

Training Models in Counseling Psychology: Scientist-Practitioner Versus Practitioner-Scholar

Cal D. Stoltenberg

Terry M. Pace

University of Oklahoma

Susan Kashubeck-West

Texas Tech University

Joan L. Biever

Our Lady of the Lake University

Terence Patterson

University of San Francisco

I. David Welch

Gannon University

Considerable discussion has occurred through the years regarding models of training. With the recent accreditation of counseling psychology programs espousing the practitioner-scholar model, the importance of reexamining the merits of this as well as the traditional scientist-practitioner is now very important for the future of the field. This article consists of two positions: One pro practitioner-scholar and the other pro scientist-practitioner and con practitioner-scholar. The first position (first part of the article) by Biever, Patterson, and Welch argues for inclusion of the practitioner-scholar model as an alternative for training in counseling psychology. The second position (in the second part of the article) by Stoltenberg, Pace, and Kashubeck reviews concerns with two competing models. These authors conclude that the scientist-practitioner model is a better fit for training in counseling psychology. Recommendations for training within models are presented.

The history of counseling psychology has been one of examining and reexamining the utility of the integration of science and practice. Our initial identity was established at the Northwestern conference in 1951 (American Psychological Association [APA], 1952) and refined at the Greyston conference (Thompson & Super, 1964). Many of the same issues explored at these early conferences were revisited at the Georgia conference (Meara et al., 1988). Support for the scientist-practitioner training model has remained consistent across these conferences. As most psychologists know, the Boulder conference (Raimy, 1950) previously had endorsed the scientist-practitioner

Correspondence concerning this article and requests for reprints should be addressed to Cal D. Stoltenberg, Department of Educational Psychology, University of Oklahoma, 820 Van Vleet Oval, Norman, OK 73019; e-mail: cstoltenberg@ou.edu.

THE COUNSELING PSYCHOLOGIST, Vol. 28 No. 5, September 2000 622-640

© 2000 by the Division of Counseling Psychology.

622

model in clinical psychology. Together, these conferences and the resulting commitment of both counseling and clinical psychology to adopt models of training grounded in the traditions and values of science set the stage for the dramatic development of our specialties during the past 50 years.

The Vail conference (Korman, 1973) on patterns of professional training in psychology supported the practitioner model as an alternative training model and suggested the doctorate of psychology (Psy.D.) as the appropriate degree for that model. Clinical psychologists rapidly adopted this model. Counseling psychologists, however, have resisted adopting the practitioner model. As Meara and colleagues (1988) note, "All students need to be trained in a Scientist-Practitioner model" (p. 368). They went on to describe the scientist-practitioner model as "an integrated approach to knowledge" (p. 368).

In 1995, the first two practitioner-scholar model (Psy.D.) counseling psychology programs were accredited by APA (at University of Northern Colorado and Our Lady of the Lake University). Later, the University of San Francisco, already accredited to offer the doctorate of education (Ed.D.), switched to offering the Psy.D. This was a milestone for counseling psychology. This article is based in part on a Council for Counseling Psychology Training Programs conference presentation in La Jolla, California in 1996 (Stoltenberg, Kashubeck, Pace, & Arbona, 1997). It retains some of the earlier debate format in its organization into two sections. The first presents a case for practitioner-scholar programs in counseling psychology; the second presents a case for retaining the scientist-practitioner model as the only recognized model. The fact that we "agree to disagree" and therefore do not attempt a resolution in this article accurately characterizes the current status of this training model debate within counseling psychology as we enter the next century.

THE PRACTITIONER-SCHOLAR MODEL IN COUNSELING PSYCHOLOGY: A MATTER OF EMPHASIS

The scientist-practitioner model has been the basis for important advances in our specialty, and its continued viability will be essential if our specialty is to continue developing its scholarly foundations. Nevertheless, there are circumstances and purposes for which the practitioner-scholar model should be considered for training in counseling psychology. The practitioner-scholar model offers one alternative of how the dual concerns of practice and science might be balanced.

McConnell (1984) noted that professional training programs were not intended to replace scientist-professional training; rather, "The Vail Conference said that psychologists should be trained as thoroughly as possible for

that they are to do—whether this be research or practice—and not what others wish they would do” (p. 366).

The Continuum of Training

In February 2000, the first ever meeting of the four doctoral training councils was convened in Miami Beach, Florida. The Council of Counseling Psychology Training Programs (CCPTP), Council of Directors of School Psychology Programs (CDSPP), Council of University Directors of Clinical Psychology (CUDCP), and the National Council of Schools and Programs of Professional Psychology (NCSPPP) met at the conference titled *Creating Our Future: Doctoral Level Education of Clinical, Counseling, and School Psychologists*. The purpose of the conference was stated as “coming together clarifying similarities and differences, and planning and advocating for the doctoral level education of psychologists in the 21st Century.” Clara Hill summarized the joint session on Educational Goals and Objectives in describing the range of training models in doctoral level training. “There was . . . a range on the science-practice continuum with some programs emphasizing science more (particularly in clinical and counseling programs) and some emphasizing the practice of psychology (particularly professional and school psychology programs)” (ccptp@lsv.uky.edu). Within the counseling psychology specialty, the continuum of training appears to occupy a middle ground with a more narrow range of alternatives. The range appears to encompass scientist-practitioner, practitioner-scientist, and practitioner-scholar models with no identified program with a purely scientist or purely practitioner focus. As Hill phrases it, “All programs . . . seemed to integrate science and practice at least to some degree” (ccptp@lsv.uky.edu). The development and ultimate accreditation of two Psy.D. programs in counseling psychology recognize both the need and acceptance of an alternative training model in counseling psychology. Whereas the Psy.D. degree is the clearest recognition of a greater emphasis on practitioner training, it is not the degree itself but its stated training model that defines the relative weight given in a particular program to science or practice. Thus, there are Ph.D. programs that also place relatively more emphasis on practitioner skills than on research skills (the program at Gannon University, for example, is a Ph.D.).

Institutional Context

Practitioner-scholar programs in counseling psychology tend to be more like scientist-practitioner model programs than practitioner models housed in free-standing professional schools. For example, they admit relatively few students, and their faculties are primarily academicians who are committed

both to practice and to the advancement of knowledge. These programs are more likely to possess the standards and resources generally attributable to universities. But at the same time, universities are not all alike, and institutional context has strong effects on the nature of training programs.

Counseling psychology programs traditionally have been housed in large research universities (Meara et al., 1988). This seems to be an important factor in perpetuating the hegemony of the scientist-practitioner model. This institutional setting demands tenure and promotion policies that tend to emphasize faculty competence in research and publication but give little credit for clinical expertise and experience. One consequence is that senior faculty generally have spent most of their time and energy on scientific rather than practice pursuits.

Practitioner-scholar model programs can require less extensive research productivity and therefore can be housed in universities that are smaller and/or that place greater emphasis on teaching. These smaller universities are more likely to use faculty tenure and promotion criteria that emphasize licensing and other practitioner credentials (e.g., licensing, National Register of Health Service Providers; Diplomate-American Board of Counseling Psychology). Faculty with such achievements serve as important role models for students enrolled in the doctoral program emphasizing practice.

Selecting and Training Practitioners

Programs within research universities place a premium on research skills. As a consequence, applicants typically are screened using traditional measures of academic aptitude, such as the Graduate Record Examination (GRE). Average student scores on these measures often serve as a measure of the prestige of these programs.

In practitioner-scholar programs, students are not expected to become research scientists, and therefore, admission criteria may focus on suitability for practice rather than an aptitude for research, mathematical, or statistical skills. In fact, observers have asserted that GRE scores and other measures of academic aptitude have virtually no demonstrated relationship with postdegree professional behavior. Moreover, there are some data to suggest that eliminating GRE score cutoffs as a selection criterion does not affect quality of students in a practitioner-oriented human services program (in this case, social work).

Although there is variability across counseling psychology programs with respect to whether programs admit applicants with bachelor's or master's degrees, the three practitioner-scholar programs in counseling psychology described in this article are uniform in requiring applicants to have a master's in psychology or a related field. This eliminates the need to include most

beginning-level practice and theory courses in the doctoral curriculum. It also permits the inclusion of courses that increase both the depth and the breadth of practitioner training. For example, at Our Lady of the Lake University, master's-level courses in counseling theories, psychopathology, tests and measurements, and group therapy are prerequisites for doctoral-level courses in these areas. Individual students who do not have specific prerequisite courses are required to take them, but the credits do not apply to the doctoral program. At the University of Northern Colorado, the University of San Francisco, and Gannon University, students are given credit for work completed in their master's program. But in all cases, these practitioner programs require students to take doctoral-level courses in the psychological foundation areas stipulated in the APA (2000) accreditation guidelines.

Because students enter the program with basic clinical knowledge, doctoral practicum training in psychotherapy and assessment can be tailored to expanding the knowledge and skills in applied practice settings. Time which otherwise may have been spent on the development of basic skills can be directed toward integrating theory and practice under the direct supervision and training of full-time core faculty members.

The practitioner-scholar program provides training emphasizing supervised practica in the areas of individual, group, and marriage and family therapy. Practica may also include child and adolescent therapy, depending on the emphasis of a particular program and availability of faculty and resources. Training in supervision, consultation, and program evaluation are also closely integrated into the curriculum. It is important to note that these training areas are a matter of emphasis in practitioner-scholar programs rather than a significant departure from the scientist-practitioner model.

Science, Research, and Practice

As Peterson (1976) noted, professionals are differentiated from skilled technicians by their commitment to both practice and science. Professional training programs can provide students with information, teach them methods, and encourage them to remain active learners.

Belar and Perry (1992) reported that the delegates to the 1990 National Conference on Scientist-Practitioner Education and Training for the Professional Practice of Psychology "repeatedly emphasized that interlocking skills in science and practice were the foundation for generating the knowledge base and application to practice that psychology required in order to continue to develop and contribute to human welfare" (p. 71). They further stated that the practitioner-scholar model was "ideal for psychologists who wish to use scientific methods in the conduct of professional practice" (p. 71).

Within the practitioner-scholar model of training in counseling psychology, scientific training is integrated into the practice training component. Scientific activities are in the service of practice. Although this differs from traditional training in scientist-practitioner programs, such integration is crucial for all programs. Indeed, the description of scientific training provided by Meara et al. (1988) in their report on scientist-practitioner training stated:

The model emphasizes systematic and thoughtful analysis of human experiences and judicious application of the knowledge and attitudes gained from such analyses. An attitude of scholarly inquiry is critical to all the activities of those educated in the Scientist-Practitioner model. (p. 368)

This definition is sufficiently broad to describe the scholar component of practitioner-scholar model programs as well. Galassi and Brooks (1992) have argued that

many of the cognitive activities of science and practice are quite similar. Both involve the use of theory (or assumptions about human functioning), previous literature, and critical thinking to facilitate case conceptualization. Both involve the formulation of hypotheses, explanations or predictions of behavior, however implicit. . . . One could argue that responsible and effective practice is impossible in the absence of these cognitive activities. (p. 59)

Galassi and Brooks (1992) stated that the major difference between science and practice is “how systematically and with what degree of control these activities are carried out” (p. 59). It could be argued that comprehensive practice is analogous to empirical science; both require data gathering, hypothesis testing, control of variables, and outcome evaluation.

In short, two major differences between the scientist-practitioner model and the practitioner-scholar model concern the relative emphasis given to practice and science and the extent to which the research is anchored in practice. Whereas both models seek to ground all training in scientific thinking, they may differ in the methods, topics, and desired outcomes of actual research practice. The practitioner-scholar approach to research is more directed by clinically immediate practice concerns, and the topics, populations, methods, and measures might all be rather different from research housed in a scientist-practitioner program. Practitioner-scholar dissertations, for example, might focus more on $N = 1$ or small N designs, qualitative methods, or program evaluation. Scientist-practitioner research is more likely to emphasize large N designs and quantitative methods that do not often readily lend themselves to research outcomes that are of direct interest to practitioners.

Research training in current APA-accredited practitioner-scholar programs culminates in a formal dissertation, with the selection of topics geared toward the practical applications of counseling psychology. The research questions themselves may differentiate dissertations in scientist-practitioner programs from those in practitioner-scholar programs. A practitioner-scholar program, for example, might emphasize and model early and continuous involvement in the direct delivery of psychological services in a widening array of treatment modalities under the supervision of professionally active core faculty. A research component would be integrated into practice activities, with the sequential increase in training primarily involving the practice elements of the program. Theory and skills training in assessment, consultation, and research are grounded directly in service delivery. The ability to conduct research in applied settings would be emphasized. The scientist-practitioner, in contrast, tends to model early and continuous involvement in research agendas sponsored by faculty.

Hoshmand and Polkinghorne (1992) argue that to separate science and practice is artificial; a derivation of the positivist movement in scientific psychology. They proposed that practice can be as legitimate a source of knowledge as academic research. Phillips (1993) noted that considering only traditional scientific methods (experimental and objective modes of theory testing) as legitimate methods of inquiry results in "a one-way relationship between science and practice, with practitioners being assigned a secondary role as appliers rather than contributors of knowledge" (p. 29). Phillips (1993) further warned that as long as science is narrowly defined, researchers will "tend to confine themselves to a limited class of problems, using research approaches that are not well suited to the examination of actual practice problems and the uncertain contexts of practice" (p. 29). The practitioner-scholar model of training is one approach to addressing the concerns Phillips has raised.

Summary and Recommendations

This article has suggested the practitioner-scholar model as a viable alternative model for counseling psychology students whose primary career aspiration is professional practice. This model incorporates the attitudes and methods of science and allows for the direct transfer of a variety of skills essential to the practice of counseling psychology. Critical differences between the two models seem to be in the emphasis on practice with scientific foundations, the greater allocation of resources to practice activities, and the availability of core faculty practitioners to actively model a scientific foundation for practice.

The practitioner-scholar model offers five alternatives to traditional scientist-practitioner programs.

The practitioner-scholar model of training

- lends itself to smaller universities,
- provides training in scientific methods that addresses clinically immediate research concerns,
- seeks to address the artificial gap between practice and science,
- provides an alternative for students whose career goals are more highly focused on direct service careers, and
- provides an alternative for evaluating faculty that honors practice achievements and competence.

Recommendation

This changing landscape of needs and expectations leads to a single but global recommendation. It is recommended that programs examine their training goals and those of their students, the types of employment of the majority of their graduates, the need for psychologists in their region and nationally, and adopt a training model that best fits with the goals and needs identified.

COUNSELING PSYCHOLOGY AND THE SCIENTIST-PRACTITIONER MODEL: AN IDENTITY AND LOGICAL MATCH, NOT AN OPTION

We take the position that the scientist-practitioner is “core” to the identity of counseling psychology. Although the Committee on Accreditation has proceeded to accredit programs that identify themselves with this specialty but adhere to another training model, no formal change has occurred in Division 17 to counter the support for scientist-practitioner training espoused by the Georgia conference. It is our grounding in science that has allowed our commitment to human welfare and human service to develop. We believe that without the credibility of our science, our practices would have remained shrouded in mysticism and public skepticism. It would appear that training programs that identify with these alternative models have other specialties with which they can align themselves. The need for counseling psychology to change its model to one that approximates clinical psychology is not apparent. Indeed, such a decision may add to the blurring of distinctions between these specialties.

Informed Consumerism Is Not Adequate

Barlow, Hayes, and Nelson (1984) suggested that being research consumers is one of the ways practitioners can use psychological science. They also noted, unfortunately, that this appears not to have happened. We agree with Barlow and colleagues that the roles of evaluators of services and producers of research are also important. Indeed, how are counseling psychologists to know if their interventions and programs are effective if they are unable to evaluate their services? In addition, who will do the clinically relevant research if those who engage in full-time practice are not involved?

It is doubtful that counseling psychologists can become competent in these roles without being trained in the scientist-practitioner model. The importance of thinking scientifically about problems in practice can, we believe, be best developed in individuals who learn how to conduct relevant research as well as receive exposure to research in the counseling literature.

If students are not trained to conduct research, it will be difficult for them to fully understand and evaluate what published research has to offer them in their practice. We all have seen the graduate student phenomenon of identifying the faults in published research, often complaining about the lack of relevance. This dismissing of the research literature with a naive wave of the hand indicates an undeveloped sense of the breadth of what research has to offer. Without additional training and experience in conducting their own research, we run the risk of leaving our students in this early stage of scientific understanding in which they shun the published literature as irrelevant.

In our own work with graduate students, we find the critical thinking associated with scientific training to be crucial to the development of effective practitioners. Indeed, the scholar runs the risk of believing sufficient facts are known to justify a counseling intervention. It is at times disturbing how the same students who will dismiss the research literature as flawed will so readily embrace an approach espoused by a clinician who has no evidence of efficacy. The scholar as someone who has been taught an extensive literature based on advanced specialized knowledge runs the risk of becoming the newest authority to offer answers and solutions to an uninformed public. As Stricker (1997) argued, such an epistemological position harkens back to the pre-Enlightenment rule of authority versus the rule of critical inquiry, debate and proof as espoused by science. We believe that this argument cuts to the heart of the logical flaws in the practitioner-scholar model. This model purports to training practitioners who are only able to draw on an authoritative knowledge base. Even if this knowledge base includes scientifically based research findings, the practitioner-scholar who lacks a depth and process appreciation of science can only accept or dismiss research results based on limited analytical abilities. Thus, the authority to which they become tied may simply be that of their own experi-

ence or that of their most influential teachers, or even worse, of the most charismatic and aggressive salesperson on the practitioner continuing-education-seminar circuit.

As opposed to the authority-grounded practitioner-scholar, the scientist-practitioner is trained to identify a problem, gather relevant data, formulate hypotheses, and test these hypotheses in a systematic manner. In addition, science is an ultimately social process in which the individual's experiences and beliefs are evaluated both logically and empirically by the review of other scientists (i.e., the peer review process). It is our belief that advanced training as a scientist is the best known method for encouraging the development of humility and carefulness of thought. Science recognizes an epistemology based on the appreciation and respect for human limits. Acting alone or even in groups as authoritative scholars, we increase our risk to form beliefs and carry out actions based on any number of logical fallacies, including self-serving biases and cognitive short-cuts. The literature on social cognition and clinical decision making provides ample illustration of our ability to be wrong while believing we are right (Gambrill, 1990; Garb, 1998; Nezu & Nezu, 1995).

The recent dispute over the effectiveness of eye movement desensitization and reprocessing (EMDR) and its lack of objective empirical support is an example of this danger (see Rosen & Lohr, 1997, for a complete listing of these studies). We see this as supportive of the importance of scientific scrutiny in clinical practice. Here, knowledge of the intervention (scholar) is, apparently, not sufficient to allow one to critically evaluate it. One must take a scientific approach to evaluate effectiveness beyond the promotional hype, or we risk becoming disciples of the most recent fad rather than systematically studying the counseling process. For example, EMDR has recently been listed as a "probably efficacious treatment" for civilian post-traumatic stress disorder (Chambless et al., 1998), although there is no evidence that it is superior to the established approaches upon which it relies for its methods (see Rosen & Lohr, 1997, for a listing of relevant studies). Thus, adding benign techniques to established treatments does not constitute a new effective treatment.

Based on all these considerations, we argue that the scientist role is as important in the moment-by-moment process of clinical activity as it is in conducting controlled empirical studies. Without this self-correcting influence, we run the risk of accepting the idiosyncratic experience of others (or our own) as generalizable fact. Similarly, Claiborn's (1987) review of Pepinsky's work noted the importance of applying scientific thinking to practice. Observation, inference, formulating and evaluating hypotheses, and selecting and evaluating interventions are all processes characteristic of scientific thinking and competent practice. We believe that training in scientific

epistemology and method, in addition to empirical research, is imperative in preparing practitioners for the highest level of clinical practice. This position is supported by the literature on clinical decision making and the cognitive limitations inherent in even expert knowledge (Corliss, 1995; Gambrill, 1990; Garb, 1998; Nezu & Nezu, 1995; Seidenstucker & Roth, 1998).

We should note that our support of the scientist-practitioner model in counseling psychology can be viewed as consistent across paradigms currently seen as guiding research or inquiry. Indeed, Guber and Lincoln (1996) have argued that quantitative and qualitative research methods are important for critical theory and constructivism as well as positivism and postpositivism. Thus, adherence to a particular paradigm does not limit the importance of research or inquiry, although it will affect how it is conducted and the interpretation of results.

Mistakes Have Been Made

All too often in our training programs and in the field of practice, science and research are equated with published empirical articles. This is, of course, an important role of science. It is not, however, the most important meaning of science or the primary role of training doctoral students in counseling psychology in the scientist-practitioner model. As we have previously argued in this article, thinking scientifically is the most important part of this training and the mechanism that will have the greatest impact on one's professional competence. Raimy (1950), Stricker (1997), and Popper (1962), among others, have argued that the core of science is an epistemology or approach to knowledge that accounts for many of the inherent biases in human thought. Science extends beyond any specific set of theories, research methods, studies, or data sets and guides an approach to thinking and living. It is this broad view of science that is most important to teach and understand for our approach to the scientist-practitioner model. In addition, we realize that social-cognitive and developmental models of research (e.g., Klaczynski & Narasimham, 1998; Kuhn, Amsel, & O'Laughlin, 1988) need to be extended to the study of training in counseling psychology and to clinical decision making.

In our view, most of our training programs can be faulted for paying inadequate attention to the breadth of influence science can have on practice. Instead, we may, intentionally or not, communicate to our students and others that conducting controlled quantitative studies and publishing the results in peer-reviewed journals is the primary function of scientific training. Indeed, we have noted with considerable concern the tendency for training programs to suggest, directly or indirectly, that one is trained as a scientist by the faculty and trained as a practitioner by field supervisors. Thus, the scientist-practitioner

model is, supposedly, operationalized by exposing students to both roles (seen as distinct) in the person of individuals performing specialized functions. It is of little wonder that students, who are primarily headed for applied positions, may not develop an integrated understanding of what it means to be a scientist-practitioner and, seeing more immediate relevance to the practitioner emphasis, lose sight of or dismiss the value of the scientist role.

Others have discussed in detail the roles of science in counseling and the importance of using a breadth of approaches to controlled inquiry (see Heppner, Kivlighan, & Wampold, 1998, for a discussion). In our experience, presenting and conducting isolated studies, seen as irrelevant to practice by our students, perpetuates this problem. Requiring students to conduct research from a particular methodological perspective that they understand to be inconsistent with the demands of a clinical setting will do little to encourage subsequent research efforts. Similarly, hearing from practitioners in the field that there is no time or funding for research reduces its perceived importance. Again, many of these problems can be attributed to the narrow view of research as only occurring in studies using a randomized experimental design. The process of scientific thinking as well as of conducting relevant research with a variety of methods on our own practice is central to our effectiveness in all our roles as counseling psychologists.

We think that some of the difficulties encountered with conveying the utility of the scientist-practitioner model to students is a function of faculty and affiliated field supervisors falling short of the level of integration we hope for our students. Science and practice are too often presented separately, and the integration is lacking. As Heppner and Anderson (1985) have noted, the scientist-practitioner schism is perpetuated by the poor use of research in many practica and internships. It is inexcusable if our students have limited (or no) role models demonstrating how science and practice inform each other and enable the development of competencies.

Practitioner Models

As we previously noted, it appears that published research is not an important source of information on clinical issues for practitioners (Barlow et al., 1984). Indeed, the task force report to Division 12 (Chambless, 1993), which was conducted in part to survey programs regarding the teaching of empirically validated approaches, noted that some APA-approved clinical-training programs provided no course work or clinical supervision in any of the methods compiled by the report. In addition, more than a fifth of the programs did not address nearly 75% of the treatment methods listed by the task force. Thus, it appears that for at least some training programs, not even the faculty view research as an important source of information regarding practice.

A view presented by proponents of the practitioner model is that the bulk of clinical issues addressed by practitioners are too complex or confusing for research-based treatments to be useful (Schön, 1983). Most of us would probably agree that the idiosyncrasies of particular clients and their problems are not always amenable to a simple application of a manualized treatment approach. However, this can serve as an excuse to rely primarily on clinical judgment or authoritative prescriptions. Relevant research findings and critical case-specific analysis of empirically supported common factor process variables and careful evaluation of outcomes should be emphasized.

Wilson (1995) and Barlow (1994) argued that a significant number of clients and clinical issues have been shown to be responsive to specific treatments (e.g., anxiety disorders and depression, two of the most common reasons people seek counseling). In addition, empirical support has been built for the efficacy of a range of treatments of specific types of problems for both children and adults (Hibbs & Jensen, 1996; Nathan & Gorman, 1998). Ignoring this research in favor of clinical lore or a reliance on professional experience is risky and, we would maintain, unethical. This is particularly true as the research is mixed regarding the superiority of experienced therapists versus less experienced ones (Burns & Nolen-Hoeksema, 1992; Christensen & Jacobson, 1994).

An early impetus for the development of professional schools and the practitioner model was to bring the practitioner perspective into contact with scientists to influence the kind of research being conducted. According to Cummings (1996), who was a driving force in the movement, this goal was not achieved and the opposite effect occurred. Rather than researchers and practitioners working together under one roof, practitioners have dominated and worked to protect the status quo. This has resulted, according to Cummings, in training independent practitioners who are attracted to the lifestyle of the professional, rather than to ideals of developing and advancing knowledge in a critical systematic and public way to provide the most effective and safe services for clients. Cummings now argues that the Psy.D. is little more than an excuse to have doctoral-level practitioners.

Indeed, with the increasing requirements for licensed professional counselors, one is left to wonder what separates doctoral-level practitioners from experienced master's-level practitioners, other than the rapidly diminishing ability to demand higher fees. We are convinced that scientific training and thinking as a scientist in practice is a true difference, but this is only achieved through scientist-practitioner training.

Implications of Health Care Reform

Changes in the economic environment are having a profound affect on graduate training in psychology and related professions (Stoltenberg, McNeill, & Delworth, 1998). Funding for program-affiliated training clinics as well as internships is being affected, often negatively, by guidelines for payment instituted by managed care organizations. The downward pressure on fees for service exerted by capitation policies tend to favor the least-expensive provider. The recent focus by the field of professional psychology on increased specialization is contrary to the movement in other areas of health care in which generalist medical personnel are valued for their ability to provide primary care to a large range of patients.

We believe that scientist-practitioner training at the doctoral level in counseling psychology provides our students with the largest range of skills and greatest opportunity for being important players in the future of professional psychology. Training that prepares one to conduct clinical and evaluation research, develop interventions and programs based on the most current knowledge, and supervise other professionals from an informed perspective are likely to remain valued professional roles.

Implications for Improved Scientist-Practitioner Training

Quality scientist-practitioner programs are very difficult to develop and operate successfully. They require extensive faculty and support resources, including training clinics and research facilities. These needs result in many institutional compromises that create disintegration between science and practice resources and locations. Many institutions are unable to operate comprehensive training clinics or lack related research support facilities.

Faculty roles and departmental and/or university support are also critical factors in the implementation of scientist-practitioner training programs in counseling psychology. Faculty roles are necessarily labor intensive and involve extensive teaching, supervision, advising, and mentoring activities. It is desirable for most core counseling psychology faculty to be able to integrate their research, teaching, and clinical practice activities in ways that allow students to personally interact and observe faculty functioning across these roles.

We believe that the scientist-practitioner model has implications for women, students of color, and students of diverse backgrounds. Rather than relying on "clinical lore," which is often based on work with White middle-class clients, the scientist-practitioner model should encourage a hypothesis-based approach to working with clients from diverse backgrounds and rely on

relevant literatures. Support of the unique needs of each student should be a commitment of all training programs in counseling psychology. Such support should be especially sensitive to the needs of students of color or students with other recognized or salient sources of diversity. It seems to us that the integrated scientist-practitioner model with which we are advocating for significant core faculty involvement in all aspects of student training should be conducive to support and mentoring for students of diverse backgrounds. It also seems to us that students of color or other diverse backgrounds who may have experienced the injustice and irresponsibility of overgeneralization, ignorance, and unchallenged bias through prejudice and racism would be very respectful of and responsive to a model that advocates for critical and progressive thinking and empirical accountability for beliefs and actions.

Listed below are a core set of recommendations that we believe to be most supportive of training students to function in an integrative way as scientist-practitioners in all their professional roles.

Recommendations for Scientist-Practitioner Training

1. Students should be formally taught the logic of the scientist-practitioner model across courses and practica focusing on how thinking scientifically allows for innovation and progress both in the formal building of reliable knowledge bases and in establishing effectiveness with specific clients in counseling and assessment services.
2. Research training and clinical practica should be integrated across the full length of students' programs.
3. Programs should require and provide for extensive supervised practicum training, provided largely by scientist-practitioner faculty or scientist-practitioner adjuncts.
4. Research and statistical training should consist of formal courses, research-related practica, and individual and collaborative research projects, integrated into the scientist-practitioner program during the full course of training.
5. Faculty should accept methodological diversity when diverse methods allow for reasonable scientific progress toward increased understanding of a given phenomena or problem of concern.
6. Students should be taught how to review professional and research literature in a critical scientist-practitioner way. Critical focused literature reviews should be required in practica courses for assistance in understanding specific cases or problems, in addition to the more traditional reviews that are often required in core psychology and counseling theory and/or method courses.
7. Students should learn how to conduct $N = 1$ research with their own clients and clinical process–outcome evaluation research.

8. Students should conduct and present critical reviews of empirically validated treatments, which should be adequately taught and used by practica supervisors.
9. Students should also conduct and present critical reviews of new and controversial areas of practice-related research.
10. Finally, core tenure track faculty should be personally involved in all aspects of and settings for training, including practica. We believe that faculty must be able to model integration of scientist-practitioner roles across settings (e.g., clinics, hospitals, labs, classrooms, offices, and conferences).

Conclusion

In this article, we have suggested that the historical significance of the scientist-practitioner model for counseling psychology is based on its utility for the field. In contrast to our practitioner-scholar coauthor colleagues, we think that the present state of flux in professional psychology argues for the continued relevance of the scientist-practitioner model in counseling psychology. Although mistakes have been made in the implementation of the scientist-practitioner model, those mistakes are correctable and do not invalidate or weaken the value and utility of the model. Recommendations that we have proposed should be considered in developing and implementing an improved scientist-practitioner model in counseling psychology. Scientific skills and scientific thinking, manifested in developing and evaluating new treatments, supervising other professionals, and creating prevention programming, will allow our students to flexibly adjust to job market demands. Knowing what you can do (and cannot do) and how to show it is effective, will (we believe) become increasingly important. The practitioner model will not be able to prepare students as well for a generalist environment.

There may well be room in the field of professional psychology for both of these competing models, but that does not mean that they are appropriate models for counseling psychology. We can see no convincing argument for a different model for our specialty, although we support the right of other specialties to pursue them.

Counseling psychology has been characterized by its continuous examination of its identity versus clinical psychology and counselor education (see Whitely, 1984, for some of this history). We believe that we now find ourselves in a position of strength concerning who we are and how we do it. Rather than being torn in numerous directions by competing training models, as is clinical psychology, we have retained our scientist-practitioner focus and, as a result, have more of a particular identity. We believe it would be a mistake to abandon a training model that is congruent with our professional values and goals in an attempt to allow for diversity of approaches. Until persuasive evidence is presented that the scientist-practitioner model is inade-

quate or another model is superior, there seems to be little reason to break with our roots and dilute our identity.

SUMMARY AND CONCLUSION

This article presented two differing views of optimal training in counseling psychology: the practitioner-scholar versus the scientist-practitioner models. Proponents of both models highlighted problems with the way the scientist-practitioner model has been operationalized and placed in to practice. The positions differ regarding the appropriate way to deal with these shortcomings. Both agree that there is often an artificial distinction made between training in science and practice. Both highlight the importance of clinically relevant research and the need for faculty to be active and informed practitioners. The practitioner-scholar model argues for more focus on practice in training, as it is more relevant for direct service careers, and the greater allocation of resources to practice activities within the programs. The scientist-practitioner model, as presented here, argues for the need for broadly defined yet clearly articulated scientific method as the basis for training and clinical decision making as well as research. This focus on thinking scientifically should be integrated across the curriculum in research and practical training.

REFERENCES

- American Psychological Association. (2000). *Guidelines and principles for accreditation of programs in professional psychology*. Washington, DC: Author.
- American Psychological Association, Division of Counseling and Guidance, Committee on Counselor Training. (1952). Recommended standards for training counseling psychologists at the doctoral level. *American Psychologist*, 7, 175-181.
- Barlow, D. H. (1994). Psychological interventions in the era of managed competition. *Clinical Psychology*, 1, 109-122.
- Barlow, D. H., Hayes, S. C., & Nelson, R. O. (1984). *The scientist-practitioner*. New York: Pergamon.
- Belar, C. D., & Perry, N. W. (1992). National conference on scientist-practitioner education and training for the professional practice of psychology. *American Psychologist*, 47, 71-75.
- Burns, D. D., & Nolen-Hoeksema, S. (1992). Therapeutic empathy and recovery from depression in cognitive-behavioral therapy: A structural equation model. *Journal of Consulting and Clinical Psychology*, 60, 441-449.
- Chambless, D. (1993). *Task force on promotion and dissemination of psychological procedures*. Unpublished manuscript, Division 12, American Psychological Association.
- Chambless, D. L., Baker, M. J., Baucom, D. H., Beutler, L. E., Calhoun, K. S., Crits-Christoph, P., Daiuto, A., DeRubeis, R., Detweiler, J., Haaga, A. F., Johnson, S. B., McCurry, S., Mueser, K. T., Pope, K. S., Sanderson, W. C., Shoham, V., Stickle, T., Williams, D. A., & Woody, S. R. (1998). Update on empirically validated treatments, II. *The Clinical Psychologist*, 51, 3-16.

- Christensen, A., & Jacobson, N. S. (1994). Who (or what) can do psychotherapy: The status and challenge of nonprofessional therapies. *Psychological Science, 5*, 8-14.
- Claiborn, C. D. (1987). Science and practice: Reconsidering the Pepinskys. *Journal of Counseling and Development, 65*, 286-288.
- Corliss, D. A. (1995). A comprehensive model of clinical decision making. *Journal of the American Optometric Association, 66*, 362-371.
- Cummings, N. (1996). Now we're facing the consequences. *The Scientist-Practitioner, 6*, 9-13.
- Galassi, J. P., & Brooks, L. (1992). Integrating scientist and practitioner training in counseling psychology: Practicum is the key. *Counseling Psychology Quarterly, 5*, 57-65.
- Gambrill, E. (1990). *Critical thinking in clinical practice*. San Francisco: Jossey-Bass.
- Garb, H. N. (1998). *Studying the clinician: Judgment research and psychological assessment*. Washington, DC: American Psychological Association.
- Guber, E., & Lincoln, Y. S. (1996). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. (pp. 105-117). Thousand Oaks, CA: Sage.
- Heppner, P. P., & Anderson, W. P. (1985). On the perceived non-utility of research in counseling. *Journal of Counseling and Development, 63*, 545-547.
- Heppner, P. P., Kivlighan, D. M. Jr., & Wampold, B. E. (1998). *Research design in counseling* (2nd ed). Pacific Grove, CA: Brooks/Cole.
- Hibbs, E. D., & Jensen, P. S. (Eds.). (1996). *Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice*. Washington, DC: American Psychological Association.
- Hoshmand, L. T., & Polkinghorne, D. E. (1992). Redefining the science-practice relationship and professional training. *American Psychologist, 47*, 55-66.
- Klaczynski, P. A., & Narasimham, G. (1998). Development of scientific reasoning biases: Cognitive versus ego-protective explanations. *Developmental Psychology, 34*, 175-187.
- Korman, M. (1973). *Levels and patterns of professional training in psychology: Conference proceedings, Vail, Colorado*. Washington, DC: American Psychological Association.
- Kuhn, D., Amsel, E., & O'Laughlin, M. (1988). *The development of scientific thinking skills*. San Diego: Academic Press.
- McConnell, S. C., (1984). Doctor of psychology degree: From hibernation to reality. *Professional Psychology: Research and Practice, 15*, 362-370.
- Meara, N. M., Schmidt, L. D., Carrington, C. H., Davis, K. L., Dixon, D. N., Fretz, B. R., Myers, R. A., Ridley, C. R., & Suinn, R. M. (1988). Training and accreditation in counseling psychology. *The Counseling Psychologist, 16*, 366-384.
- Nathan, P. E., & Gorman, J. M. (Eds.). (1998). *Treatments that work*. New York: Oxford University Press.
- Nezu, C. M., & Nezu, A. M. (1995). Clinical decision making in everyday practice: The science in the art. *Cognitive and Behavioral Practice, 2*, 5-25.
- Peterson, D. R. (1976). Need for the doctor of psychology degree in professional psychology. *American Psychologist, 31*, 791-798.
- Phillips, B. N. (1993). Challenging the stultifying bonds of tradition: Some philosophical, conceptual, and methodological issues in applying the scientist-practitioner model. *School Counseling Quarterly, 8*, 27-37.
- Popper, C. (1962). *The open society and its enemies*. Princeton, NJ: Princeton University Press.
- Raimy, V. (Ed.). (1950). *Training in clinical psychology*. Englewood Cliffs, NJ: Prentice Hall.
- Rosen, G. M., & Lohr, J. (1997, January-February). Can eye movements cure mental ailments? *Newsletter of the National Council Against Health Fraud, 20*. Retrieved from the World Wide Web on February 10, 1997. Available: <http://www.ncafh.org>.
- Schön, D. A. (1983). *The reflective practitioner*. New York: Basic Books.

- Seidenstucker, G., & Roth, W. L. (1998). Treatment decisions: Types, models and schools. *European Journal of Psychological Assessment, 14*, 2-13.
- Stoltenberg, C. D., Kashubeck, S., Pace, T. M., & Arbona, C. (1997, February). *Counseling psychology and the scientist-practitioner model: An identity, not an option*. Paper presented at the annual meeting of the Council of Counseling Psychology Training Programs Conference, La Jolla, CA.
- Stoltenberg, C. D., McNeill, B. W., & Delworth, U. (1998). *IDM: The integrated developmental model of supervision*. San Francisco: Jossey-Bass.
- Stricker, G. (1997). Are science and practice commensurable? *American Psychologist, 52*, 442-448.
- Thompson, A. S., & Super, D. E. (Eds.). (1964). *The professional preparation of counseling psychologists: Report of the 1964 Greystone conference*. New York: Bureau of Publications, Teachers College, Columbia University.
- Whitely, J. M. (1984). Counseling psychology: A historical perspective. *The Counseling Psychologist, 12*, 3-109.
- Wilson, G. T. (1995). Empirically validated treatments as a basis for clinical practice: Problems and prospects. In S. C. Hayes, V. M. Follette, R. M. Dawes, & K. E. Grady (Eds.), *Scientific standards of psychological practice: Issues and recommendations* (pp. 163-196). Reno, NV: Context.