

Recommended Postdoctoral Education and Training Program In Psychopharmacology for Prescriptive Authority

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 1996,¹ 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 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

¹ 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.

38 and training should reflect the integration of research literature and practice experience on the
39 relationship between psychopharmacological and psychological interventions.

40
41 Psychopharmacology education and training for psychologists, while building on training
42 traditions in medicine, pharmacy, and nursing, should be conducted in a manner consistent with
43 the education and training of psychologists. These standards are also designed specifically to
44 meet the needs of practicing psychologists and their patients and are intended, in part, as a
45 service to the public by describing the minimum requirements for this training.

46
47 *Application for Psychologists Matriculating through the 1996 Recommended Training*

48 A number of programs have emerged that included many, if not most, of the key elements of the
49 1996 Recommended Training, and many psychologists have completed significant portions of
50 the 1996 Recommended Training through those programs. The revisions found in the present
51 document reflect subsequent advances in learning models and methods of pedagogy, as well as
52 feedback from psychologists who have completed a postdoctoral program in
53 psychopharmacology. Inasmuch as the current document builds on the earlier model, those
54 psychologists who completed programs based on that earlier model can be recognized as meeting
55 the curriculum requirements relevant at the time of their matriculation. To address the needs of
56 those psychologists who completed postdoctoral programs that did not meet all requirements of
57 the 1996 Recommended Training, programs are encouraged to develop policies that would
58 permit, on an individual case basis, the demonstration of competence to meet current program
59 requirements.

60 *Essential Elements*

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62 *Postdoctoral Education and Training*

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

74
75 These standards include three components that reflect an evolution in instruction and assessment
76 from the 1996 Recommended Training. These include integration of didactic instruction and
77 supervised experience, the incorporation of competence based assessment, and incorporation of a
78 capstone competency.

80 *Integrated Didactic Instruction and Supervised Clinical Experience*

81

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

85

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

92

93 The term “supervised clinical experience” is substituted for the term “practicum” used in the
94 1996 Recommended Training.

95

96 *Addition of Elements of a Competency Model*

97

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

111

112 *Capstone Competency Evaluation*

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

125

126 *Education and Training in Issues of Diversity*

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

134

135 *Designation Process Requirement*

136

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

150

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

164

165 *Maintenance of Competencies through Lifelong Learning*

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

172 *Summary*

173

174 These policies and procedures represent changes inherent in a shift toward a competency-based
175 model of learning and assessment in preparation for prescriptive authority, and are intended to
176 set the context for the understanding of the curriculum as further described in this document.

177 Given the rapid evolution of the field, these standards should be reviewed in five years. This
178 review should include a review of the quality assurance systems.

179

180 **PREREQUISITES FOR ADMISSION TO EDUCATION AND TRAINING PROGRAMS**
181 **IN PSYCHOPHARMACOLOGY**

182

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

185 1. be a graduate of a doctoral program in psychology;

186 2. hold a current state license as a psychologist; and

187 3. practice as a "health services provider" psychologist as defined by state law, where applicable,
188 or as defined by APA.²

189

190 **PROGRAM CHARACTERISTICS**

191

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

194

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

207

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

² 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.

210
211 *Ethical Standards*
212
213 The program administrators and faculty will abide by the current Ethical Principles of
214 Psychologists and Code of Conduct of the American Psychological Association.
215
216 *Mission*
217
218 The program has a clear and comprehensive mission statement that guides it, is approved by the
219 governing body, and is publicly communicated.
220
221 *Governance & Administration*
222
223 The program has sufficient financial resources and access to appropriate physical resources to
224 support its mission.
225
226 The program has qualified and competent administrators, including a director, with appropriate
227 administrative authority.
228
229 The legal authority and operating control of the program are clearly described.
230
231 *Program Characteristics*
232
233 The program is an integrated and organized program of study.
234
235 The program has an identifiable body of students.
236
237 The program is clearly identified and labeled as a postdoctoral education and training program in
238 psychopharmacology for prescriptive authority.
239
240 The program ensures the quality of education and training, including any consortial relationships
241 or contractual agreements.
242
243 The program protects the security, confidentiality, integrity, and availability of student records.
244
245 The program has due process and grievance procedures.
246
247 The program regularly engages in a process of self-evaluation.
248
249 The program ensures that students maintain licensure throughout the program.
250
251 *Faculty*
252
253 Faculty and supervisors are qualified and sufficient in number to accomplish the program's
254 education and training goals.
255

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

259

260 *Learning Resources*

261

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

265

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

268

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

275

276 **DIDACTIC INSTRUCTION AND SUPERVISED CLINICAL EXPERIENCE**

277

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

282

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

289

290 Assessment of the delineated competencies for prescriptive authority includes approaches that
291 integrate evaluation that is both formative (i.e., ongoing corrective feedback that advises for
292 further development) and summative (i.e., determines attainment of a specific competency).

293

294 Assessment is developmentally informed and conducted using multiple reliable and valid
295 methods and varied sources of information. This approach shifts the focus from exclusively
296 documenting what is taught to one based on demonstrating what students have learned and how
297 they effectively apply didactic instruction in integrated practice. Throughout the curriculum,
298 students will demonstrate threshold performance levels at identified benchmarks of competence
299 across the delineated competencies.

299

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

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

308

309 *Didactic Content Areas*

310

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

317

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

321

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

327

328 I. Basic Science

329

A. Anatomy & Physiology

330

B. Biochemistry

331

332 II. Neurosciences

333

A. Neuroanatomy

334

B. Neurophysiology

335

C. Neurochemistry

336

337 III. Physical Assessment and Laboratory Exams

338

A. Physical Assessment

339

B. Laboratory and Radiological Assessment

340

C. Medical Terminology and Documentation

341

Integration of A-C through supervised clinical experience or lab experience in

342

conducting physical exam, ordering psychometric and laboratory tests, understanding

343

results and interpretation

344

345 IV. Clinical Medicine and Pathophysiology

346

A. Pathophysiology with particular emphasis on cardiac, renal, hepatic, neurologic,

347

gastrointestinal, hematologic, dermatologic and endocrine systems.

348	B. Clinical Medicine, with particular emphasis on signs, symptoms and treatment of
349	disease states with behavioral, cognitive and emotional manifestations or comorbidities
350	C. Differential Diagnosis
351	D. Clinical correlations-the illustration of the content of this domain through case study
352	E. Substance-Related and Co-Occuring Disorders
353	F. Chronic Pain Management
354	<i>Integration of A-F through supervised clinical experience or lab experience in taking</i>
355	<i>medical history, assessment for differential diagnosis, and review of systems</i>
356	
357	V. Clinical and Research Pharmacology and Psychopharmacology
358	A. Pharmacology
359	B. Clinical Pharmacology
360	C. Pharmacogenetics
361	D. Psychopharmacology
362	E. Developmental Psychopharmacology
363	F. Issues of diversity in pharmacological practice
364	<i>Integration of A-F through supervised clinical experience or lab experience in Clinical</i>
365	<i>Medicine and ongoing treatment monitoring and evaluation</i>
366	
367	VI. Clinical Pharmacotherapeutics
368	A. Combined therapies - Psychotherapy/pharmacotherapy interactions
369	B. Computer-based aids to practice
370	C. Pharmacoepidemiology
371	<i>Integration of A-C through supervised clinical experience or lab experience in integrated</i>
372	<i>treatment planning and consultation and implications of treatment</i>
373	
374	VII. Research
375	A. Methodology and Design of psychopharmacological research
376	B. Interpretation and Evaluation of research
377	C. FDA drug development and other regulatory processes
378	
379	VIII. Professional, Ethical, and Legal Issues
380	A. Application of existing law, standards and guidelines to pharmacological practice
381	B. Relationships with pharmaceutical industry
382	1. Conflict of interest
383	2. Evaluation of pharmaceutical marketing practices
384	3. Critical consumer
385	
386	<i>Supervised Clinical Experience</i>
387	
388	The supervised clinical experience should be an organized sequence of education and training
389	that provides an integrative approach to learning as well as the opportunity to assess
390	competencies in skills and applied knowledge. The intent of the supervised clinical experience is
391	two-fold:
392	

393 1. To provide ongoing integration of didactic and applied clinical knowledge throughout the
394 learning sequence, including ample opportunities for practical learning and clinical application of
395 skills.

396
397 2. To provide opportunity for programs to assess formative and summative clinical competency
398 in skills and applied knowledge.

399
400 In addition to the didactic hours, the number of hours needed to achieve mastery of clinical
401 competencies is expected to be substantial and will vary across individuals.

402
403 The supervised clinical experience is intended to be an intensive, closely supervised experience.
404 The range of diagnostic categories, settings and characteristics such as development across the
405 lifespan, gender, health status, and ethnicity reflected in the patients seen in connection with the
406 supervised clinical experience should be appropriate to the current and anticipated practice of the
407 trainee. It should allow the practitioner to gain exposure to acute, short-term, and maintenance
408 medication strategies.

409
410 The trainee gains supervised clinical experience with a sufficient range and number of patients in
411 order to demonstrate threshold performance levels for each of the competency areas. In order to
412 achieve the complex clinical competency skills required for independent prescribing, a sufficient
413 number of supervised patient contact hours must be completed. The supervised clinical training
414 experiences must be approved by the training director prior to commencing that placement. The
415 program must document the total number of supervised clinical experience hours that students
416 experience. These must be broken out by face-to-face patient contacts versus other clinical
417 experiences, and the clinical competencies employed.

418
419 In addition, the method and appropriate benchmarks for assuring each clinical competency must
420 be described. These methods may include, for example, performing physical examinations and
421 presenting cases based on actual and simulated patients. The trainee recommends/prescribes in
422 consultation with or under a designated supervisor(s) with demonstrated skills and experience in
423 clinical psychopharmacology and in accordance with the prevailing jurisdictional law.

424
425 The program is responsible for the approval and oversight of each supervised clinical experience.
426 Final approval of the supervised clinical experience must be provided by the program prior to
427 initiation.

428
429 The supervised clinical experience may be integrated into each level of education and training,
430 provided in a final summative practical experience or a combination of both according to the
431 design of the program. The last item in *Domains of Instruction, Sections III-VI*, encompasses
432 areas where clinical experience can be integrated with didactic instruction.

433
434 In either event, the trainee must demonstrate competency in his or her ability to integrate didactic
435 learning and applied clinical skill in a capstone competency evaluation.

436

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

440

441 The clinical competencies targeted by this experience include the following:

442

443 1. PHYSICAL EXAM AND MENTAL STATUS

444 Knowledge and execution of elements and sequence of both comprehensive and focused physical
445 examination and mental status evaluation, proper use of instruments used in physical
446 examination (e.g., stethoscope, blood pressure measurement devices, etc.), and scope of
447 knowledge gained from physical examination and mental status examination

448

449 2. REVIEW OF SYSTEMS

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

452

453 3. MEDICAL HISTORY INTERVIEW AND DOCUMENTATION

454 Ability to systematically conduct a patient clinical interview producing a patient's medical,
455 surgical and psychiatric (if any) history as well as a family medical and psychiatric history, and
456 to communicate the findings in written and verbal form

457

458 4. ASSESSMENT: INDICATIONS AND INTERPRETATION

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

462

463 5. DIFFERENTIAL DIAGNOSIS

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

466

467 6. INTEGRATED TREATMENT PLANNING

468 Ability to identify and select, using all available data, the most appropriate treatment alternatives
469 and to sequence treatment within the larger biopsychosocial context

470

471 7. CONSULTATION AND COLLABORATION

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

475

476 8. TREATMENT MANAGEMENT

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