C. J., & Meagher, R. B. (Eds.). (1982). *Handbook of clinical health psychology.* New York: Plenum Press.
Nelson, C., & Berube, M. (1994, March 23). Graduate education is losing its moral base. *Chronicle of Higher Education,* p. B1(3).
Robiner, W. N. (1991). How many psychologists are needed? A call for a national psychology human resource agenda. *Professional Psychology: Research and Practice, 22,* 427–440.
Sayette, M. A., & Mayne, T. J. (1990). Survey of current clinical research trends in clinical psychology. *American Psychologist, 45,* 1263–1266.
VandenBos, G. R., DeLeon, P. H., & Belar, C. D. (1991). How many psychological practitioners are needed? It's too early to know! *Professional Psychology: Research and Practice, 22,* 441–448.
Wulf, W. A. (1995, Summer). Warning: Information technology will transform the university. *Issues in Science and Technology,* 46–52.