

# American Psychological Association Recommended Postdoctoral Education and Training Program In Psychopharmacology for Prescriptive Authority

Approved by APA Council of Representatives, 2009

## INTRODUCTION

Education and training in psychopharmacology for prescriptive authority has evolved rapidly over the past two decades. As of the writing of this document, there were approximately 10 programs in a range of educational contexts offering this training on a postdoctoral basis. As more states pass laws authorizing properly trained psychologists to prescribe it will continue to be necessary to define what is meant by “properly trained psychologists.” Psychology’s ethical responsibility to the public requires that the profession be able to define the training needs and minimum competencies required for prescriptive authority. This document reflects the most current thinking in the field as to the nature of such education and training. It incorporates knowledge and experience derived since the 1996 version of this document, *Recommended Postdoctoral Training in Psychopharmacology for Prescription Privileges*, became APA policy.

In accordance with Association Rule 30-8.3 requiring that all APA standards and guidelines be reviewed at least every 10 years, and in light of the advances that have been made in prescriptive authority education and training and legislation enacted since the document *APA Recommended Postdoctoral Training in Psychopharmacology for Prescription Privileges* (1996 Recommended Training) was approved in 1996,<sup>1</sup> the Council of Representatives authorized a joint BEA-CAPP Task Force in February 2006 to review the current program requirements and recommend any necessary updates and revisions.

When the original model program standards were developed over a decade ago, few programs existed and no state legislation, enabling psychologists to prescribe, had been enacted. Since then, a number of new programs have developed operating under varying education and training models, and enabling legislation has been passed in two states and one U.S. territory (with legislation pending or planned in several others). These developments clearly called for revisions of the existing policy.

### *Contextual Framework*

The program described in this document is a postdoctoral experience, which is intended to be an extension of doctoral education and training in psychological practice. Accordingly, the

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<sup>1</sup> The 1996 Recommended Training was based on several earlier documents, including the Department of Defense Psychopharmacology Demonstration Project curriculum, the report of the Blue Ribbon Panel of the Professional Education Task Force of the California Psychological Association, and an initial document prepared by the CAPP Task Force on Prescription Privileges. The final draft of the document was developed by the APA Presidential Working Group and submitted to the APA Council of Representatives.

scientific basis of pharmacology and its application to clinical practices of prescribing must be viewed in the context of the total complex of factors influencing human psychology. Education and training should reflect the integration of research literature and practice experience on the relationship between psychopharmacological and psychological interventions.

Psychopharmacology education and training for psychologists, while building on training traditions in medicine, pharmacy, and nursing, should be conducted in a manner consistent with the education and training of psychologists. These standards are also designed specifically to meet the needs of practicing psychologists and their patients and are intended, in part, as a service to the public by describing the minimum requirements for this training.

#### *Application for Psychologists Matriculating through the 1996 Recommended Training*

A number of programs have emerged that included many, if not most, of the key elements of the 1996 Recommended Training, and many psychologists have completed significant portions of the 1996 Recommended Training through those programs. The revisions found in the present document reflect subsequent advances in learning models and methods of pedagogy, as well as feedback from psychologists who have completed a postdoctoral program in psychopharmacology. Inasmuch as the current document builds on the earlier model, those psychologists who completed programs based on that earlier model can be recognized as meeting the curriculum requirements relevant at the time of their matriculation. To address the needs of those psychologists who completed postdoctoral programs that did not meet all requirements of the 1996 Recommended Training, programs are encouraged to develop policies that would permit, on an individual case basis, the demonstration of competence to meet current program requirements.

#### *Essential Elements*

##### *Postdoctoral Education and Training*

These standards are intended to describe a postdoctoral experience. This program involves advanced training in a specific content area of psychology representing a significant expansion of scope of practice. The prerequisites for admission to a program continue to be (1) a doctoral degree in psychology; (2) current licensure as a psychologist, and (3) practice as a health services provider as defined by state law, where applicable, or as defined by APA. The 1996 Recommended Postdoctoral Training Program includes didactic coursework prerequisites that are included now in these standards in the basic sciences and neurosciences domains of instruction. Training programs in psychopharmacology for prescriptive authority can award transfer credit for no more than twenty percent (20%) of the total curriculum hours. This twenty percent shall be limited to the basic science and neuroscience domains of the curriculum.

These standards include three components that reflect an evolution in instruction and assessment from the 1996 Recommended Training. These include integration of didactic instruction and supervised experience, the incorporation of competence based assessment, and incorporation of a capstone competency.

### *Integrated Didactic Instruction and Supervised Clinical Experience*

Relevant supervised clinical experiences are now integrated into the sequence of courses. These standards allow psychologists to assimilate new knowledge as it is learned through its application.

The revised curriculum integrates supervised clinical experiences with coursework so that as each content area is addressed in the curriculum, supervised clinical experiences relating to the course content are provided to the participant. Supervised clinical experience remains an important aspect of training. By building such experiences into the sequence of didactic coursework, participants will be able to apply the concepts acquired through coursework at the time that is optimal for cementing learning.

The term “supervised clinical experience” is substituted for the term “practicum” used in the 1996 Recommended Training.

### *Addition of Elements of a Competency Model*

The curriculum promotes the integration of knowledge, skills and attitudes fundamental to professional practice with psychopharmacologic interventions. In this context, movement to competency-based models to measure education and training outcomes is occurring across the health professions. These models include both formative (ongoing) and summative (end point) assessment approaches. Various entities within psychology (e.g., the APA Benchmark Competencies Initiative, the APA Policy on Education and Training Leading to Licensure, and the Practicum Working Group on Competencies) are focusing on the identification and assessment of competencies in education and training that have resulted in important changes in how educational outcomes are defined and evaluated. The APA Task Force on the Assessment of Competence in Professional Psychology articulated 15 principles that are a useful resource in this process. By focusing on necessary competencies, these standards are intended to allow maximum flexibility in program design within the parameters of ensuring an optimal educational experience.

### *Capstone Competency Evaluation*

To be consistent with a model that emphasizes the mastery of essential competencies, training programs developed under these standards provide a capstone competency evaluation that requires integration of the knowledge, skills, and attitudes the psychologist is expected to master during their matriculation in the program. Two recommended components of this could be a review of a portfolio of cumulative supervised clinical experiences and the application of the knowledge, skills, and attitudes to unrehearsed clinical situations ranging from routine, uncomplicated cases to those of a more complex nature involving multiple medical comorbidities. This evaluation is distinct from any evaluation that focuses exclusively on mastery of information, such as the Psychopharmacology Examination for Psychologists. The capstone competency evaluation is summative and follows demonstration of mastery of multiple, foundational competencies throughout the training program.

### *Education and Training in Issues of Diversity*

Programs developed under these standards will continue their commitment to providing training courses and experiences that encourage sensitivity to the interactions between pharmacological interventions with development across the lifespan, gender, health status, and ethnicity of patients. This focus is reflected in both the didactic and experiential components of the program so that psychologists will develop the appropriate skill-based competencies to address diversity in the population being served.

### *Designation Process Requirement*

Both the 1996 Recommended Training and these standards are exclusively relevant to the evaluation of programs, not individuals; they are not intended to be used for the evaluation of individuals' qualifications to engage in any activities related to psychopharmacology. The policies do, however, have important implications for determining whether or not individual psychologists have completed an acceptable course of education and training. The shift to an emphasis on skills-based competencies and away from requirements presumed to be suggestive of the mastery of skills (such as the institutional location of the training, the number of hours allotted to each topic, or the type of credential awarded upon the completion of training) implies that it is the development of critical competencies that should decide whether or not the training is adequate. Experiences to date do not provide a convincing rationale for choosing any given training model over others. Furthermore, it seems prudent to encourage the development of viable alternative routes to training competent practitioners at this still early stage in the development of this area of practice.

The shift to include more of a competency-based model, the breadth of formats in which programs may operate, the integration of didactic coursework and supervised clinical experience, and other significant changes in demonstration of competency and methods of assessment of competencies require a mechanism to ensure that programs are providing the recommended education and training outlined in these standards. Therefore, APA will establish a formal designation body that represents psychopharmacology education and training programs, educators, relevant basic scientists, relevant public interests and practitioners to establish processes and procedures to evaluate consistency with these standards that will provide a system for assuring that programs are providing education and training presumed necessary for responsible psychopharmacological practices. Although detailed recommendations for establishing an appropriate designation process were beyond the scope of the task force that developed these standards, such a system is important and the establishment of a designation body is critical to establishing and maintaining minimal standards of program quality.

### *Maintenance of Competencies through Lifelong Learning*

Postdoctoral training programs in psychopharmacology for prescriptive authority are rigorous and comprehensive in didactic content, clinical experiences, and the integration of psychological and pharmacological principles. Programs developed under these standards place a special emphasis on preparing psychologists to evaluate future advances in psychopharmacological knowledge and on the critical importance of lifelong learning in psychopharmacological practice.

## *Summary*

These policies and procedures represent changes inherent in a shift toward a competency-based model of learning and assessment in preparation for prescriptive authority, and are intended to set the context for the understanding of the curriculum as further described in this document. Given the rapid evolution of the field, these standards should be reviewed in five years. This review should include a review of the quality assurance systems.

## **PREREQUISITES FOR ADMISSION TO EDUCATION AND TRAINING PROGRAMS IN PSYCHOPHARMACOLOGY**

To participate in postdoctoral education and training in psychopharmacology, programs must require that psychologists meet the following prerequisites:

1. be a graduate of a doctoral program in psychology;
2. hold a current state license as a psychologist; and
3. practice as a "health services provider" psychologist as defined by state law, where applicable, or as defined by APA.<sup>2</sup>

## **PROGRAM CHARACTERISTICS**

The entire program of education and training should be an organized and sequenced program of instruction at the postdoctoral level.

The program is responsible for determining and disseminating admissions standards. The program could develop policies for allowing credit from a previous graduate or postdoctoral education and training program(s). To ensure that the training experience is up-to-date, sequential, and cumulative, transfer of a limited number of credits as appropriate for previous coursework is not to exceed twenty percent (20%) of the postdoctoral curriculum and is to be limited to the basic science and neuroscience domains (Domains I & II). This does not preclude the development of program policies that would permit, on an individual case basis, the meeting of program requirements through a current demonstration of competence obtained through prior postdoctoral education and training. In such unusual cases, program policies should explicitly state the criteria for such decisions, and there should be an accompanying record of the specific competencies demonstrated by the psychologist and those yet to be acquired through the program.

The program is accountable for establishing and demonstrating evidence of appropriate quality assurance mechanisms. As such, the program will demonstrate the following characteristics:

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<sup>2</sup> In 1995, the APA Council of Representatives approved the following definition of "health service provider" psychologists: Psychologists are recognized as Health Service Providers if they are duly trained and experienced in the delivery of preventive, assessment, diagnostic and therapeutic intervention services relative to the psychological and physical health of consumers based on: 1) having completed scientific and professional training resulting in a doctoral degree in psychology; 2) having completed an internship and supervised experience in health care settings; and 3) having been licensed as psychologists at the independent practice level.

### *Ethical Standards*

The program administrators and faculty will abide by the current Ethical Principles of Psychologists and Code of Conduct of the American Psychological Association.

### *Mission*

The program has a clear and comprehensive mission statement that guides it, is approved by the governing body, and is publicly communicated.

### *Governance & Administration*

The program has sufficient financial resources and access to appropriate physical resources to support its mission.

The program has qualified and competent administrators, including a director, with appropriate administrative authority.

The legal authority and operating control of the program are clearly described.

### *Program Characteristics*

The program is an integrated and organized program of study.

The program has an identifiable body of students.

The program is clearly identified and labeled as a postdoctoral education and training program in psychopharmacology for prescriptive authority.

The program ensures the quality of education and training, including any consortial relationships or contractual agreements.

The program protects the security, confidentiality, integrity, and availability of student records.

The program has due process and grievance procedures.

The program regularly engages in a process of self-evaluation.

The program ensures that students maintain licensure throughout the program.

### *Faculty*

Faculty and supervisors are qualified and sufficient in number to accomplish the program's education and training goals.

In addition to psychology, the program faculty and supervisors may come from a variety of appropriate disciplines. Faculty will participate in the program's planning, implementation and evaluation.

### *Learning Resources*

The program provides access to facilities, services, and learning/information resources that are appropriate to support its didactic and experiential teaching, research, and service mission. This may include access to facilities, library materials, and an appropriate array of learning resources.

Further, the program will offer an integrated and sequential program of instruction as evidenced through the following:

1. An organized sequence of courses with relevant syllabi;
2. Frequent evaluation of students' knowledge and application of that knowledge and feedback to students of outcomes;
3. Periodic program evaluation;
4. Certification of program completion upon demonstration of appropriate level of competence

## **DIDACTIC INSTRUCTION AND SUPERVISED CLINICAL EXPERIENCE**

A competency-based approach entails educational objectives or defined competencies at each level of learning. Competences facilitate demonstration of the ability to perform defined tasks along a continuum with a wide range of possible outcomes. Competencies are conceived as holistic and represent:

- **knowledge** of subject matter concepts and procedures
- **performance** of behaviors that demonstrate specific skills and abilities
- **problem solving** strategies and capabilities that involve elements of critical thinking and ethical responsibility
- **self reflection** that focuses on knowing the limits of one's knowledge; clarification of attitudes, beliefs, and values; and identification of self perceptions and motivations in the context of prescriptive authority.

Assessment of the delineated competencies for prescriptive authority includes approaches that integrate evaluation that is both formative (i.e., ongoing corrective feedback that advises for further development) and summative (i.e., determines attainment of a specific competency). Assessment is developmentally informed and conducted using multiple reliable and valid methods and varied sources of information. This approach shifts the focus from exclusively documenting what is taught to one based on demonstrating what students have learned and how they effectively apply didactic instruction in integrated practice. Throughout the curriculum, students will demonstrate threshold performance levels at identified benchmarks of competence across the delineated competencies.

The topics that should be addressed by the psychopharmacology curriculum must cover a broad range of both basic science and clinical content areas with sufficient specificity such that the

learner is adequately prepared for the practical application of the knowledge and skills attained. All areas should also address cultural context, including variability due to development across the lifespan, gender, health status, and ethnicity. A foundation of knowledge should be laid so that the learner can continually develop an understanding of and ability to use emerging treatments. This foundation should include instruction in the core principles regarding the implementation and evaluation of research on psychoactive substances.

### *Didactic Content Areas*

The approaches taken to the didactic instruction of content should make use of multiple pedagogical methods. In addition to the provision of knowledge via more traditional means such as readings, lecture and discussion, participants may make use of various means for applying, integrating and thereby broadening their knowledge via the analysis of clinical cases, problem based learning, computerized patients and simulations using layered decision models, and skills-based demonstrations throughout the curriculum.

Recognizing that this is a dynamic field and that subsequent revision may become necessary over time, 400 contact hours, at a minimum, of didactic instruction is expected in the following core content areas (I-VIII).

As programs may develop specific courses using different content integration approaches, these are not meant as specific courses and the contact hours are not broken down into each area. The program must demonstrate that all content is covered and that the students achieve clinical competency in all content areas. Italicized content represents examples of some of the clinical competencies that may be associated with the domain of instruction.

#### I. Basic Science

- A. Anatomy & Physiology
- B. Biochemistry

#### II. Neurosciences

- A. Neuroanatomy
- B. Neurophysiology
- C. Neurochemistry

#### III. Physical Assessment and Laboratory Exams

- A. Physical Assessment
- B. Laboratory and Radiological Assessment
- C. Medical Terminology and Documentation

*Integration of A-C through supervised clinical experience or lab experience in conducting physical exam, ordering psychometric and laboratory tests, understanding results and interpretation*

#### IV. Clinical Medicine and Pathophysiology

- A. Pathophysiology with particular emphasis on cardiac, renal, hepatic, neurologic, gastrointestinal, hematologic, dermatologic and endocrine systems.

- B. Clinical Medicine, with particular emphasis on signs, symptoms and treatment of disease states with behavioral, cognitive and emotional manifestations or comorbidities
- C. Differential Diagnosis
- D. Clinical correlations-the illustration of the content of this domain through case study
- E. Substance-Related and Co-Occurring Disorders
- F. Chronic Pain Management

*Integration of A-F through supervised clinical experience or lab experience in taking medical history, assessment for differential diagnosis, and review of systems*

#### V. Clinical and Research Pharmacology and Psychopharmacology

- A. Pharmacology
- B. Clinical Pharmacology
- C. Pharmacogenetics
- D. Psychopharmacology
- E. Developmental Psychopharmacology
- F. Issues of diversity in pharmacological practice (e.g., sex/gender, racial/ethnic, and lifespan factors related to drug metabolism access, acceptance, and adherence)

*Integration of A-F through supervised clinical experience or lab experience in Clinical Medicine and ongoing treatment monitoring and evaluation*

#### VI. Clinical Pharmacotherapeutics

- A. Combined therapies - Psychotherapy/pharmacotherapy interactions
- B. Computer-based aids to practice
- C. Pharmacoepidemiology

*Integration of A-C through supervised clinical experience or lab experience in integrated treatment planning and consultation and implications of treatment*

#### VII. Research

- A. Methodology and Design of psychopharmacological research
- B. Interpretation and Evaluation of research
- C. FDA drug development and other regulatory processes

#### VIII. Professional, Ethical, and Legal Issues

- A. Application of existing law, standards and guidelines to pharmacological practice
- B. Relationships with pharmaceutical industry
  1. Conflict of interest
  2. Evaluation of pharmaceutical marketing practices
  3. Critical consumer

#### *Supervised Clinical Experience*

The supervised clinical experience should be an organized sequence of education and training that provides an integrative approach to learning as well as the opportunity to assess competencies in skills and applied knowledge. The intent of the supervised clinical experience is two-fold:

1. To provide ongoing integration of didactic and applied clinical knowledge throughout the learning sequence, including ample opportunities for practical learning and clinical application of skills.
2. To provide opportunity for programs to assess formative and summative clinical competency in skills and applied knowledge.

In addition to the didactic hours, the number of hours needed to achieve mastery of clinical competencies is expected to be substantial and will vary across individuals.

The supervised clinical experience is intended to be an intensive, closely supervised experience. The range of diagnostic categories, settings and characteristics such as development across the lifespan, gender, health status, and ethnicity reflected in the patients seen in connection with the supervised clinical experience should be appropriate to the current and anticipated practice of the trainee. It should allow the practitioner to gain exposure to acute, short-term, and maintenance medication strategies.

The trainee gains supervised clinical experience with a sufficient range and number of patients in order to demonstrate threshold performance levels for each of the competency areas. In order to achieve the complex clinical competency skills required for independent prescribing, a sufficient number of supervised patient contact hours must be completed. The supervised clinical training experiences must be approved by the training director prior to commencing that placement. The program must document the total number of supervised clinical experience hours that students experience. These must be broken out by face-to-face patient contacts versus other clinical experiences, and the clinical competencies employed.

In addition, the method and appropriate benchmarks for assuring each clinical competency must be described. These methods may include, for example, performing physical examinations and presenting cases based on actual and simulated patients. The trainee recommends/prescribes in consultation with or under a designated supervisor(s) with demonstrated skills and experience in clinical psychopharmacology and in accordance with the prevailing jurisdictional law.

The program is responsible for the approval and oversight of each supervised clinical experience. Final approval of the supervised clinical experience must be provided by the program prior to initiation.

The supervised clinical experience may be integrated into each level of education and training, provided in a final summative practical experience or a combination of both according to the design of the program. The last item in *Domains of Instruction, Sections III-VI*, encompasses areas where clinical experience can be integrated with didactic instruction.

In either event, the trainee must demonstrate competency in his or her ability to integrate didactic learning and applied clinical skill in a capstone competency evaluation.

There is also a responsibility to maintain competency through continuing education over the lifespan of maintaining and practicing in prescriptive authority or collaborative activities with prescribing professionals.

The clinical competencies targeted by this experience include the following:

1. **PHYSICAL EXAM AND MENTAL STATUS**

Knowledge and execution of elements and sequence of both comprehensive and focused physical examination and mental status evaluation, proper use of instruments used in physical examination (e.g., stethoscope, blood pressure measurement devices, etc.), and scope of knowledge gained from physical examination and mental status examination recognizing variation associated with developmental stage and diversity

2. **REVIEW OF SYSTEMS**

Knowledge and ability to systematically describe the process of integrating information learned from patient reports, signs, symptoms, and a review of each of the major body systems recognizing normal developmental variations

3. **MEDICAL HISTORY INTERVIEW AND DOCUMENTATION**

Ability to systematically conduct a patient or parent/caregiver clinical interview producing a patient's medical, surgical, and psychiatric (if any) history and medication history in cultural context as well as a family medical and psychiatric history, and to communicate the findings in written and verbal form

4. **ASSESSMENT: INDICATIONS AND INTERPRETATION**

Ability to order and interpret appropriate tests (e.g., psychometric, laboratory and radiological) for the purpose of making a differential diagnosis and for monitoring therapeutic and adverse effects of treatment

5. **DIFFERENTIAL DIAGNOSIS**

Use of appropriate processes, including established diagnostic criteria (e.g., ICD-9, DSM-IV), to determine primary and alternate diagnoses

6. **INTEGRATED TREATMENT PLANNING**

Ability to identify and select, using all available data, the most appropriate treatment alternatives, including medication, psychosocial and combined treatments and to sequence treatment within the larger biopsychosocial context

7. **CONSULTATION AND COLLABORATION**

Understanding of the parameters of the role of the prescribing psychologist or medical psychologist and working with other professionals in an advisory or collaborative manner to effect treatment of a patient

8. **TREATMENT MANAGEMENT**

Application, monitoring and modification, as needed, of treatments and the writing of valid and complete prescriptions