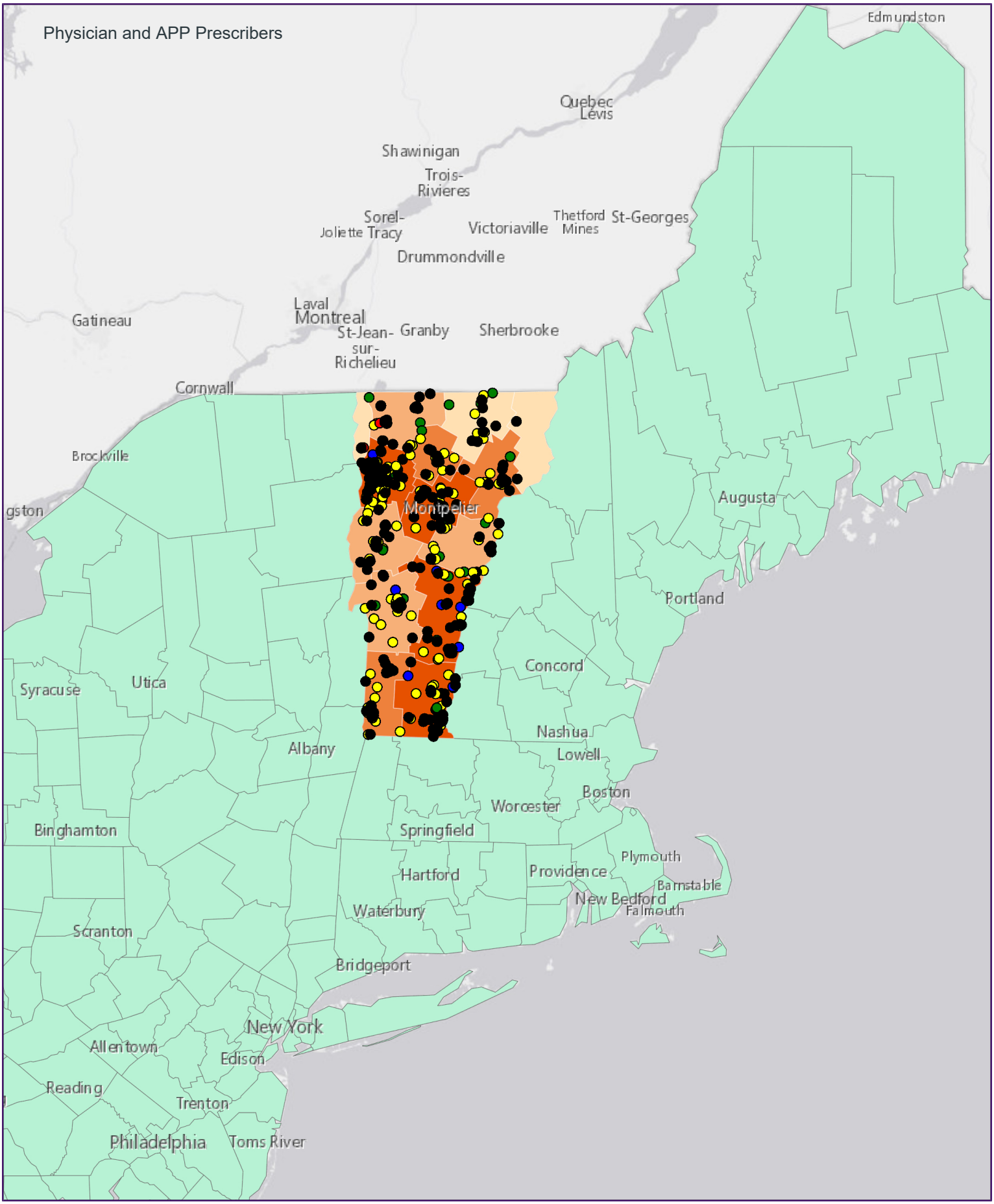
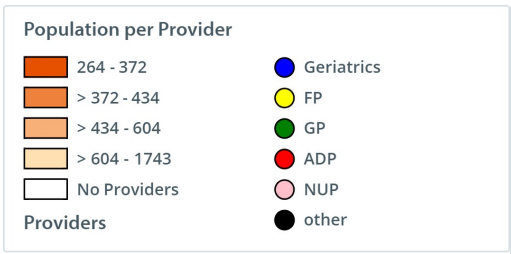
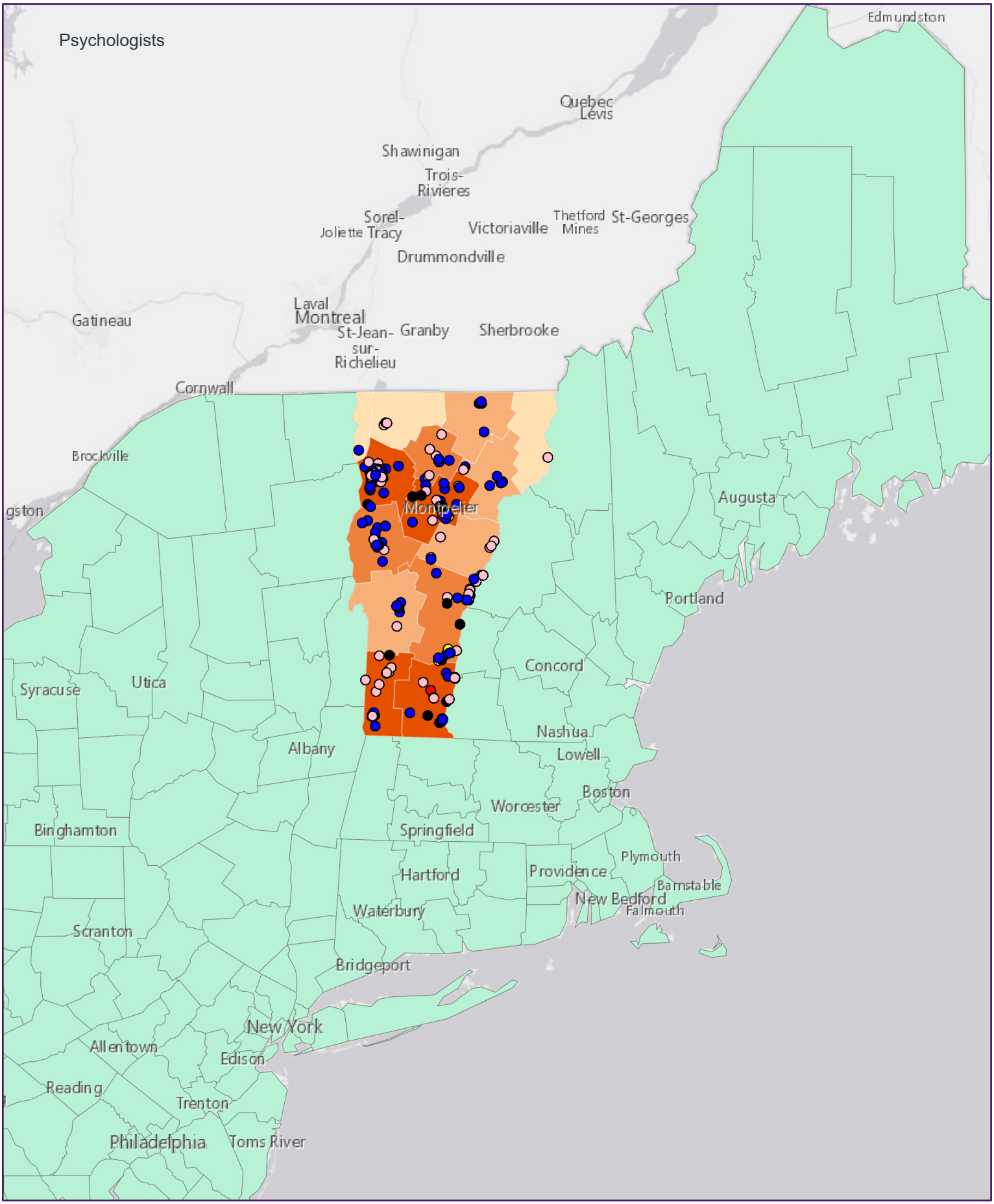

Physician and APP Prescribers
Edmundston
Quebec
Lévis
Shawinigan
Trois-Rivieres
Sorel-Joliette
Tracy
Victoriaville
Thetford Mines
St-Georges
Drummondville
Laval
Montreal
Gatineau
St-Jean-sur-Richelieu
Granby
Sherbrooke
Cornwall
Brockville
gston
Montpelier
Augusta
Portland
Concord
Syracuse
Utica
Albany
Nashua
Lowell
Boston
Worcester
Springfield
Binghamton
Plymouth
Providence
Barnstable
New Bedford
Falmouth
Hartford
Waterbury
Scranton
Bridgeport
New York
Allentown
Edison
Reading
Trenton
Philadelphia
Toms River


Population per Provider
264 - 372
> 372 - 434
> 434 - 604
> 604 - 1743
No Providers
Providers
Geriatrics
FP
GP
ADP
NUP
other


Where Do Indicators Overlap?


Psychologists
Edmundston
Quebec
Lévis
Shawinigan
Trois-Rivieres
Sorel-Joliette
Tracy
Victoriaville
Thetford Mines
St-Georges
Drummondville
Laval
Montreal
Gatineau
St-Jean-sur-Richelieu
Granby
Sherbrooke
Cornwall
Brockville
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Montpelier
Augusta
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Syracuse
Utica
Albany
Nashua
Lowell
Boston
Worcester
Springfield
Binghamton
Plymouth
Providence
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New Bedford
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Waterbury
Scranton
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Allentown
Edison
Reading
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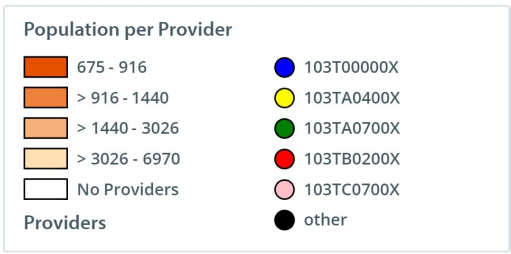
Philadelphia
Toms River


Population per Provider
675 - 916
> 916 - 1440
> 1440 - 3026
> 3026 - 6970
No Providers
Providers
103T00000X
103TA0400X
103TA0700X
103TB0200X
103TC0700X
other


Where Do Indicators Overlap?

SUMMARY OF MEDICAL HEALTH CARE PROFESSIONAL TRAINING:*

Prescribing Psychologist

- 5-6 years of graduate school
- Didactics do not include biomedical content
- 1000 hour internship
- Advanced Training under H. 392: masters in psychopharmacology includes classes in 7 areas, basic life sciences and clinical pharmacology.
- **Graduate Biomedical Classroom Education: 400 hours +**
- Relevant clinical experience, including at least 100 patient consultations, in collaboration with and under the direction of a qualified practitioner.

Psychiatrist

- 4 years medical school training with extensive pre-requisites. Including, development of a fundamental science knowledge in a clinically relevant context.
- Didactics focus on foundation of clinical sciences.
- 8 clerkships, two acting internships, surgical specialty training and other medicine selectives.
- **Graduate Biomedical Classroom Education: 5200 hours (130 weeks * 40 hours)**
- Post-Med School Residency includes didactics in Psychopharmacology and Cognitive Neuroscience, and FOUR years of rotations in medicine.

Primary Care Physician

- 4 years medical school training with extensive pre-requisites. Including, development of a fundamental science knowledge in a clinically relevant context.
- Didactics focus on foundation of clinical sciences.
- 8 clerkships, two acting internships, surgical specialty training and other medicine selectives.
- **Graduate Biomedical Classroom Education: 5200 hours (130 weeks * 40 hours)**
- Post-Med School residency includes 1-3 month rotations in Surgery, Inpatient Pediatrics, Medical ICU, Emergency Medicine, Addiction Medicine/Health Systems Management.

Advance Practice Nurse

- Completion of 4 year BS nursing pre-requisite.
- 3 ½ year doctorate program for registered nurses.
- Minimum of 1000 clinical hours.
- Didactics include Biostatistics and Epidemiology, Advanced Pharmacology, Advanced Neuropharmacology, Pediatric Concepts for APRN.
- **Graduate Biomedical Classroom Education: 2856 hours (51 credits * 56 hours)**
- National Certification Exam required by specialty.
- Collaboration agreement required for first two years of practice.

Physician Assistant

- Extensive science based pre-requisites for enrollment.
- Didactics include Chemistry, Advanced Biology, Organic Chemistry, Anatomy and Physiology, Microbiology.
- **Graduate Biomedical Classroom Education: 2700 hours**
- 5 week clinical rotations in Surgery, Emergency Medicine, OB/GYN, Pediatrics, Psychiatry,.
- Physician supervision and delegation agreement required.

***UVM REQUIREMENTS**

Vermont Psychiatric Association

Vermont Medical Society

Discipline	Psychologist with Training as proposed	Psychiatrist	Family Physician	Psychiatry APN	Physician Assistant
Prerequisite didactics to start training	Undergraduate major in psychology: Biology Choice of additional science based class	Six credits of coursework and two credits of lab (eight total) OR one year in each of the following: General Chemistry Organic Chemistry Physics Biology	Six credits of coursework and two credits of lab (eight total) OR one year in each of the following: General Chemistry Organic Chemistry Physics Biology	Anatomy Chemistry Statistics Health Assessment	Anatomy Physiology Chemistry Microbiology English
Qualifying Exam	GRE	MCATS	MCATS		(often) GRE
Basic Training	(for Doctorate) Five to six years of graduate school, depending on program and degree. (VT requires a doctoral degree in psychology with completion of 4000 hours of supervised practice, OR a masters degree in psychology with 4000 hours of supervised practice for licensure <u>Didactics:</u> many didactics for four years, **none of which need have any biomedical content** <u>Clinical:</u> Students must complete at least 1000 practicum hours prior to attending an APA accredited internship. Students who went on internship in 2012 report an average of 1,579	The educational program is comprised of three levels. **Level One** is the foundation of the educational program and features the development of fundamental science knowledge in a clinically relevant context and the acquisition of clinical skills. Initial courses in the fundamentals of medical science are followed by a series of organ system-based courses. **Level Two** consists of core clerkships emphasizing the basic principles and practices of clinical medicine. This level is comprised of rotations in family medicine, pediatrics, outpatient medicine, inpatient internal medicine, surgery, obstetrics and gynecology, psychiatry, and neurology. Additional educational experiences that are of a clinical nature but not specific to any one discipline are also included. **Level Three** provides students with additional opportunities for the application of medical knowledge with increased responsibilities for the care of patients. This level is comprised of several core requirements, completion of a teaching practicum or scholarly	The educational program is comprised of three levels. **Level One** is the foundation of the educational program and features the development of fundamental science knowledge in a clinically relevant context and the acquisition of clinical skills. Initial courses in the fundamentals of medical science are followed by a series of organ system-based courses. **Level Two** consists of core clerkships emphasizing the basic principles and practices of clinical medicine. This level is comprised of rotations in family medicine, pediatrics, outpatient medicine, inpatient internal medicine, surgery, obstetrics and gynecology, psychiatry, and neurology. Additional educational experiences that are of a clinical nature but not specific to any one discipline are also included. **Level Three** provides students with additional opportunities for the application of medical knowledge with increased responsibilities for the care of patients. This level is comprised of several core requirements, completion of a teaching practicum or scholarly	A minimum of 1000 clinical hours in the Doctor of Nursing Practice (DNP) UVM's program is a doctorate of nursing practice only at this point. Professional Role Development Organization, Delivery & Financing of Health Care Methods for Evidence-Based Practice Theoretical Foundation of Nursing Science Health Care Ethics, Policy & Politics Advanced Topics in Health Informatics	2 semesters General Biology with labs, 8 credits 2 semesters Advanced Biology with labs, 6 credits OR 2 semesters Chemistry with labs, 8 credits 1 semester Anatomy and Physiology, 4 credits (Note: Many programs require 6 or 8 credits with labs) 1 semester English (including composition), 6 credits 2 semesters Psychology or Sociology, 6 credits Statistics, Microbiology, Nutrition, Physics, and Organic Chemistry <u>Clinical Rotations</u>: 5 week rotations each in surgery, emergency medicine, OB/GYN, pediatrics, psychiatry, geriatrics, supervised

Discipline	Psychologist with Training as proposed	Psychiatrist	Family Physician	Psychiatry APN	Physician Assistant
	practicum hours (an average of 796 direct contact hours and 783 supervisory/support hours). Those going on internship in 2013 report an average of 2,043 practicum hours (an average of 1065 direct contact hours and 978 supervisory/support hours). Most students complete these hours in our in-house clinic, The Behavior Therapy and Psychotherapy Center. Other practicum sites are also available (e.g., at the UVM College of Medicine-affiliated teaching hospital, UVM Medical Center, and at clinical practice sites in the community). American Psychological Association (APA) Accredited Clinical Internship Year-long experience (2000 hours) is typically completed following the fourth or fifth year at the University of Vermont. Students apply for an internship at various medical centers, VA hospitals, and mental health centers throughout the country. Internship sites selected by students must be accredited by the American Psychological Association,	project and electives. Clinical correlations are prominent in the curriculum at all levels, beginning with meeting a patient on the first day of medical school. LEVEL ONE: Development of fundamental science knowledge in a clinically relevant context Foundations of Clinical Sciences Attacks and Defenses Nutrition, Metabolism and the Gastrointestinal System Neural Sciences Professionalism Doctoring in Vermont Connections Cardiovascular, Respiratory and Renal systems Human Development and Reproductive Health Convergence Public Health Projects LEVEL TWO: CLERKSHIP YEAR The year is composed of 8 clerkships that are departmentally-based and provide clinical experiences supported by structured educational programs, and a four-week longitudinal Bridge Clerkship. All clerkships must be completed under the supervision of UVM College of Medicine faculty at an approved clinical site. Upon completion of this level students complete a	project and electives. Clinical correlations are prominent in the curriculum at all levels, beginning with meeting a patient on the first day of medical school. LEVEL ONE: Development of fundamental science knowledge in a clinically relevant context Foundations of Clinical Sciences Attacks and Defenses Nutrition, Metabolism and the Gastrointestinal System Neural Sciences Professionalism Doctoring in Vermont Connections Cardiovascular, Respiratory and Renal systems Human Development and Reproductive Health Convergence Public Health Projects LEVEL TWO: CLERKSHIP YEAR The year is composed of 8 clerkships that are departmentally-based and provide clinical experiences supported by structured educational programs, and a four-week longitudinal Bridge Clerkship. All clerkships must be completed under the supervision of UVM College of Medicine faculty at an approved clinical site. Upon completion of this level students complete a	Quality in Health Care (*CTS/ NH 302*) Population-Based Health for Advanced Practice Nsg Leadership of Health Care Systems Biostatistics & Epidemiology Advanced Pathophysiology Advanced Pharmacology APRN Advanced Neuropharmacology APRN Advanced Health Assessment APRN Optimizing Health & Mgt Com Hlth Issues Practicum: Optimizing Health & Mgt Com Hlth Issues Pediatric Concepts for APRN	and evaluated by physicians in those specialties.

Discipline	Psychologist with Training as proposed	Psychiatrist	Family Physician	Psychiatry APN	Physician Assistant
	except in unusual circumstances.	summative clinical skills exam. Neurology Clerkship Obstetrics and Gynecology Clerkship Outpatient Internal Medicine Clerkship Pediatrics Clerkship Psychiatry Clerkship Surgery Clerkship The Bridge Clerkship LEVEL THREE: Advanced Integration The Advanced Integration level comprises required activities that enhance the student's clinical skills and knowledge of basic and clinical science, and elective activities that allow the student to shape his or her own professional development. All students are required to include in their schedules: • Two acting internships (AI). One of the AIs must be in Internal Medicine and the other is a discipline selected by the student. • One month of surgical specialty training. • The Emergency Medicine Selective	summative clinical skills exam. Neurology Clerkship Obstetrics and Gynecology Clerkship Outpatient Internal Medicine Clerkship Pediatrics Clerkship Psychiatry Clerkship Surgery Clerkship The Bridge Clerkship LEVEL THREE: Advanced Integration The Advanced Integration level comprises required activities that enhance the student's clinical skills and knowledge of basic and clinical science, and elective activities that allow the student to shape his or her own professional development. All students are required to include in their schedules: • Two acting internships (AI). One of the AIs must be in Internal Medicine and the other is a discipline selected by the student. • One month of surgical specialty training. • The Emergency Medicine Selective	Primary Care Mgmt. of Children & Adolescents Practicum: Children & Adolescents Adv. Nursing Practice of Older Adults Primary Care Mgmt. of Acute & Common Health Conditions Practicum: Acute & Common Health Conditions (FNP) Mgt Women Gendered Hlth Care Pract: Women Gender Specialty Prim. Care Mgmt. Chronic & Complex Conditions Practicum: Chronic & Complex Conditions (FNP) DNP Project & Seminar I DNP Project Practicum I (120 hours)	

Discipline	Psychologist with Training as proposed	Psychiatrist	Family Physician	Psychiatry APN	Physician Assistant
		• A teaching practicum/scholarly project Surgery Specialty/Subspecialty Emergency Medicine Teaching Requirement/Scholarly Project Elective Courses	• A teaching practicum/scholarly project Surgery Specialty/Subspecialty Emergency Medicine Teaching Requirement/Scholarly Project Elective Courses	DNP Project & Seminar II DNP Project & Seminar III Total Credits = 76 Total Clinical Hours = 810 Total DNP Project practicum hours = 240	
Major Competency Exams	Psychologist Licensing Exam in requires two years of supervised clinical practice, one of which can be during training.	National "Standardized" Exams for each specialty, including psychiatry, with clinical skills testing. National Board Exams Part I, Part II (full-day knowledge exams), and Part II-K, which is a live full day clinical skills examination. Students are ranked nationally against all other US medical students	National Board Exams Part I, Part II (full-day knowledge exams), and Part II-K, which is a live full day clinical skills examination. Students are ranked nationally against all other US medical students.	NP students must pass a mandatory comprehensive exam prior to graduation which demonstrates their competency in the NP accreditation requirements established by AACN and NONPF.	PANCE – independent national exam
Advanced Training	Postdoctoral master's degree in psychopharmacology: (see	Four years of residency training, all of which are in clinical settings.	Comprehensive residency including ongoing didactics and practical	Prepared at the masters or doctoral level having	There are PA Post graduate residency

Discipline	Psychologist with Training as proposed	Psychiatrist	Family Physician	Psychiatry APN	Physician Assistant
	Recommended Postdoctoral Education and Training Program In Psychopharmacology for Prescriptive Authority) **Didactics:** 400 contact hours, at a minimum, of didactic instruction is expected in the following core content areas Basic life sciences Neurosciences Clinical and research pharmacology and psychopharmacology, Clinical medicine and pathophysiology Physical assessment and laboratory examinations Clinical pharmacotherapeutics Research on professional, ethical, and legal issues. **Relevant Clinical Experience:** At least 100 patient consultations, sufficient to attain competency in the	Requirements set by a national body, the ACGME that regulates all medical training programs. **Didactics:** Includes psychopharmacology, neuroscience, cognitive neuroscience, forensics **Residency Training**: Year One: .In the first year, residents complete their 4 month medicine (or pediatrics) requirement, one month of neurology, one month of emergency psychiatry, and spend 5 months on inpatient psychiatry under the close supervision of hospital-based psychiatrists. Year Two: In the second year, they spend 4 additional months on inpatient psychiatry, fulfill their one month addiction and geriatric requirements, complete the second month of their neurology requirement, and have one elective month. Also in the PGY2 year, residents spend two to three months on consultation psychiatry, begin taking on long-term psychotherapy cases under individual supervision, and have the opportunity to do a	rotations. **Year One**: Build own family medicine patient practice at the Family Medicine Center at least one half-day a week. Experience includes family medicine, pediatrics, ambulatory pediatrics, newborn care, obstetrics, cardiac and medical intensive care, surgery, community medicine and urgent care. Ambulatory months are free of call. Rotations: Inpatient Pediatrics – 1 month Newborn Care/Palliative Care – 2 months Obstetrics – 2 months Family Medicine Service – 2 months Inpatient Cardiology – 1 month Medical ICU - 1 month Surgery - 1month Urgent Care Center -1month Family Medicine Center/Community Medicine – 1 month Ambulatory Pediatrics – 1 month **Year Two**: Emphasis based on responsibility in pediatrics, inpatient family medicine, obstetrics, orthopedics, geriatrics, office-based procedures, emergency medicine, cultural awareness and rural medicine. One month of elective time and one month practicing full time at the Family Medicine Center. Continuity of care improves through 3-4 clinic sessions a week, home visits, nursing home rounds, and continued inpatient service. Rotations:	first passed the RN boards. All categories of NP's must obtain a B+ or higher in advanced pharmacology, advanced pathophysiology, and advanced physical assessment. The different category of specialties will have additional advanced education within their specialty.	programs in psychiatry PA can attend.

Discipline	Psychologist with Training as proposed	Psychiatrist	Family Physician	Psychiatry APN	Physician Assistant
	psychopharmacological treatment of a diverse patient population in collaboration with and under the direction of a qualified practitioner (physician, advance practice registered nurse, **prescribing psychologist doctorate**.	Global Mental Health rotation in Uganda. Year Three: The third year is devoted to outpatient adult, community, and child/adolescent psychiatry with residents increasing their psychotherapy caseload while obtaining more intensive individual and group supervision. Year Four: Fourth year residents in the combined adult/child program follow the curriculum outlined on the child psychiatry website. General PGY4 residents continue with their outpatient caseloads, learn collaborative care models in the consult to primary care clinic, and hone their addiction psychiatry skills in our buprenorphine clinic. The rest of the year is elective time which residents can design to suit their interests and future practice needs. In their fourth year, residents are encouraged to take more of a leadership role in the teaching and mentoring of medical students and junior residents. They may return to the hospital-based psychiatry rotations in a junior attending role. A chief resident is selected who serves as a liaison between the department and residency group, sitting on a number of committees, teaching students, recruiting new residents, and running the resident lunches and retreats.	Inpatient Pediatrics – 1 month Obstetrics – 1 month Emergency Medicine – 1 month Family Medicine Service – 3 months Family Medicine Center/Dermatology – 1 moth Orthopedics/Sports Medicine – 1 month Elective – 1 moth Family Medicine Procedures – 1 month Rural – 1 month Gynecology – 1 month Family Medicine Center – Two to six half days per week – outpatient rotations. **Year Three**: advanced practice in the Family Medicine Center. Residents spend four to five half-days per week in the Center to continue to develop their clinical skills. In addition, you will have two months to choose electives that match your educational needs and future career plans. Two Chief Residents are elected from the third year class. Family Medicine Procedures – 1 month Family Medicine Center/Endocrinology – 1 month Orthopedics – 1 month Specialty Clinics (includes Urology, ENT, Opthalmology, and Geriatric home visits – 1 month Outpatient Pediatrics – 1 month Pediatric Urgent Care /Pediatric Emergency Medicine – 1 month Addiction Medicine/Health Systems Management – 1 month Elective – 2 months Family Medicine Center – Four to five half days per week – Outpatient		

Discipline	Psychologist with Training as proposed	Psychiatrist	Family Physician	Psychiatry APN	Physician Assistant
		Residents are asked to select an area of scholarly interest (e.g. a research, curriculum, or quality improvement project) that they will research and develop under the mentoring guide of a faculty member across the four years of residency. This work culminates in a scholarly project and presentation in the PGY4 year (or PGY5 year if in the integrated track).	Rotations.		
Advanced Exam		National Boards Part III	National Boards Part III	See below	Through NCCAPA, PA's can obtain a Certificate of Advanced Qualification in Psychiatry. Not
Certifying Exam	"Passed examination developed by a nationally recognized body and approved by the Board that is relevant to establishing competence for prescribing.	American Board of Family Medicine Certifying Exam	American Board of Family Medicine Certifying Exam	National certification exams are required according to specialgely (Adult Fero NP, Psych Mental Health NP, Pediatric NP, Family NP)	PANCE – independent national exam
Licensure in Vermont	Board of Psychological Examiners prescribing certificate	Independent Provider under the Medical Board	Independent Provider under the Medical Board	NP's are licensed as APRN's in VT and are regulated by the Board of Nursing.	Yes
Collaborative Agreement Required	No collaboration agreement required, but proposals inc: "A psychologist-doctorate who has received a prescribing certificate from the Board shall consult and collaborate with a patient's	No	No	No	Yes

Discipline	Psychologist with Training as proposed	Psychiatrist	Family Physician	Psychiatry APN	Physician Assistant
	primary care provider, psychiatrist, or prescribing psychologist-doctorate of record to obtain a concurrence prior to initiating, making changes to, or terminating a medication treatment plan."				

Psychiatric Medications Affect All Body Systems

Safe, appropriate prescribing requires expert medical knowledge of all body systems.

Nervous

Medications affect the connection between brain and body, sometimes impairing alertness and reaction time. May cause seizures or stroke.

Skin

Medications may cause a potentially fatal rapid loss of skin (known as Stevens-Johnson syndrome).

Respiratory

Medications are known to affect a patient's ability to breathe and rate of breath. May cause respiratory failure.

Urinary

As part of the removal of waste, medications can impact one's kidneys, bladder and urinary tract. May cause kidney stones or failure.

Cardiovascular/Circulatory

The heart, arteries and veins are crucial to delivering oxygen and nutrients to organs and cells, and medications can alter their function. May cause cardiac arrest.

Reproductive

Fertility, sex drive, and maternal and infant health all may be at risk because of certain medications. May cause birth defects.

Endocrine

Medications may change a patient's hormone production, secretion and metabolism. May cause abnormal breast development and lactation in men and women.

Immune

Medications can affect or destroy immune and lymphatic systems, impacting the body's ability to defend against disease-causing agents or even cancer.

Musculoskeletal

Some medications can cause tremors or permanent involuntary movements. Others may affect calcium absorption, bone density and bone formation.

Digestive

Medications are often taken by mouth, metabolized by the liver and can affect the stomach, pancreas, gallbladder and intestines. May cause liver failure.

AMERICAN PSYCHIATRIC ASSOCIATION

Prescribing Can't Be Taught In Just Ten Weeks

Journal of Applied Biobehavioral Research
RAPID COMMUNICATIONS IN BEHAVIORAL MEDICINE

What Oregon Psychologists Think and Know About Prescriptive Authority: Divided Views and Data-Driven Change

Tanya L. Tompkins[1] and Jenna D. Johnson
Department of Psychology
Linfield College

Following a veto of a prescriptive authority (RxP) bill in Oregon, 397 of 743 randomly selected psychologists were surveyed online regarding their attitudes and knowledge. Participants were randomly assigned to a control ($n = 203$) or education ($n = 194$) condition. After being exposed to information regarding access, training, and legislation, education participants completed post-test measures. Evidence supporting proponents' argument of improved access was not forthcoming. There was a division about scope expansion (43% support, 32% opposed, 25% undecided). Respondents' knowledge of RxP was minimal, but education increased knowledge. Views were more stable, with attitudes shifting only in targeted areas. Using a "cultural cognition" framework, the discussion centers on exploring the need to evaluate RxP and use this information to educate psychologists about this issue.

Over the past two decades, an important, and at times contentious, debate has emerged within the field about whether doctoral-level clinical psychologists should be granted the right to prescribe psychotropic medication after completing additional training in clinical psychopharmacology (DeLeon, Dunivin, & Newman, 2002; Heiby, 2002; Heiby, 2010; Heiby, DeLeon, & Anderson, 2004; McGrath, 2010; McGrath & Muse, 2010; Muse & McGrath, 2010; Resnick & Norcross, 2002; Robiner et al., 2002). Since the American Psychological Association (APA) formally endorsed the pursuit of prescriptive authority (RxP) for psychologists in 1995, over half of all states have considered legislation (see Figure 1). However, only in the U.S. territory of Guam in 1999, New Mexico in 2002, and Louisiana in 2004 have licensed psychologists been granted prescriptive authority. Illinois became the third state to grant RxP to psychologists in June 2014, although the training requirements and formulary restrictions are notably more stringent.

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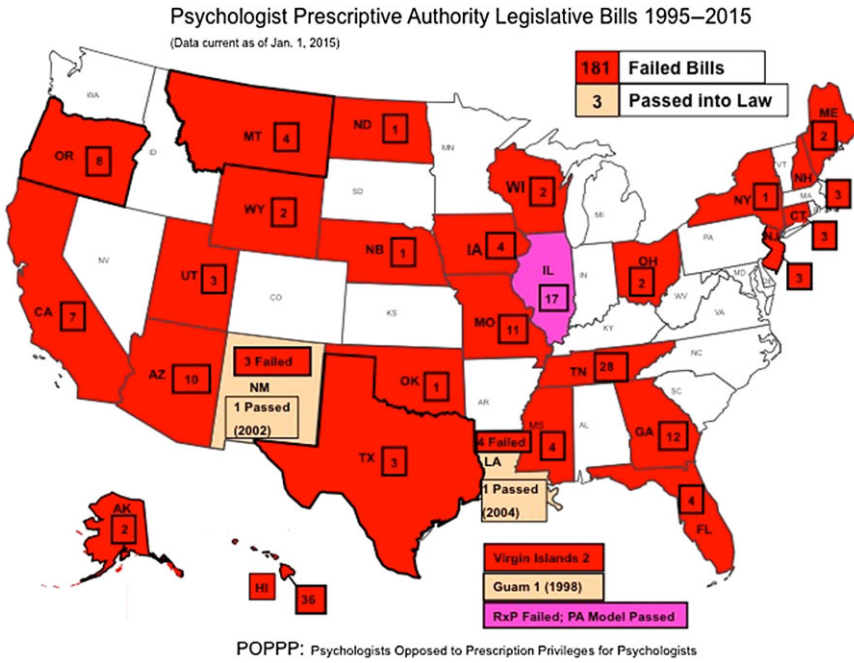

Figure 1. Map documenting psychologist prescriptive authority legislative activity from 1995 to 2014. Updated and modified with permission from the map originally published by Robiner et al. (2013).

A range of arguments has been advanced in support of the RxP movement, nationally and in Oregon. Proponents, during a short legislative session in February 2010, successfully persuaded the legislators in the house and senate to pass a bill (Senate Bill 1046) that would have made Oregon the third state to allow psychologists to prescribe psychotropic medications. Their arguments hinged primarily on the need to improve access to psychiatric care, especially among rural Oregonians and suggested that psychologists, who overwhelmingly support scope of practice expansion, are already safely and effectively prescribing elsewhere, such as in the military, New Mexico, and Louisiana. However, opponents and Governor Kulongoski, who vetoed the bill in April 2010, raised concerns about the gravity of the policy shift and the lack of evidence to support it. In his veto letter, Kulongoski wrote, "I believe that a policy change of this significance requires more safeguards, further study and greater public input than was provided during the February special session" (Kulongoski, 2010).

Echoing the call for evidence-based decision making, opponents, in both the national and Oregon debate, countered that there are no data to suggest that

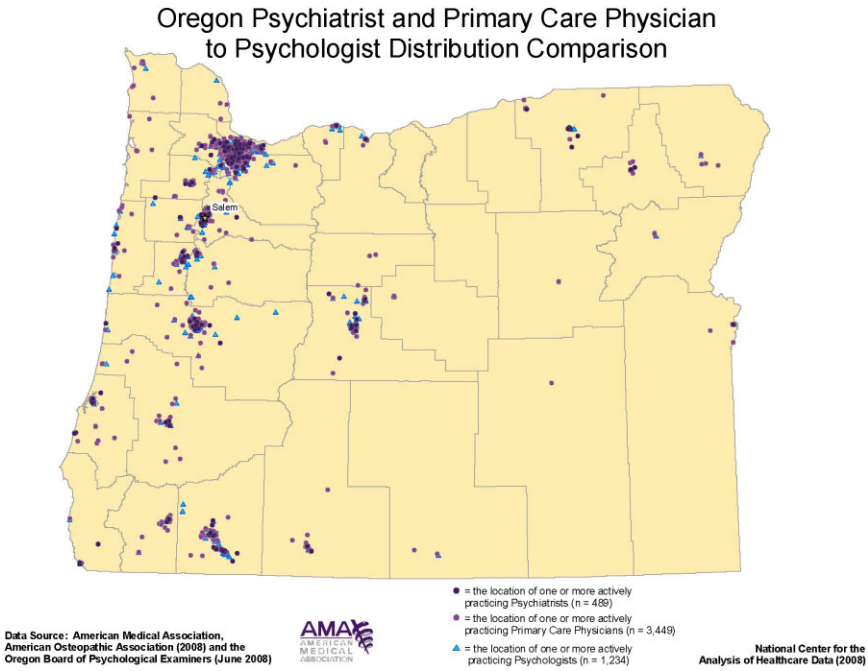

Figure 2. These data show the geographic distribution comparison for psychiatrists, primary care physicians, and psychologists in Oregon. Arguments for improving rural access are advanced by proponents but the data suggest similar practice locations with more primary care physicians in outlying rural areas. Other states present similar geographic distributions. This figure is reproduced with the permission of the American Medical Association.

providing prescription privileges to psychologists will increase access to quality psychiatric care. This lack of study is particularly disturbing in light of the fact that psychologists have been prescribing for more than a decade. The extant data call into question claims of improved access. For example, as illustrated in Figure 2, psychologists, psychiatrists, and primary care physicians share similar demographic distribution patterns with the majority residing in urban areas (National Center for the Analysis of Healthcare Data, 2008). Additionally, data from New Mexico and Louisiana suggest that most prescribers either move out of the state (20%) and do not prescribe or primarily treat patients in urban (59%) versus rural settings (see Appendix A). Furthermore, past studies raise further questions about the legitimacy of the rural argument: (a) almost no psychologists were found to practice in true rural counties in a survey-based study of Illinois psychologists (Baird, 2007); (b) psychologists practicing in both non-metro and

urban areas perceived similar problems with access to trained medication prescribers in a study of Illinois (Baird, 2007) and Oregon psychologists (Campbell, Kearns, & Patchin, 2006); and (c) non-metro Illinois psychologists were no more likely than their urban counterparts to pursue training to become a prescriber (Baird, 2007). The current study seeks to evaluate the degree to which psychologists, especially those interested in pursuing training in RxP, practice in non-metro areas in Oregon in sufficient numbers to lend legitimacy to the claim of improved access. Additionally, whether providing evidence about practice patterns in RxP states results in changes in attitudes toward the argument of improved access will be explored.

A second major argument advanced by proponents of RxP centers on the assertion that psychologists can be adequately trained to safely prescribe. DeLeon and others (see Heiby et al., 2004) express concerns about the fact that the majority of psychotropic medications are prescribed by non-psychiatrist physicians with little to no mental health training (Lieberman, 2003). Pointing to a precedent for safe prescribing by other non-physician prescribers, models of training in the military with a successful track record, patterns of functional prescribing by psychologists in private practice, and an extensive history of safe prescribing practices, proponents suggest that psychologists can serve an important role in improving access to psychotropic medications (Heiby et al., 2004).

Opponents, however, question the adequacy of these claims, raising concerns about the current APA training model, in terms of background, breadth, and comprehensiveness of training, and questioning the parallels made between RxP and other non-physician prescribing training (Heiby, 2010; Heiby et al., 2004; Robiner, Tumlin, & Tompkins, 2013). For example, in his review of the history of RxP training models, Robiner et al. (2002) noted a decreasing trend in the amount of recommended training over time with the current APA model involving less than half of the amount of medical training required of any other prescribing professions (Heiby et al., 2004). Proposals by the initial APA task force (Smyer et al., 1993) and the Psychopharmacology Demonstration Project (PDP; American College of Neuropsychopharmacology, 2000) recommended that trainees possess a strong science background consonant with what is required of other non-physician prescribers who can independently prescribe. It is perplexing that proponents openly acknowledge these reduced standards, ". . . psychology has the core curriculum with probably the least overlap with traditional medical curricula" (Fox et al., 2009, p. 258), whereas surveys suggest that psychologists believe that in order to competently prescribe, their knowledge and training should be equivalent with that of other prescribers (Baird, 2007; Grandin & Blackmore, 2006).

Over a decade ago, Elaine Heiby (2002) proposed a moratorium on legislation enabling RxP until sound outcome data regarding RxP were forthcoming.

Although proponents persistently proclaim that the "numbers are indeed impressive," pointing to an estimated 200,000 psychotropic medication orders that had been safely and effectively written by Glen Ally's Louisiana colleagues alone in the first 4 years after enabling laws were enacted in that state (DeLeon, 2012, p. 6), these claims are vague (i.e., 200,000 patients or repeat scripts), appear to be divorced from reality, and are not grounded in actual data. As of 2014, there were 82 medical psychologists in Louisiana. In the 4 years between the passage of the bill and Ally's estimation, there were substantially fewer prescribing psychologists. In fact, in the only published attempt to evaluate prescribers, Levine, Wiggins, and Masse (2011) identified only 25 (14 in Louisiana, 9 in New Mexico) of the 59 psychologists with prescription privileges who were practicing part-time or full-time. Of the 17 interviewed, just over half reported that they saw 30 or more patients a week, four saw 20 or more patients a week (three were new to their practice or did not answer the questions) and approximately 70% to 80% of patients were prescribed medications by these prescribing psychologists. This translates into an estimated 300 patients treated with prescriptions (9 psychologists seeing 35 patients and 4 seeing 25 patients with both prescribing for 75% of their client load) written by these New Mexico psychologists. Thus, it appears as if this often-quoted statistic is either a steep overestimate or perhaps those who did not take part in the survey are overprescribing—a criticism leveled at primary care physicians. When opponents have asked for data to support such claims about practice patterns and safety, it is not forthcoming. It seems particularly surprising that so many prescriptions could be provided "without incident" (Fox et al., 2009, p. 264), as proponents claim, given the rates of significant adverse effects associated with psychoactive medications, some of which are extreme. For example, both conventional and atypical antipsychotics are associated with very concerning mortality rates in older adults typically within several months of initiating a medication trial (Kales et al., 2007; Wang et al., 2005). Whether prescribing psychologists are not detecting problems associated with medication use or whether they could be minimizing rates of adverse effects is unclear.

The only other study to date which has sought to evaluate the impact, utility, and safety of prescribing psychologists was similarly limited in scope and methodology. Shearer, Harmon, Seavey, and Tiu (2012) surveyed 47 primary care providers and residents who worked closely with *a single* prescribing psychologist in a family medicine clinic in an Army medical center. Although they concluded that their study provided evidence that prescribing psychologists "practice safely and effectively" (Shearer et al., 2012, p. 428), self-report data from extremely small samples provides limited evidence of safety or effectiveness. Echoing worries about safety, Hawaii's Governor cited consumer protection concerns in her rationale for vetoing Hawaii's bill in the only other state besides Oregon where enabling legislation passed both legislative chambers (Lingle, 2007).

Although opponents are often portrayed by proponents as unnecessarily raising concerns about potential health hazards (e.g., Resnick & Norcross, 2002), there is wisdom in exploring established routes that require a prerequisite science background and would not require legislative capital that could better be used to increase interprofessional care (Heiby et al., 2004; Robiner et al., 2013).

Finally, proponents of RxP typically present legislators with a narrative that paints a united group of psychologists against psychiatrists and other physicians who are opposed to scope expansion, not on principle, but out of a desire to protect their professional and financial interests. While most research conducted over the past 20 years continues to suggest that a majority of psychologists support the idea of prescriptive authority for psychologists (see Table 1), support is hardly unanimous (Walters, 2001). Past studies are generally limited by their small sample sizes and low response rates. Additionally, relatively few studies (see Table 1 for exceptions) have examined variables which might inform the legislative drive for RxP, namely whether psychologists would be personally interested in pursuing prescription privileges if prescriptive authority passed and whether psychologists are generally willing to invest in legislative efforts. Existing research suggests that significantly fewer psychologists would be willing to pursue prescription privileges than support the general idea of prescriptive authority, and among those who would pursue training, very few would be willing to invest the time or money required to obtain the appropriate post-doctoral training (e.g., Fagan, Ax, Liss, Resnick, & Moody, 2007). It is also noteworthy that survey items designed to assess support for RxP do not define "appropriate" training. Therefore, some psychologists may support the idea of prescribing in principle, but not the post-doctoral training in psychopharmacology model offered by the APA. Additionally, as noted by Knapp et al. (Knapp & Bowers, 1997; Knapp, Leitzel, & Keller, 2013), across time, RxP seems to be among the lowest legislative priorities, signaling that there are more pressing issues in need of attention. The current study builds on this work in exploring what Oregon psychologists think about legislative costs and efforts and whether they would pursue prescription privileges should legislation pass.

In addition, prior studies, in surveying psychologists about their attitudes, have generally not paid attention to pre-existing knowledge about relevant issues (Baird, 2007; Simpson & Kluck, 2007), nor have they examined views about cost, feasibility, and access. For example, although over 75% of Baird's sample of clinical psychologists in Illinois indicated that they were "familiar with issues surrounding prescription authority for psychologists," nearly half were not familiar with the training model used in the Department of Defense Psychopharmacology Demonstration Project (DoD PDP) and over one-third were not familiar with APA's training model. Both perceptions of knowledge

Table 1

Summary of Psychologists' Attitudes toward Prescription Privileges, 1981–2013

			Prescriptive authority			Becoming a prescriber		
Study	Sample	Response rate (%)	Agree (%)	Undecided (%)	Disagree (%)	Agree (%)	Undecided (%)	Disagree (%)
Bascue and Zlotowski (1981)	143 psychologists from Pennsylvania	52	59	—	41	36	6	58
Jarrett and Fairbank (1987)	358 members of APA	38	57	—	43	—	—	—
Boswell and Litwin (1992)	330 hospital-affiliated psychologists	57[a]	27	24	49	—	—	—
Folen (1989)	125 psychologist from Hawaii	—	46	9	45	—	—	—
Piotrowski and Lubin (1989)	270 APA Division 38 psychologists (Health)	40	30[b]	9	61	—	—	—
Barkley et al. (1990)	534 members of APA Division 12-1 (Child Clinical)	56	65	—	35	45	2	53
Frederick/Schneiders, Inc. (1990)	1,505 members of the APA Practice Directorate	—	68	3	29	—	—	—
Riley et al. ((1992)	81 graduate and internship training directors	54	34	14	52	—	—	—
Chatel et al. (1993)	1,223 APA Division 40 psychologists (Neuropsychology)	36	52	14	34	—	—	—
Kubiszyn & Carlson (1995)	571 APA Division 16 psychologists (School Psychology)	29	59	15	25	—	—	—
Ax et al. (1997)	226 directors of clinical training	—	72	11	18	34	27	40
	846 clinical graduate student interns	—	72	13	16	52	26	23
Evans & Murphy (1997)	99 directors of clinical training	60	17	47	35	—	—	—
Pimental et al. (1997)[b]	31 attendees of session on RxP—1990 pre-test	86	61	19	19	—	—	—
	31 attendees of session on RxP—1993 pre-test	—	94	0	6	—	—	—
	31 attendees of session on RxP—post-test	—	97	0	3	—	—	—
Tatman et al. ((1997)	302 graduate students in clinical psychology	60	70	17	13	62	26	11
Knapp and Bowers (1997)	258 psychologists from Pennsylvania	47	73	9	18	63	15	22
Klusman (1998)	126 military psychologists	—	78	—	12	—	—	—

Table 1

continued

Study	Sample	Response rate (%)	Prescriptive authority			Becoming a prescriber		
			Agree (%)	Undecided (%)	Disagree (%)	Agree (%)	Undecided (%)	Disagree (%)
Plante (1998)	218 active clinical diplomats of American Board of Professional Psychology	56	45	—	55	—	—	—
Sammons et al. (2000)	435 psychologists from Maryland	21	67	7	25	38	15	46
deMayo (2002)	374 clinical doctoral students	56	68	18	13	50	23	27
Luscher et al. (2002)	421 clinical doctoral students	50	56	16	29	43	18	39
Fagan et al. (2004)	245 directors of clinical training	57	62	17	20	25	28	47
	851 clinical graduate student interns	33	69	15	16	43	28	31
Fagan et al. (2007)	61 directors of clinical training	18	59	16	25	30	16	54
	185 clinical graduate student interns	16	62	21	17	46	19	35
	35 post-doctoral residents	13	71	23	6	40	29	31
	216 APA psychologists in independent practice	43	64	15	21	19	16	65
Grandin and Blackmore (2006)	363 graduate students in clinical psychology	—	—	—	—	68	—	32
Baird (2007)	306 psychologist from Illinois	37	61			30		
Rae et al. (2008)	213 APA Division 54 psychologists (Pediatric Psychology)	53	78	5	17	—	—	—
Knapp et al. (2013)	717 licensed psychologists from Pennsylvania	23	60	—	—	—	—	—
Current survey	397 licensed psychologists from Oregon	53	43	25	32	7	17	76

Note. APA = American Psychological Association; RxP = prescriptive authority.

[a]Although 57% of 582 psychologists provided data, this represented 31% of the original sample of 1,061 psychologists originally surveyed 1 year earlier with rates remaining fairly stable across time (27% agreed, 22% were unsure, 51% disagreed).

[b]Those who attended a session on RxP at the Illinois Psychological Association's 1997 conference were asked to answer survey items retrospectively, now and after participating in the session.

and what Oregon psychologists actually know about current training models were assessed in the current study. Additionally, in line with prior research, we sought to examine which arguments proponents and opponents found most compelling and whether presentation of information regarding access, training, and legislative history would lead to targeted changes in these attitudes or more broad-scale change. To date, only one study has explored whether "education" leads to changed attitudes regarding RxP. At the 1993 Illinois Psychological Association (IPA) convention, Pimental, Stout, Hoover, and Kamen (1997) examined retrospective reports of attitudes toward RxP as well as immediate pre-post changes in attitudes following an RxP presentation attended by 36 attendees, 31 of whom completed pre-post surveys. Although they demonstrated a shift toward increasingly favorable attitudes across time, these changes occurred in a small sample of self-selected individuals.

In summary, the current study builds on past work by assessing attitudes, knowledge, and expectations about the pursuit of RxP in a sample of Oregon psychologists and will allow us to evaluate the degree to which the presentation of factual information about access, training, and legislative efforts may shift opinions relating to prescription privileges for psychologists.

Method

Participants

From a list of 1,317 licensed Oregon psychologists, approximately 60% were randomly selected to participate in the online survey. Data collection occurred over a 2-year period beginning in September 2010 with the last survey completed in December 2012. Researchers contacted these psychologists by phone and email using the information listed by the Oregon Board of Psychologist Examiners or other publicly accessible websites (e.g., professional websites, white pages). Seventy-six psychologists were ineligible to participate (i.e., death, suspended license, moved out of state) and 72 did not have a working phone number or email address. Of the psychologists contacted, 397 completed the survey, 242 declined to participate, and 104 did not return contact yielding a response rate of 53%. Although directly contacting psychologists by phone and email resulted in higher response rates relative to prior studies that recruited via mail (Baird, 2007; Fagan et al., 2007; Sammons, Gorny, Zinner, & Allen, 2000), future researchers should note that this population can be difficult to recruit, even with more direct phone and email contact methods.

Procedure and Measures

Researchers randomly assigned eligible psychologists to either the control condition ($n = 203$) or education condition ($n = 194$). Regardless of assigned condition, all participants completed survey items about their views on RxP and provided basic demographic information. After providing information about their general views on RxP and basic demographics, education condition participants were asked to carefully and independently review the data on RxP (e.g., scope of practice for current prescribing psychologists, information about training, summary of legislative activity—see Appendices A, B, C) and then completed the post-test items assessing views and knowledge of RxP. Thus, the education consisted of a self-led review of objective information about RxP, not an attempt to persuade or dissuade about the value of RxP. Participants received an email with a unique link to the online survey and were asked to complete it within 2 weeks. Researchers sent an initial reminder via phone and email with weekly reminders thereafter until surveys were complete. Nine participants assigned to the education condition completed only pre-test data and were assigned to a *de facto* control condition status.

In light of the fact that prior studies have typically not assessed knowledge of RxP, participants first rated their perceived familiarity with the DoD and APA training models on a 5-point Likert scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*) and then answered a series of questions tapping knowledge of RxP. First, participants were asked to record answers in response to the question, "What states and/or US territories currently allow psychologists to prescribe psychotropic medications?" (Louisiana, New Mexico, Guam). Second, after being prompted to consider the recent APA Criteria for Education and Training in Preparation for Prescriptive Authority (2009), they were asked to identify the following: (1) the three APA prerequisites for admission to post-doctoral training programs in psychopharmacology (doctorate in clinical psychology, current licensure, health services provider); (2) the minimum contact hours for didactic training (400 hours)[2]; and (3) the minimum number of patients to be seen during the supervised clinical experience (100 patients).

[2]While the *APA Postdoctoral Education and Training Program in Psychopharmacology for Prescriptive Authority Guidelines* recommend 400 hours of contact with patients, we scored participants' answers correct if they reported between 300 and 500 hours. We asked participants to report the minimum number of patients that the APA recommends psychologists treat during their supervised training hours. Only 5.8% correctly reported that 100 patients be seen. It is important to note that current guidelines have moved away from a specific minimum number of patients to be seen which is why the results are not discussed.

Consistent with prior surveys, respondents rated a range of items regarding RxP (see Table 2). In addition, the following items were used to gauge broader support for RxP in the profession: (1) "Psychologists should expand their professional training and scope of clinical practice to include the administration and clinical management of psychotropic medications" rated on a 5-point scale from 1 (*unconditionally in favor*) to 5 (*unconditionally opposed*); (2) "Do you think the benefits outweigh the cost?" (*yes, no, undecided*); and (3) "I am interested in completing the appropriate training, as recommended by the APA, for prescribing privileges" and "I plan to obtain the necessary training and plan to prescribe medication" both rated on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Results

The sample was composed of 199 males (50.1%), 193 females (48.6%), 1 transgender participant (0.3%), and 4 participants did not report their gender (1%). The mean age of participants was 53.65 years ($SD = 10.71$) and the psychologists who declined or were ineligible to participate ($M = 56.85$ years; $SD = 10.32$) were significantly older, $t(885) = 4.52$, $p < .01$. Respondents were predominately Caucasian (94.3%), but also included individuals of Hispanic (2.3%), Native Hawaiian or Asian-Pacific Islander (1.3%), Native American (0.8%), and mixed/other-ethnic origin (1.3%). Their highest degrees earned included PhD (69.4%), PsyD (30.3%), and EdD (0.3%). The mean length of time since degree completion was 20.00 years ($SD = 10.41$). Professional affiliations included the Oregon Psychological Association only (OPA; 20.1%), APA only (17.0%), both APA and OPA (28.0%), and Association for Psychological Science (5.5%), 16.3% reported other associations (e.g., county organizations) and 13.1% reported no professional affiliation. Participants reported spending the majority of their time providing direct clinical service (72%), either in private practice (55%) or another clinical setting (17%). Other professional activities included teaching (4.5%), training/supervision (5%), research (3.5%), consulting (6%), administration (8%), and other duties (1%).

Using the rural-urban continuum 2013 codes developed by the Economic Research Service (ERS) of the United States Department of Agriculture (2013), we coded participants' self-reported zip code for their primary practice. The 2013 codes rank counties based on population density from the 2010 U.S. Census data on a continuum from 1 (*a county in metro area with 1 million population or more*) to 9 (*a non-metro county completely rural or less than 2,500 urban population, not adjacent to metro area*). As shown in Table 3, the majority (96.2%; $n = 376$) of psychologists in the sample practiced in metropolitan areas (Codes 1–3). Only 3.8% ($n = 15$) of the sample practiced in non-metro counties (Codes 4–7), none of which are truly rural according to the ERS. An additional five licensed

Table 2

Survey Items on General Views, Training, Advocacy, and Reasons For and Against Extending Prescription Privileges to Psychologists

Item number and description	*M*	Disagree (%)	Neutral (%)	Agree (%)	Item source
14. A prescriptive training model for psychologists should resemble a medical training model.	3.36	19.2	34.8	46.0	9
15. My opinion about whether psychologists should have prescription privileges is based solely on the training model that will be used to prepare psychologists to prescribe.	2.57	52.5	27.1	20.4	5
16. Psychologists should receive the same amount of training in prescribing medication as other non-physician professionals who have prescription privileges.	3.77	10.5	20.3	69.2	5
17. Psychologists should pursue prescription privileges through existing licensure options (e.g. advance practice nurse or physician assistant licenses).	2.65	50.0	28.0	22.0	5
18. I plan to contact my state representative and/or senator to educate them about prescription privileges for psychologists.	2.02	73.6	18.7	7.7	5
19. Psychologist prescription privilege legislative efforts in Oregon should be postponed until more data are collected regarding prescription-related lawsuits in states that already have prescription privileges for psychologists.	2.62	45.6	37.4	17.0	5
20. The APA should pursue further research on the topic of prescription privileges for psychologists.	3.64	14.7	19.5	65.8	10
21. I worry about the cost of the legislative effort needed to obtain prescription privileges for psychologists in Oregon.	2.65	44.9	34.8	20.3	5
22. Will better serve underserved (e.g., rural) populations.	3.84	11.4	16.9	71.7	6

23. Will cause a greater focus on biological/medical factors, thereby diluting the distinction between psychiatry and psychology.	3.35	27.4	20.3	52.3	6
24. Will enhance the ability of psychologists to more effectively treat certain clients/patients.	3.73	16.2	13.2	70.6	4
25. Will significantly increase education costs.	3.69	8.2	28.1	63.8	6
26. Is an issue of economic survivability.	2.49	54.7	31.5	13.8	1,2, 3
27. Will not address unmet needs of vulnerable segments of the population because psychologists may be less available than physicians in rural and underserved areas.	2.64	49.0	33.2	17.9	6
28. Will improve access due to a shortage of psychiatrists.	3.87	7.1	18.6	74.3	1,2, 3
29. Will significantly increase mental health costs.	2.58	46.8	39.2	14	6
30. Will enhance psychologists' credibility.	3.03	33.3	28.2	38.4	5
31. Will result in medications taking the place of therapy.	2.88	43.6	24.5	31.9	4
32. Represents a logical extension of the practice of clinical psychology.	2.99	39.6	19.8	40.6	1,2,3,5,7
33. Will lead to rising malpractice rates for all psychologists.	3.72	13.3	23.3	63.4	4,5, 7
34. Will result in less over-prescription of medications because clinical psychologists are skilled in delivering other treatment approaches.	3.10	29.9	31.5	38.6	4, 7
35. Will cause a change to the identity of psychologists.	3.76	8.4	18.4	73.2	4
36. Makes sense as I already "functionally prescribe" psychotropic medication now when I collaborate with non-psychiatrist physicians.	2.73	46.3	24.7	29.0	5
37. Will lead to difficulty deciding on a proper method of training.	2.93	34.6	36.7	28.7	7
38. Will damage relations with psychiatry.	3.22	24.9	33.3	41.7	1,3, 4

Note. In many cases, similar information was assessed but wording of items varied across surveys. When source is noted, the item is identical or nearly identical to the item used in the current study but very similar questions may have also appeared in other studies not necessarily noted. APA = American Psychological Association; 1 = Ax et al. (1997); 2 = Boswell & Litwin (1992); 3 = Fagan et al. (2004); 4 = Sammons et al. (2000); 5 = Baird (2007); 6 = Kubiszyn & Carlson (1995); 7 = Luscher et al. (2002); 8 = Tatman et al. (1997); 9 = Grandin and Blackmore (2006); 10 = Robiner et al. (2003).

Table 3

Participant and General Population Information According to Oregon Rural-Urban Continuum Codes

	Sample		Populace	
Code and description	*n*	%	*n*	%
1. County in metro area with 1 million population or more	253	63.89	1,789,580	46.71
2. County in metro area of 250,000 to 1 million	80	20.20	742,453	19.38
3. County in metro area with fewer than 250,000	43	10.86	645,903	16.86
4. Non-metro with urban population of 20,000 or more, adjacent to metro area	4	1.01	220,595	5.76
5. Non-metro with urban population of 20,000 or more; not adjacent to metro area	2	0.51	175,457	4.58
6. Non-metro with urban population of 2,500 to 19,999, adjacent to metro area	6	1.52	157,993	4.12
7. Non-metro with urban population of 2,500 to 19,999, not adjacent to metro area	3	0.76	79,563	2.08
8. Non-metro with completely rural or less than 2,500 urban population; adjacent to a metro area	0	0	0	0
9. Non-metro with completely rural or less than 2,500 urban population; not adjacent to a metro area	0	0	19,530	0.51

psychologists practiced outside of the state (one each in Arizona, California, Utah, Virginia, and Washington). Of the 26 psychologists who expressed agreement or strong agreement that they would pursue the training and become a prescribing psychologist, the vast majority (85.0%) were currently practicing in metropolitan areas. Only two psychologists who might become prescribers were currently practicing in non-metro counties, another was practicing out of state

and one did not provide information about his/her place of primary practice. Non-metro Oregon psychologists ($n = 2$; 14.3%) were no more likely than urban psychologists ($n = 22$; 7.3%) to express interest in becoming a prescriber, $\chi^2(1, n = 316) = .93$, $p = 0.33$.

As shown in Table 1, Oregon psychologists' views on scope expansion demonstrated division. While a large minority was in favor (10.9% unconditionally in favor; 32.1% generally in favor), nearly one-third of the sample was opposed (6.4% unconditionally opposed; 25.2% generally opposed) and one-quarter were undecided. As shown in Table 4, however, few psychologists reported interest in pursuing training (14.9%) and/or becoming prescribers (6.7%).

To examine whether general attitudes and desire to pursue training varied by degree, we conducted a series of chi-square and independent samples t tests. Although relatively more psychologists holding a PsyD (50%) versus PhD (39%) supported expanding scope of practice, this difference was not significant, χ^2 (2, $n = 387) = 3.57$, $p > .05$. A greater number of PsyD- versus PhD-trained psychologists expressed interest in pursuing training (20% vs. 12%), χ^2 (2, $n = 389) = 7.74$, $p < .05$, and becoming a prescriber (11% vs. 4%), χ^2 (2, $n = 382) = 8.92$, $p < .05$. Although general attitudes and the desire to become a prescriber did not significantly vary according to whether the participant reported a science background, only a limited number of psychologists ($n = 34$; 9%) reported having a science background. Only 1 of the 34 expressed an interest in becoming a prescriber. Although number of years in practice was not significantly related to general attitudes toward expanding the scope of practice to include RxP ($r = .08$), it was negatively associated with interest in pursuing training ($r = -.25$, $p < .001$) and becoming a prescriber ($r = -.14$, $p < .01$). In other words, psychologists who had been practicing longer expressed less interest in pursuing training and becoming a prescriber.

Perceived familiarity and knowledge items revealed a lack of awareness of APA historical guidelines regarding training qualifications to pursue RxP. The majority of respondents were unfamiliar with either the DoD PDP or APA training models (see Table 4). In terms of actual knowledge, only 6.3% knew which three states/territories currently have prescriptive authority, only 4.3% were knowledgeable of the three prerequisites to enter an APA psychopharmacology training program, and only 7.3% reported the correct number of contact hours that APA recommends.

In the context of moderate support for scope expansion, few psychologists (7.6%) expressed a willingness to involve themselves in legislative activity. Furthermore, survey responses often revealed conflicting attitudes regarding appropriate training models and legislative efforts. For example, although many psychologists agreed that an RxP training model should resemble a medical training model (46%) and psychologists should receive the same amount of training as other non-physician prescribers (69.2%), a minority (22%) agreed that

Table 4

Interest in Training, Prescribing, and Knowledge of Training Models

Item	*M*	*SD*	Strongly disagree	Disagree	Neither	Agree	Strongly agree
I am interested in completing the appropriate training, as recommended by the APA, for prescribing privileges.	2.09	1.17	40%	30.6%	14.5%	10.1%	4.8%
I plan to obtain the necessary training *and* plan to prescribe medication	1.87	1.02	46.9%	29.1%	17.3%	3.9%	2.8%
I am familiar with the training model of the DoD PDP	2.23	1.13	31.3%	35.6%	14.8%	15.5%	2.8%
I am familiar with the APA training model for psychologist prescription privileges	2.36	1.10	24.9%	35.7%	19.8%	17.5%	2.1%

Note. These items were rated on a 5-point scale from 1 = *strongly disagree* to 5 = *strongly agree*.
APA = American Psychological Association; DoD PDP = Department of Defense Psychopharmacology Demonstration Project.

psychologists should pursue RxP through existing licensure options. Also perplexing are attitudes reflecting a desire to better understand the issue through further research on RxP (65.8%), but a general reluctance to postpone legislative efforts until evaluation data from prescribing states are available (17%; see Table 2).

Additional attitude items that reflected common arguments for and against RxP are presented in Table 2. The most persuasive arguments for expanding the scope of practice to include RxP centered on improving access and enhancing treatment of patients. Concerns about increased professional costs (e.g., malpractice rates, education costs, identity threats) and an overemphasis on biological factors were among the most compelling arguments against extending prescription privileges to psychologists.

Participants randomly assigned to the education group showed significant gains in their knowledge across all domains; however, their opinions shifted only in these specific areas leaving their general stance on the issue unchanged. Furthermore, attitudes were still, on average, fairly neutral (see Table 5).

Discussion

Improved Access?

Proponents in the state and national efforts to gain prescription privileges argue that mental health needs are currently not adequately met because most patients lack access to psychiatric care and/or most are prescribed psychotropic medications by general practitioners with little mental health training. They argue that this is particularly problematic for mental health consumers living in rural areas. However, the current study adds to a growing evidence base that seriously calls into question the argument of improved access, especially for rural consumers. Consistent with prior studies (Baird, 2007; Campbell et al., 2006), the vast majority of psychologists sampled practiced in metropolitan areas and those practicing in non-metro areas were no more likely than urban psychologists to express an interest in pursuing prescriptive authority. Additionally, few Oregon psychologists expressed an interest in pursuing training to become prescribers; in fact, results support prior survey results of both Oregon (Campbell et al., 2006) and Illinois (Baird, 2007) psychologists in suggesting that few have an interest in pursuing training and even fewer plan to prescribe. Strong proponents of RxP themselves acknowledge that ". . . among practitioners, the notion of prescriptive authority is not universally embraced, and indeed only a minority of practitioners has evinced interest in seeking the ability to prescribe" (Fox et al., 2009, p. 257). With so few psychologists interested in pursuing training and demographic data which demonstrate similar distribution patterns for psychologists and

Table 5

Changes in Attitudes and Knowledge for Education Condition

Item	Pre-test		Post-test				
	M	*SD*	*M*	*SD*	*t*	*df*	Effect size
Expand scope to include RxP	2.91	1.09	2.90	1.10	0.13	171	.01
Benefits outweigh costs	1.86	.81	1.79	.77	2.05	173	.16
Plan to pursue training	2.03	1.12	2.06	1.15	−.45	172	−.03
Plan to pursue training *and* prescribe	1.81	.92	1.83	.98	−.37	167	−.03
Worry about legislative costs	2.58	1.02	2.92	1.08	−5.26***	173	−.40
Improving access	3.65	.85	3.13	.89	10.95***	171	.83
Contact state representative	2.05	1.06	2.05	1.02	−.14	173	−.01
APA should pursue further research	3.56	.07	3.44	1.12	1.52	173	.12
Difficulty in deciding training method	2.92	.94	3.11	.97	−2.71**	168	−.21
Increase education costs	3.74	.85	3.74	.84	.10	169	.01
Issue of economic survivability	2.50	.88	2.57	.91	−1.26	167	−.10
Familiarity with DoD PDP	2.07	1.09	2.82	1.06	−8.12***	167	−.63
Familiarity with APA RxP training	2.21	1.05	3.19	1.00	−10.30***	165	−.80
Current states/territories	.68	.90	2.76	.65	−27.15***	171	2.07
Minimum contact hours	.05	.22	.10	.30	−2.16*	171	−.17

Note. All but the last two items were rated on a 5-point scale from 1 = *strongly disagree* to 5 = *strongly agree*. The mean for current states/territories represents the average number correct (out of a possible three) and the last item represents the average number of participants (5% at pre-test and 10% at post-test) who answered between 300 and 500 hours.
APA = American Psychological Association; DoD PDP = Department of Defense Psychopharmacology Demonstration Project; RxP = prescriptive authority.
*$p < .05$. **$p < .01$. *** $p < .001$.

psychiatrists, RxP proponents' claims of improved access seem to be lacking empirical support.

Training, Background, and Preparation

Although a major argument proposed in favor of prescription privileges is that psychologists are already safely and effectively prescribing, there is little evidence to support this assumption. First, fewer than one-third of respondents agreed that RxP is a natural progression of the profession as they are already functionally prescribing. Second, although outspoken proponents suggest that prescribing psychologists are meeting the needs in underserved areas, including the military; upon closer examination, the numbers served are negligible. For example, Elaine Levine, Director of Training for the psychopharmacology training program in New Mexico stated that "about 70 psychologists in Louisiana can prescribe, and 100 in the military" (Rettner, 2012, "Prescribing Benefits," para. 7). Although the number of medical psychologists in Louisiana is accurate (currently 82; 33 in New Mexico; none in Guam or Illinois), the number of military prescribers is clearly overstated. Deborah Baker, Director of Prescriptive Authority of American Psychological Association, stated, "I don't know exactly how many psychologists—either active-duty military or civilian contractors—are currently prescribing at U.S. military installations as there is not a mechanism for tracking such data as there is at the state-level" (personal communication, June 8, 2011). Given that the APA does not track this information, inquiries revealed a much smaller number. According to P. W. Chiarelli, General U.S. Army, "only three Army psychologists currently have prescription authority" (personal communication, March 1, 2011). Similarly, C. B. Green, Lieutenant General and Surgeon General of the Air Force reported that there are three prescribing psychologists in the Air Force (personal communication, March 28, 2011). Although it is unknown how many psychologists are prescribing in the other branches of the military, the total numbers are surely less than reported by Levine. Third, although initial calls for RxP suggested that "retraining of practicing psychologists for prescription privileges would require careful selection criteria, focusing on those psychologists with the necessary science background" (Smyer et al., 1993, p. 400), there are currently no safeguards in place to ensure that psychologists who pursue post-doctoral training have any prerequisite coursework in the sciences. Similarly, legislative bills simply require the Master's of Science in Clinical Psychopharmacology ignoring the fact that the strong science foundation is not used in selecting appropriate candidates for admission. In fact, in Oregon when Senator Alan Bates, a member of the House Health Care Committee, suggested developing a Physician's Assistant track, proponents were uninterested, presumably because so few Oregon psychologists would have the necessary science coursework in order to be eligible for such programs. For

example, in our random sample of Oregon psychologists, few majored or minored in the sciences and only one with a biology background in college expressed an interest in pursuing RxP.

Although psychologists working to pass RxP legislation seem relatively unconcerned about adequate preparation and training, psychologists surveyed in the current and past studies (Baird, 2007) overwhelmingly support the notion that prescribing psychologists should receive the same amount of training as other non-physician prescribers. Even though less than half of the psychologists surveyed indicated that RxP training should resemble a medical training model, there is broad consensus for legitimate training. This stands in stark contrast to training program materials and champions of RxP who continue to advocate for efficiency in training and lowered costs at the expense of shrinking rigor. For example, in a syllabus for a course taught at New Mexico State University titled "A Systemic View of Drug Groups for Treating Psychological Disorders," it is acknowledged that this truncated schedule may shape course coverage of material: "We will cover as many drug classes as we can in the time allotted" (Hoffman, 2011). Similarly, at the 2013 APA convention in Honolulu, Beth Rom-Rymer, a leader in the RxP movement in Illinois, along with Michelle Nealon-Woods, discussed a model pre-doctoral joint degree program that would allow students to pursue their PsyD simultaneously with the MS in Clinical Psychopharmacology. Despite the fact that the APA's (2009) own guidelines suggest that no more than 20% of the psychopharmacology training can be accrued pre-doctorally, they vigorously defended the benefit of such a program which would allow interested students to more efficiently complete training. In fact, at the APA 2013 convention, Rom-Rymer acknowledged that the current Illinois legislative bill purposefully did not require that interested psychologists graduate from an accredited program, nor complete the psychopharmacology training post-doctorally. At a time when respected psychologists (Baker, McFall, & Shoham, 2009) have expressed concern about the quality of pre-doctoral training to the point of establishing new accreditation standards, this joint degree program proposal seems not only to heighten concerns about RxP training, but also raises questions about compromised social science training. Interestingly, the 2014 bill that passed both chambers and was recently signed by the Governor of Illinois bears little resemblance to earlier versions of bills proposed over a 12-year period in that state or to the New Mexico or Louisiana prescribing laws. Prescribing psychology training requirements in Illinois resemble those proposed for physician's assistants, including prerequisite science education (i.e., 1 year of full-time undergraduate coursework in the basic sciences), more than 3 years of graduate-level study—six semesters of 9 hours plus a seventh semester of 6 hours, and a 14-month full-time practicum or 36 semester hours, whichever takes longer. Once training is complete, the prescribing psychologists in Illinois will be allowed to prescribe in a limited fashion (i.e., collaborative agreement with a physician;

only for patients between the ages of 18 and 65 who are not pregnant or seriously ill; limited formulary which will *not* include benzodiazepines, any Schedule II medications, and only limited Schedule III–V controlled substances that can be prescribed). Future research should examine prescribing patterns and patient outcomes across states with these quite different levels of training.

Fighting a Turf Battle or Internal Division and Disinterest?

The current results reflected more division than in prior recent surveys, with relatively more equal numbers of psychologists supporting (43%), opposing (32%), or reporting being undecided (25%) in their views about prescription privileges for psychologists. Whether this reflects a shift in support consistent with earlier survey data (Chatel et al., 1993; Evans & Murphy, 1997) or a pattern unique to Oregon psychologists is unclear. However, consistent with past research (Baird, 2007; Campbell et al., 2006), the support is relatively shallow with fewer than 15% expressing interest in pursuing the training and even fewer planning to pursue training and becoming prescribers (7%). In the context of survey data collected from Pennsylvania psychologists between 1997 and 2011 that indicated fairly broad support for RxP but continuous low prioritization of RxP for legislative action (Knapp & Bowers, 1997; Knapp et al., 2013), the current data similarly signal a lack of enthusiasm with few Oregon psychologists showing interest in pursuing the training to become a prescriber and similarly low numbers expressing a willingness to be involved in legislative efforts (7%). Again, this underwhelming commitment and interest are not consistent with a policy shift that would significantly impact access to psychiatric care.

Which Arguments are Persuasive? What Do Psychologists Know? Does Education Matter?

Arguments in favor of prescription privileges garnering the most support among psychologists related to perceptions of improved access and treatment enhancement. In contrast, the arguments that created the most concern about RxP involved professional issues. Other arguments failed to be compelling or were met with mixed responses. These views underscore the complexity and discord in beliefs toward prescription privileges. When combined with findings suggesting low levels of RxP knowledge, little evidence that RxP will improve access, and increased recognition that this is not the solution to meet unmet psychiatric needs when presented with data about current prescribers, the results highlight the need for more education that will help psychologists more fully understand the issues involved with RxP.

Prior studies that surveyed psychologists regarding their views of scope expansion appear to assume that participants' attitudes are informed by a clear

understanding of the issue. The current findings call this assumption into question with nearly two-thirds of the sample reporting they were not familiar with the DoD PDP or the APA training model. These numbers suggest even less knowledge than in the only other published study of psychologists to inquire about familiarity with RxP training (Baird, 2007). Knowledge of which states currently allow psychologists to prescribe was even more limited than in an unpublished national survey of doctoral students (6% vs. 22%) conducted by Simpson and Kluck (2007). Similarly, responses indicated that fewer than 10% of psychologists in the current study and students in an unpublished prior study (Simpson & Kluck, 2007) were knowledgeable about the requirements to obtain RxP. Such low levels of basic knowledge of RxP seem to suggest caution in arguing that "support" for the initiative should signal investment of resources to lobby for RxP as this support is likely qualified by inaccurate impressions about what training should entail. In fact, some data would suggest that most might be assuming more rigorous training than is currently recommended (e.g., nearly one-half agreed that RxP training should resemble a medical model and nearly three-quarters believed that training should be equivalent to other non-physician prescribers).

Consistent with past research (Baird, 2007; Knapp et al., 2013; Simpson & Kluck, 2007), the current findings highlight a pattern of lack of knowledge, low interest in advocacy, and conflicting attitudes about RxP. Although there was broad agreement that training should be commensurate with other prescribers, less than one-quarter agreed that psychologists should use existing pathways toward licensure. Similarly, although nearly two-thirds expressed a desire to understand the issue through more research, less than one-fifth agreed that RxP initiatives should wait until evaluation data from current prescribers are available. This mixed picture suggests the need to provide professionals and students with basic information about RxP. Whether that knowledge will translate into changed views is one of the unique questions addressed in the current study.

Although participants assigned to the education condition evidenced significant increases in knowledge, changes in attitudes were circumscribed to those specific areas that were targeted. These data, which suggest limited and focused change, stand in contrast to prior exploratory work (Pimental et al., 1997), which found that education led to broad-scale changes in support of prescriptive authority. Discrepancies may be explained by a variety of factors. First, we recruited a large and random sample of Oregon psychologists whereas Pimental et al. employed a small, convenience sample of attendees at the IPA convention. Second, they used a pre-post design that also included a 3-year retrospective report whereas the current study randomly assigned participants to the education condition in an attempt to measure immediate changes in knowledge and attitudes after exposure to information and data. A final difference lies in the nature of the "education" provided.

Whereas the current study provided objective facts about training, legislative history, and demographic information about where current prescribing psychologists were working, the session agenda at the IPA convention included historical reviews, task force updates, and a review of proposed training models by major proponents of the RxP movement. They argued that "perhaps psychologists who are initially ambivalent but curious learn more about the prescriptive authority option and become more supportive when they are fully informed" (p. 126). In point of fact, given emerging data which call into question the degree to which most psychologists are informed about this issue, the self-selected nature of the sample, the sources of prior information (nearly exclusively IPA and APA both of which are pro-RxP), and the fact that only experts from one side of the debate presented information, it is likely more accurate to propose that individuals were moved to reaffirm their position to align with existing cultural values (Kahan, 2010).

Kahan defines "cultural cognition" as the influence of cultural values on information processing such that individuals tend to reject or emphasize information based on the extent to which it threatens or affirms their cultural values (Kahan, 2010). Kahan suggests that "on issues ranging from climate change to gun control, from synthetic biology to counter-terrorism, they take their cue about what they should feel, and hence believe, from the cheers and boos of the home crowd. But unlike sports fans watching a game, citizens who hold opposing cultural outlooks are in fact rooting for the same outcome: the health, safety and economic well-being of their society" (p. 297).

In fact, in a series of pioneering studies Kahan et al. have demonstrated that the value-based context is more critical in understanding how attitudes are changed or affirmed than the evidence provided. For example, in order to understand polarized opinion regarding mandatory Human papillomavirus (HPV) vaccination of young girls, they found that participants became even more intensely opposed to mandatory vaccination when they were exposed to experts who were perceived as hierarchical/individualistic criticizing the Centers for Disease Control's (CDC) recommendation. Similarly, participants became even more supportive of this policy when they were presented with an expert perceived as egalitarian who defended the CDC's stance that the vaccine is safe. In contrast, when they inverted the expert-argument pairings (support by the hierarchical expert and opposition by the egalitarian one), positions shifted and polarization dissipated (Kahan, Braman, Cohen, Gastil, & Slovic, 2010). In the current study, we purposefully presented data on training, legislative history, and demographic patterns of prescribing psychologists in a way that did not attempt to persuade or assert our position. As anecdotal evidence of support, we had an equal number of complaints by participants that we were biased in favor or in opposition, with most accepting our stated goal of wanting to simply understand the psychologists' views and knowledge. In this belief-neutral context, we saw circumscribed

change in views including: increased difficulty in deciding about training methods, increased worry about legislative costs, and decreased belief that RxP would improve access to psychiatric care. That this gained knowledge did not lead to change in more general views about the scope of practice is perhaps not surprising, given the range of social cognitive factors that operate in affecting attitude change (Cacioppo, Petty, & Crites, 1994) and the culture within the APA which consistently disseminates pro-RxP information and discourages opposition and debate. In fact, this background culture may explain how the one-time provision of information failed to affect broader attitudinal change in the face of abundant messages within the profession promoting RxP. In future work, paying attention to the role that cultural cognition might play in this debate seems important. There are clearly two camps that present polarized messages (pro vs. con), are perceived as belonging to different cultural groups (scientists vs. practitioners), and rarely engage in open debate with both sides commenting on the available evidence and information.

In fact, in an effort to educate professionals on this issue in a way that promotes open-minded consideration of the current scientific evidence, the following advice by Kahan et al. should be heeded: (1) include a diverse range of experts who disseminate scientific evidence so that individuals will be more apt to consider a range of evidence and (2) carefully consider the ways in which these diverse experts' language may polarize if they threaten and affirm diverse audience values. Future work should more thoroughly investigate the nature of the cultural values (i.e., professional roles—practitioner vs. scientist, educational degree—PsyD vs. PhD, other factors—e.g., luddite vs. cutting-edge or evolving) that may fuel divergent thinking on this issue and the degree to which a shift in presentation of scientific information may make people more open-minded in their consideration of the data.

Summary and Conclusion

In contrast to ardent supporters who argue that their "data should provide reassurance to psychologists spearheading legislative initiatives" because of high approval ratings (Sammons et al., 2000, p. 608), our data suggest disagreement among a group of professionals who are not particularly well-informed, nor willing to undergo training to become a prescriber. Our relatively high response rate in comparison with past surveys (e.g., 21% in Sammons et al.) may explain the greater discrepancy in expressed views, given that a broader range of views were surveyed. Overall, these findings suggest that legislative efforts should be mindful of the controversy within the field and the low numbers of professionals interested in pursuing prescription privileges which undercut arguments that granting psychologists prescriptive authority will lead to improved access and enhanced patient care.

Another strength of the current project lies in its focus on knowledge and exploration of whether education can change both knowledge and attitudes among member of this professional group. In light of the findings, which suggest that psychologists are relatively uninformed (and most are disinterested in the issue), divided in their views, and change specific attitudes when provided with unbiased information by a neutral source, it is surprising that some proponents are overly dismissive of those opposed to RxP (e.g., characterizing them as "fringe" to legislators). For example, Sammons et al. (2000) have suggested "that the usefulness of organized debates or other public forums devoted to dissecting the issue has become limited" and "that to wait until all have been converted serves no purpose but results in immobility" (p. 608). In point of fact, when considering the amount of time, money, and effort invested in the RxP movement, now is the time to carefully evaluate those who have been prescribing and to create open dialogue that will allow professionals to move away from the two camps who hold opposing cultural viewpoints and instead recognize that they need to evaluate existing evidence toward understanding how best to achieve the shared desired outcome: improve mental health outcomes for those most in need.

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Appendix A

Information regarding demographic distribution patterns for prescribing psychologists in and New Mexico that were presented to Oregon Psychologists who were assigned to the education condition.

Distribution of psychologists authorized to prescribe medications in Louisiana

Rural continuum codes	Louisiana	Percentage	Populace	Percentage
1 = County in metro area with 1 million population or more	6	9.7%	1,316,510	29.5%
2 = County in metro area of 250,000 to 1 million	24	38.7%	1,081,938	24.2%
3 = County in metro area with fewer than 250,000	20	32.3%	942,219	21.1%
4 = Non-metro county with 20,000 or more, adjacent to metro area	2	3.2%	522,762	11.7%
5 = Non-metro county with 20,000 or more, not adjacent to metro area	0	0%	0	0%
6 = Non-metro county with population 2,500–19,999, adjacent to metro area	1	1.6%	483,625	10.8%
7 = Non-metro county with population 2,500–19,999, not adjacent to metro area	0	0%	81,510	1.8%
8 = Non-metro county completely rural or less than 2,500, adjacent to metro area	0	0%	10,560	0.2%
9 = Non-metro county completely rural or less than 2,500, not adjacent to metro area	0	0%	29,852	0.7%
Out of state*	9**	14.5%		
Total	62		4,468,976	

*Out of state means they are licensed in Louisiana but are no longer practicing in the state.

**One medical psychologist in Louisiana is "out of state" but also licensed as a prescriber in New Mexico; this psychologists' information regarding practice can be found in the New Mexico data; thus, there are actually 61 medical psychologists licensed in Louisiana.

Distribution of psychologists authorized to prescribe medications in New Mexico

Rural continuum codes	New Mexico	Percentage	Populace	Percentage
1 = County in metro area with 1 million population or more	0	0%	0	0%
2 = County in metro area of 250,000 to 1 million	9	37.5%	729,649	40.2%
3 = County in metro area with fewer than 250,000	5	20.8%	417,775	23.0%
4 = Non-metro county with 20,000 or more, adjacent to metro area	0	0%	137,096	7.6%
5 = Non-metro county with 20,000 or more, not adjacent to metro area	2	8.3%	213,595	11.8%
6 = Non-metro county with population 2,500–19,999, adjacent to metro area	0	0%	171,618	9.5%
7 = Non-metro county with population 2,500–19,999, not adjacent to metro area	2	8.3%	133,366	7.4%
8 = Non-metro county completely rural or less than 2,500, adjacent to metro area	0	0%	5,180	0.3%
9 = Non-metro county completely rural or less than 2,500, not adjacent to metro area	1	4.2%	3,543	0.2%
Out of state*	5	20.8%		
Total	24**		1,814,872	

*Out of state means they are licensed in New Mexico but are no longer practicing in the state.

**Two New Mexico psychologists have two practices in different areas (one in 2 and 3; the other in 7 and 9); thus the actual number of New Mexico psychologists is actually 22.

Combined Distribution of Psychologists Authorized to Prescribe Medications in New Mexico, Louisiana, and Guam

*Note: There are no prescribing psychologists practicing in Guam despite legislation being passed granting prescriptive authority to psychologists in 1999.

Appendix B

Information presented to Oregon psychologists who were assigned to the education condition regarding post-doctoral training

Post-Doctoral Training in Clinical Psychopharmacology

Criteria for admission:

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

Average Program

The table 4 from McGrath (2010) presents two of the approximately ten training programs offering training in psychopharmacology for prescriptive authority that is purportedly based on the APA training model. McGrath compares these two programs to the Department of Defense's (DoD) Psychopharmacology Demonstration Project (PDP). An average cost, in terms of tuition and fees for these 2-year programs are also provided. [Note that table 4 from McGrath (2010) was used with permission and presented directly to education participants].

Average cost: $15,040

In addition, *supervised clinical hours* are required in order to attain competency in the following areas. Although the exact number of patient hours needed to achieve mastery of clinical competencies may vary across individuals, the clinical experience is expected to be substantial and in past models has included a minimum of 100 patients seen for a psychopharmacology examination.

APA Recommended Postdoctoral Education and Training Program in Psychopharmacology for Prescriptive Authority (Approved by APA Council of Representatives, 2009)

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.

Appendix C

Information regarding legislative history that was provided to participants in the education condition

Matrix Showing History of Legislative Efforts toward Prescriptive Authority for Psychologists since 1995

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alaska					X	X										
Arizona								^	^						X	X
California	X	X	X	X		X							X	X		
Connecticut							X				X	X				
Florida			X	X					X							
Georgia				X	X	X	X	X	X	X	C	X	X			
Guam					@											
Hawaii		X	X	X			X	X	X		Z	J	B	X	C	J
Illinois					X	X	X	X	X	X	X		X		X	X
Louisiana			Z		Y		X			@						
Maine									^	X						
Missouri		X	X	Z	X	X	X				X	X	X	Z	X	
Mississippi													X	X	X	X
Montana	X												Z		X	
Nebraska								~								
New Hampshire									X	X	X**					

Appendix C

continued

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
New Mexico							H	@			J					
North Dakota															X	
Oklahoma										S						
Oregon									X		X		X		C	B
Tennessee			X	X	X	X	X	X	X	X	C	X	X	X	X	
Texas							X		X						X	
Wisconsin	~														A	
Wyoming									Z		X					
Virgin Islands													X			A

A = Bill in current legislative session.
X = Legislation introduced; died in committee.
J = Legislation passed House; died in Senate committee.
H = Legislation passed House; died on the Senate floor.
S = Legislation passed Senate; died in House committee.
B = Legislation passed House; passed Senate; vetoed by Governor.
Z = Legislation approved by one committee; bill either died or defeated on floor.
Y = Legislation approved by committees in both chambers; never considered on either floor.
C = Legislation carryover to next regular legislative session.
∧ = Legislative proposal presented to interim committee; eventually withdrawn.
~ = Legislative proposal was "floated" by a state agency; eventually halted.
@ = Legislation passed and signed by the Governor.
** = Precursor bill.
Source: American Psychiatric Association.

Prescriptive Authority and Psychology A Status Report

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Prescriptive Authority and Psychology

A Status Report

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The progress of psychology toward the acquisition of prescriptive authority is critically reviewed. Advances made by other nonphysician health care professions toward expanding their scopes of practice to include prescriptive authority are compared with gains made by professional psychology. Societal trends affecting attitudes toward the use of psychotropic medications are reviewed, and the potential influence of such trends on the prescriptive authority movement is examined. A history of the prescriptive authority movement is documented, and recent legislative and policy initiatives are discussed.

Keywords: prescriptive authority, advocacy, history of psychology, legislation

With each passing year, the scope of practice and the number of nonphysician health care providers (NPHCPs) continue to grow. Although such advances have not been as spectacular in the past five years as they have in previous years for most groups (e.g., advanced practice registered nurses; APRNs), all groups can point to steady progress toward the goal of a scope of practice that is truly independent of that of other professions. Even among physician assistants (PAs), who do not profess to seek practice independent of physician oversight, growth in specialty areas and broadening of supervisory standards make them increasingly autonomous providers. As was predicted nearly a decade ago, the number of nurse practitioners (NPs) and PAs has now exceeded, by a considerable margin, the number of physicians practicing in similar primary care fields.

The profession of psychology, on the other hand, has not experienced such robust success, particularly in its efforts to acquire independent prescriptive authority. It has been over 20 years since Senator Daniel K. Inouye of Hawaii first called for psychologists to obtain this ability, and over 15 years since the first organized training program was instituted, yet prescriptive authority for psychologists has been fully realized in only two states. The first bill seeking to authorize psychologists to prescribe was introduced in the state of Hawaii in 1985. Hawaii Senate Resolution 159 sought to establish a study of the "feasibility of allowing licensed psychologists to administer and prescribe medication in the treatment of nervous, mental and organic brain disorders." Since then, 88 prescriptive authority bills have been introduced in 21 jurisdictions. Only in Louisiana and New Mexico have psychologists achieved this right, although legislation or regulation allowing some form of prescriptive activity also exists in the territory of Guam and the state of Indiana.

In our view, several reasons may account for this slow rate of growth. Our profession, unlike other NPHCP professions, has clear divisions between its practice and academic branches, leading to an absence of unity in advocacy issues. Even among practitioners, the notion of prescriptive authority is not universally embraced, and indeed only a minority of practitioners has evinced interest in seeking the ability to prescribe.

Also, we believe that a vigorous internal debate regarding the place of psychotropics in the treatment of mental disorders mirrors that taking place in the community at large and likely hinders greater unity in legislative and advocacy efforts. It is our opinion that arguments against prescriptive authority from within the profession are based on concerns regarding the overuse of psychotropics, the substitution of psychotropics for verbal or behavioral therapies, and general concerns about the efficacy of psychotropics.

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The views expressed by Debra L. Dunivin are hers alone and do not reflect the position of the U.S. Army or the Department of Defense.

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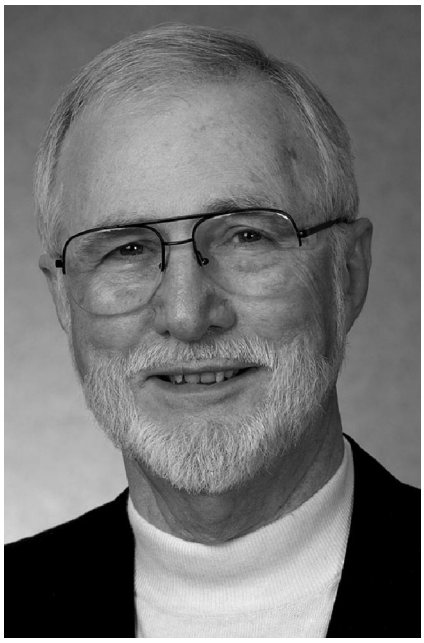

Ronald E. Fox

Among all the disciplines whose members include NPHCPs who prescribe, psychology has the core curriculum with probably the least overlap with traditional medical curricula. Although the dissimilarity between a medical and a psychological education does not imply that prescriptive authority is inherently foreign to the profession of psychology, those opposed to its acquisition have successfully used those differences to hinder legislative approval for psychologists prescribing.

In this article, we describe both the successes that the profession of psychology has achieved in acquiring prescriptive authority as well as the slow and arguably faltering pace with which these gains have been realized. We examine the prescriptive authority movement in the context of other trends within the profession, advances in the scope of practice of other NPHCP groups, and societal trends that affect the treatment of mental disorders.

Societal and Professional Trends Affecting the Prescriptive Authority Movement

The prescriptive authority initiative in professional psychology takes place during a time of great upheaval in our thinking regarding the appropriate use of psychotropics in the management of mental distress. Professional and societal events beginning in the late 1980s have paralleled and profoundly influenced the efforts by the profession to incorporate prescriptive authority. Progress and setbacks to the goal of acquiring the ability to prescribe cannot be completely understood without appreciating these societal trends.

Although there had long been concerns expressed by all categories of mental health professionals, including psychiatrists, at the primacy that drugs had assumed over psychotherapy since the 1960s (viz. Lewis, 1991), we identify three separate occurrences in the 1980s that began a cascade of events that has led to the current unsettled state of affairs regarding the use of psychotropics. The first of these was the introduction of the serotonin selective reuptake inhibitor (SSRI) class of antidepressant, with fluoxetine in 1987. The second was the publication of a landmark comparative outcomes study of psychotherapy, medication, or a combination of both in the management of depression, the National Institute of Mental Health's Treatment of Depression Collaborative Research Program (TDCRP; Elkin et al., 1989). The third, and by far less recognized in terms of its overall influence, was the initial publication of a series of investigations highlighting a robust placebo effect associated with antidepressant treatment (Greenberg & Fisher, 1989). It is useful to briefly examine the societal and professional influence of each of these events.

Fluoxetine, first marketed in the United States as Prozac in 1987, irretrievably altered the landscape of mental health treatment. The introduction of an antidepressant that lacked the toxicity and cumbersome clinical requirements of the tricyclic antidepressants (TCAs, then the most commonly prescribed class of antidepressant) pushed the pharmacological treatment of depression out of the realm of psychiatry and into the realm of general medicine. Physicians who were previously reluctant to prescribe drugs that had narrow therapeutic indices and required close clinical monitoring embraced the use of an agent that could be given relatively safely on a loosely supervised outpatient basis. The rate of prescription of antidepressants skyrocketed, and fluoxetine gained an unprecedented, some might describe as near cultlike, prominence among those suffering from, and treating, depression. In the early 1990s, Prozac was purported to be the "hot yuppie upper" by *Rolling Stone* magazine (see also Wurtzel, 1995), and the *New York Times* declared that the millions of Americans taking it constituted a "legal drug culture" (Rimer, 1993). Between 1985 and 1999, when most of the SSRIs and other newer antidepressants were introduced, the number of drugs prescribed during a medical visit increased 59%. Antidepressants accounted for more of this increase than did any other class of medication, accounting for 13.5% of the observed increase. Tellingly, visits to psychiatrists saw the greatest increase in number of prescriptions, with a rate increasing from 82 to 178 per 100 visits (Burt, 2002). The ease of availability of effective antidepressants was initially touted as a boon in the management of this difficult and recurrent disorder, but it soon became clear that this benefit was accompanied by concerns regarding not only the overprescription of antidepressants but also significant unwanted consequences of their use, including troublesome side effects (lack of affective responsivity, suppression of sexual appetite) and rarer but more troublesome events including aggressive or suicidal behavior. Such concerns have grown to the point that currently, much of the antidepressant literature is focused less on their efficacy in managing the disorder than on their problematic unwanted effects, particularly in children and adolescents. Although

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the total number of prescriptions written for antidepressants continues to rise (IMS Health, 2007), recent declines in the rate of prescription of antidepressants (Medco, 2006), a trend especially noted among children and adolescents (Katz et al., 2008), can primarily be ascribed to safety concerns but may also be reflective of mounting evidence of their uncertain efficacy in treating chronic depression (viz., Rush et al., 2006).

At about the same time that the SSRI-fueled boom in drug treatment of depression began, the relative efficacy of pharmacological and nonpharmacological management of depression began to receive serious scientific attention. The TDCRP was a highly influential study that examined response to various treatments in persons with depression. The authors concluded that any of the forms of treatment offered (interpersonal psychotherapy, cognitive behavioral therapy, antidepressant medication plus clinical management, or placebo plus clinical management) were effective in the management of depression, with antidepressant medication plus clinical management tending to do somewhat better than the psychotherapy conditions. The study has been the subject of well over a decade of subsequent analysis and research, with proponents of both pharmacological and nonpharmacological therapy arguing that their findings supported one or the other form of intervention (e.g., Blatt, Quinlan, Pilkonis, & Shea, 1995; Elkin et al., 1989; Jacobson & Hollon, 1996; Stewart, Garfinkel, Nunes, Donovan, & Klein, 1998). In general, however, the TDCRP established the equivalence of drug and nondrug treatments. The findings of the study and reanalyses of the data set have been used to buttress arguments both for and against the use of pharmacology in the management of depressive conditions, in addition to serving as a platform for further investigations into the efficacy of combined approaches to treatment.

Finally, the awareness of a substantial placebo effect associated with antidepressant treatment has influenced the debate. As noted above, the influential observation by Greenberg and Fisher (1989) of a robust placebo effect associated with antidepressant use has been widely validated (e.g., Khan, Redding, & Brown, 2008; Moncrieff, 2001; Walsh, Seidman, Sysko, & Gould, 2002). Currently, the existence of a placebo response rate in antidepressant treatment averaging 30%–35% is generally accepted. Within the psychiatric profession, the notion of a substantial and reproducible placebo response was initially viewed as anathema (Preskorn, 1996). Although the profession continues to reject, with good reason, the overdrawn conclusion that the utility of antidepressants is gravely compromised by a placebo response, the issue has become one of serious debate and investigation (Quitkin, Rabkin, Gerald, Davis, & Klein, 2000). Those opposed to prescriptive authority for psychologists have used placebo response data as a rationale for why psychologists should not seek to acquire this skill set.

A burgeoning literature assessing the efficacy of antidepressants has led to an increased awareness among clinicians of the limits to pharmacologic treatment of depression. This awareness, coupled with the facts that most commonly prescribed antidepressants have in the past several years lost patent protection and that there are few new promising antidepressants in the drug development pipeline, has led some to speculate that the "antidepressant era" may be coming to a close. These factors, combined with resultant changes in professional and societal attitudes toward the use of antidepressants, have changed the cultural context in which the prescriptive authority debate is taking place.

Advances in the Scope of Practice of Other Nonphysician Healthcare Provider Groups

Nurse Practitioners

Organized nursing continues to make significant advances in expansion of the scope of practice of nurses. This has been a source of major concern for physician practice groups, such as the American College of Physicians, who observe that the expanding roles of NPHCPs often overlap with those of physicians but point out that there have been

> no clinical trials, no cost data, no outcomes data, and little evidence that access has been improved for the underserved. Despite this lack of data, states are continuing to expand the scope of practice of the non-physician clinicians. . . . There has been little or no research on collaborative practice to provide models that physicians might adopt. (American College of Physicians–American Society of Internal Medicine, 2000, p. 11)

Physician groups continue to raise concerns that the practice of NPHCPs has not been conclusively demonstrated to be safe or effective (e.g., American Medical Association, House of Delegates, 2006). As has been observed elsewhere, however, this argument is traditionally raised when NPHCPs attempt to expand their scopes of practice (Levant

Russ Newman

& Sammons, 2002). There is no evidence to suggest the contrary, and in the absence of data confirming variance in safety or efficacy between physicians and nonphysicians, no such variance can be presumed to exist.

NPs can now prescribe medications in all 50 states and the District of Columbia. They have completely independent prescriptive authority for all medications, including controlled substances, in 14 states and prescriptive authority for all classes of medication with some physician involvement in another 33 states (Phillips, 2007). Although these figures indicate continued success for attempts to expand nurses' scope of practice, these initiatives have faltered somewhat in the past five years. In 2001, for example, NPs had independent prescriptive authority in 13 states and physician-involved prescriptive authority in 32 (Pearson, 2002). A net gain of only one state in each category over five years may indicate that physician legislative counterinitiatives have been more successful than in the past or perhaps that nurses are not choosing to expand their authority further at this time. But even though the rate of rise of states allowing completely independent prescriptive authority has slowed, there are now approximately 168,000 NPs in the United States (Phillips, 2006), a number that does not include other nurses with advanced qualifications, such as certified registered nurse anesthetists. Combining NPs and another group of midlevel providers, PAs, suggests that the numbers of such practitioners are on track to exceed that of primary care physicians in the not too distant future. There are approximately 250,000 PAs and NPs in clinical practice in the United States at the time of this writing, compared with approximately 306,000 primary care allopathic physicians (medical and osteopathic doctors; U.S. Department of Health and Human Services, 2006). Consistent with projections made a decade ago (Cooper, Laud, & Dietrich, 1998), the number of such practitioners has not only met but exceeded the number of physicians in primary care. In 2005, there were 118,360 general and family physicians in practice and 59,750 general pediatricians (U.S. Department of Health and Human Services, 2006).

Physician Assistants

The issue of the scope of practice of PAs is somewhat more complex. PAs define themselves as complementary to physicians; therefore, their professional scope is dictated by the physician with whom they practice. Although the complementary definition of the physician–PA relationship apparently remains the position of the American Academy of Physician Assistants (AAPA, 2008a), that association is simultaneously moving actively to expand the scope of practice of PAs (Wing, Langelier, Salsberg, & Hooker, 2004). PA practice is growing in clinical areas other than primary care, and the AAPA is challenging the right of physicians to limit the practice of PAs.[1] It seems clear that the role is evolving from one of assistant to one of competitor, as illustrated by an AAPA issue brief exploring antitrust issues involved in denial of hospital privileges for PAs:

> Both the services provided by the professionals and the geographic proximity of the professionals are relevant in determining whether they are competitors. If patients (or payers) consider two professionals as alternatives for rendering care or entering into a contract, these professionals are probably competitors for purposes of antitrust analysis. If different types of health care professionals can perform the same or comparable services within the scope of their respective licenses, they should be considered competitors for such services. Thus, in certain circumstances, a PA may be a competitor not only to other PAs, but also to physicians, nurses, nurse practitioners, etc. (AAPA, 2001, para. 10)

In 2008, PAs provided over 257 million patient visits and wrote a total of approximately 332 million prescriptions associated with those visits (AAPA, 2008a). In 2008, approximately 73,893 PAs were eligible to practice (AAPA, 2008a). In 2008, PAs were authorized, with varying degrees of physician supervision, to prescribe in all 50 states, the District of Columbia, and Guam and are restricted to a limited formulary in only 10 of those states (AAPA, 2008b). Although PAs are technically practicing under physician supervision, the degree of latitude such an arrangement gives PAs typically tends to be broad, and the distinction between PAs and other mid-level practitioners who do not practice under physician supervision, such as NPs, is increasingly blurred (AAPA, 2008c).

[1] According to a November 2008 issue brief posted on the AACP website, "What has not changed is the PA profession's commitment to team practice, with the physician as the captain of the team. Since the inception of the profession, this has remained constant. PAs are now found in many settings, but the role they play in physician-directed care is identical to the vision of the physicians who created the profession" (AAPA, 2008c, p. 3).

Morgan T. Sammons

Optometrists

The profession of optometry has also seen its practitioners' scope of practice expand substantially over the past four decades. Beginning with the passage of legislation in the state of Rhode Island in 1971, optometrists have expanded their scope of practice to include therapeutic as well as diagnostic (i.e., agents used for pupillary dilation) drugs in all U.S. jurisdictions. Optometrists now treat glaucoma in 49 states plus the District of Columbia and Guam; prescribe systemic (oral) medications in 47 states, the District of Columbia, and Guam, including the ability to prescribe controlled substances in 43 states and Guam; and utilize injectable agents in 32 states plus the District of Columbia (American Optometric Association, 2008). Optometrists have been remarkably successful in this endeavor. Since 1971, 173 laws expanding optometrists' ability to prescribe or treat ocular disorders have been enacted; none have been repealed. More recently, optometrists have been successful in adding primary care surgical procedures to their scope of practice. Legislation passed in New Mexico in 2007 (State of New Mexico, Senate Bill 367, 2007) allows optometrists to perform a number of procedures, some involving the use of a scalpel. This law followed a law enacted in Oklahoma in 1998 and amended in 2004 (Oklahoma Optometry Practice Act, 2001) establishing the broadest surgical privileges, including the use of laser technology, currently authorized by a state legislature for optometrists. Although less succinctly defined legislatively, more limited authority for surgical procedures has been enacted in a number of other states. Optometrists in every jurisdiction have statutory authority to perform and routinely bill for certain services defined as surgical by the American Medical Association's Current Procedural Terminology (CPT) codes (Sherry Cooper, American Optometric Association, personal communication, November 17, 2008).

Dentists and Other NPHCPs

Other NPHCPs also continue to expand their traditional scope of practice into areas previously considered to be restricted to the medical profession. In a legislative development that was closely watched by professional organizations, in September 2006, oral and maxillofacial surgeons secured passage of legislation in the state of California allowing them to perform plastic surgery procedures, and in the state of New York, legislation was introduced to allow qualified dentists to perform procedures outside the mouth or oral cavity (American Association of Oral and Maxillofacial Surgeons, 2006). There are now approximately 34,000 certified registered nurse anesthetists in the United States, who administer 65% of all anesthetics delivered in this country (American Association of Nurse Anesthetists, 2006). Doctors of podiatric medicine have also become increasingly specialized and are actively engaged in expanding their scope of practice, as exemplified by a current lawsuit in the state of Texas to include the ankle in the area of practice of podiatrists (*Texas Orthopaedic Association et al. v. Texas State Board of Podiatric Medicine et al.,* 2008). Pharmacists continue to expand their scopes of practice. As of 1999, 24 states allowed some kind of collaborative practice agreement with physicians delegating aspects of patient management to pharmacists, and although physician organizations still oppose the right of pharmacists to independently prescribe, the profession is rapidly developing numerous subspecialty areas, including psychiatric medication management (American College of Physicians–American Society of Internal Medicine, 2002).

Coalition for Patients' Rights

A development of interest in the ongoing push to expand the scope of practice of NPHCPs is the establishment in 2006 of an umbrella group, the Coalition for Patients' Rights. The establishment of this group was initiated by the American Nurses Association. It consists of over 35 nonphysician professional organizations, and it was organized to counter a scope of practice initiative led by the American Medical Association and other specialty physician organizations that was perceived as being designed to limit patients' choices of and access to healthcare providers and to limit the type of care rendered by NPHCPs (Coalition for Patients' Rights, 2008; Nelson, 2006). The American Psychological Association and the American Nurses Association are members of this coalition; the American Academy of Physician Assistants is not. The ability of this entity to effectively represent the interests of a diverse number of nonphysician professions has not yet been adequately tested.

The Advancement of Prescriptive Authority Within the Profession of Psychology

Approximately a decade and a half ago, DeLeon, Fox, and Graham (1991), each of whom would ultimately serve as

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president of the American Psychological Association (APA), noted, "there has been a growing interest among psychology practitioners in obtaining prescription privileges, and relevant policy documents have reflected increasing support from the APA" (p. 384). The APA Council of Representatives had recently voted to establish a task force on prescription privileges (RxP) for psychologists. This was at a time of significant and evolutionary change occurring within the nation's health care system, as other NPHCPs were expanding their scopes of practice to include prescriptive authority. Optometrists, for example, had obtained this responsibility for diagnostic purposes in all states, and NPs could prescribe in 28 states. The year prior to Council's action, the APA Board of Professional Affairs (APA, BPA, 1989) had held a special retreat meeting on the topic, inviting various outside experts. The BPA subsequently took the position that it

> strongly endorses the immediate research and study intervention feasibility and curricula development in psychopharmacology for psychologists in order to provide broader service to the public and to address more effectively the public's psychological and mental health needs. And [it] strongly recommends moving to the highest APA priority a focused attention to the responsibility of preparing the profession of psychology to address the current and future needs of the public for psychologically managed psychopharmacological intervention. (BPA, quoted in DeLeon, Fox, & Graham, 1991, p. 391)

DeLeon et al. (1991) noted,

> As one might imagine, whenever one of the nonphysician disciplines has sought prescription privileges, the particular medical specialty group involved, and organized medicine in general, have argued vigorously that allowing such practice by nonphysicians would result in a public health hazard (i.e., that patients would inevitably be harmed). Interestingly, objective studies of the prescription patterns of nonphysician health care providers clearly suggest just the opposite. . . . The political–public-policy debates surrounding the prescription issue have been highly emotional, confrontational, and, above all, lacking in specifics. There has been little reliance on objective data or reasoned analyzes[sic] of, for example, the training experiences necessary for a practitioner to understand the effect of specific medications on patients. With rare exceptions, those engaged in these policy debates have not discussed the impact of advances in the health care field, such as the increasing use of computers or even the possible collaborative role of clinical pharmacists. Appropriate training (and perhaps recertification) models have not been brought forth. (pp. 384–385)

Today's emphasis on utilizing best practice protocols and the all-important and fundamental concepts of consumer choice and individualized patient-based decision making clearly had not been seriously contemplated (Institute of Medicine, 2001; Kenkel, DeLeon, Albino, & Porter, 2003).

DeLeon et al. (1991) raised a number of fundamental public policy issues that psychology would eventually have to collectively consider, including the historical role of the state governments in determining local practitioner scope of practice parameters and the long history of individual states' experimentation with innovative health delivery models:

> It is commonly believed that only physicians and dentists have traditionally been able to prescribe medications. Yet, in early Western history, pharmacy and medicine were so intertwined that, in effect, they were virtually the same profession. In colonial America the medical and pharmaceutical professions were interchangeable. It wasn't until the 20th century that pharmacists in America lost the right to prescribe. (p. 387)

In retrospect, DeLeon et al.'s (1991) description of the state legislative battles of the Hawaii Psychological Association (HPA), following up on U.S. Senator Daniel K. Inouye's challenge at the 1984 HPA annual convention pursuant to their programmatic theme of "Transcending Traditional Boundaries" (Inouye, 1984), foretold the experiences of future state RxP legislative initiatives (DeLeon, 2003). The health policy context, within which psychology would ultimately choose to seek independent (vs. dependent) authority, and limited (vs. unlimited) prescriptive authority, was also addressed. The historical importance of the then-just-beginning dialogue between APA and Department of Defense (DoD) officials regarding the specifics of their soon-to-exist congressionally mandated psychopharmacology fellowship training program is extraordinary. Over the next decade, this DoD initiative, in particular, would provide the foundation and credibility for future state association legislative efforts and the ultimately to-be-developed targeted RxP training initiatives. The DoD experience clearly demonstrated for psychologists and others that professional psychologists could be cost-effectively trained to provide high-quality and patient-centered psychopharmacological care (Newman, Phelps, Sammons, Dunivin, & Cullen, 2000). Of considerable interest is the fact that the quality-of-care and access issues for various historically underserved patient populations (i.e., women, hyperactive children, the elderly, ethnic minorities, and rural America)

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that were raised by DeLeon, Sammons, and Sexton (1995) are still critical today (Institute of Medicine, 2004), as is the express recognition that prescriptive authority is fundamentally a training issue. Not surprisingly, the complex interaction between various didactic therapies and the use of psychotropic medications continues to be an area of considerable discussion and one requiring ongoing research and systematic study (DeLeon, 2002).

DeLeon et al. (1991) prophetically concluded,

> Psychology is a relatively young profession and has yet to fully test the limits of its appropriate scope of practice. During the past five years there has been significant interest in the profession ultimately obtaining prescription privileges. Although this is fundamentally a training issue, it has been the leadership of the practice community that has been the driving force in pursuing the issue. Both the federal and state governments have extensive experience in developing a wide range of nonphysician health care delivery models, including prescribing. A surprising number of psychologists have already used this clinical modality, with no quality-of-care difficulties. In fact, there are many societal needs that could be admirably served by psychologists' obtaining prescription privileges. Efforts within the Department of Defense and the state of Hawaii may be laying the foundation for a truly national agenda for the decade to come. (p. 392)

In 1992, the Council of Representatives task force on prescription privileges for psychologists (Ad Hoc Task Force on Psychopharmacology) reported that in its judgment, practitioners with combined training in psychopharmacology and psychosocial treatments could be viewed as a new form of healthcare professional, one expected to bring to health care delivery the best of both psychological and pharmacological knowledge, and that the proposed new providers possessed the potential to dramatically improve patient care and make important new advances in treatment (Smyer et al., 1993). We note that, as DeLeon et al. (1991) had contemplated, over the subsequent decade and a half, considerable progress has been made in establishing a solid foundation for psychology's prescriptive authority quest both within organized psychology and in the public domain (Burns, DeLeon, Chemtob, Welch, & Samuels, 1988; DeLeon, 2001).

Within the APA Governance

In 1995, the Council of Representatives formally endorsed prescription privileges for appropriately trained psychologists and called for the development of model legislation and a model training program (APA, Council of Representatives, 1995). The conceptual public policy model involved was that the national professional association (APA) would provide content (or parameter) guidance for the state associations in their subsequent efforts to negotiate with their local legislative and administrative authorities to obtain this goal, pursuant to APA's historic position with state licensure. It was assumed that the various federal and other governmental agencies would, to a significant extent, ultimately rely upon these state determinations in granting relevant clinical privileges to their employees. The public sector might also serve as an experimental laboratory for society as elected officials explored expanding a health profession's scope of clinical practice, as it had done in the past (DeLeon, Dunivin, & Newman, 2002).

Within the year, the APA governance deliberations were concluded, leading to the Council of Representatives formally adopting both the proposed model bill and training curriculum at its 1996 meeting in Toronto (APA, Council of Representatives, 1996). The training curriculum was to consist, at a minimum, of 300 didactic contact hours in five core content areas, plus supervised "hands-on" medication treatment of at least 100 patients of a diverse patient population in both inpatient and outpatient settings. In 1997, the American Psychological Association of Graduate Students (APAGS, which today has approximately 55,000 members) adopted a formal resolution of support for APA's position on prescription privileges, and that same year, Council authorized the APA College of Professional Psychology to develop an appropriate examination, suitable for use by state and provincial licensing boards (APA, Council of Representatives, 1997). To date, approximately 208 psychologists have taken the exam after completing their didactic psychopharmacology training. The Association of State and Provincial Psychology Boards (ASPPB) has no formal position advising or discouraging prescriptive authority, but it has developed Guidelines for its membership to consider as their legislatures enact RxP bills (ASPPB, 2001). Pursuing prescriptive authority for properly trained psychologists is now APA policy, and a clear policy mechanism exists for determining which practitioners should be deemed eligible by state and provincial licensing boards for possessing this responsibility. It was contemplated, although not specifically required, that the didactic training be postdoctoral in nature. We would further note that the necessary policy discussions surrounding

the nature of the expected "hands-on" clinical experience were only in the beginning stages at that time.

The Development of RxP Training Modules

As professional psychology became increasingly engaged in the necessary dialogues surrounding the obtaining of prescriptive authority, a general consensus quickly evolved that an absolutely critical step was to ensure that sufficient numbers of practitioners were appropriately trained. Having psychology's clinicians actively involved in determining pharmacologic treatment decisions was generally viewed as so qualitatively different from psychologists' traditional role that for the first time ever, many clinicians, educators, and scientists desired formal approval of a "scope of practice" issue from the Council of Representatives. Even after this was obtained, it was clearly evident that unless a significant number of practitioners received formal training, psychology would not collectively possess the necessary internal comfort level (nor grass roots support) required for ultimate legislative success. Thus, a new training mission and a new market were born. Over time, eight to nine distinct RxP training programs, each of which claimed to meet the current APA-proffered didactic criteria, emerged. The majority of these programs are university- or professional-school-based programs, and all target the expressed interest of full-time licensed practitioners. Distance learning, Web-based instruction, and Executive Track modules (e.g., weekend-long sessions) are frequently employed. Several of the programs award a master of science degree in clinical psychopharmacology upon graduation; others grant certificates of accomplishment. All of the programs are postdoctoral in nature. Practitioner interest remains quite high, with the Fairleigh Dickinson University program, for example, already having graduated 111 colleagues. The rapid growth of training opportunities gave rise to discussions regarding the feasibility of establishing a formal designation mechanism to identify programs that meet APA guidelines. The purpose of such a designation process would be to provide a significant level of comfort for state licensing boards as well as assurance to potential students and the public that the training was consistent with current professional standards.

Legislative Advancements at the State Level

In March 2002, New Mexico's Republican Governor Gary Johnson signed H.B. 170 into public law, thus capping an extensive and highly public effort begun in earnest in 1998 by the New Mexico Psychological Association to enact psychology's first comprehensive prescription privilege statute. Two earlier legislative efforts had successfully demonstrated that the concept was feasible, although to date neither of these laws has been implemented. Specifically, in December 1998, the Guam legislature overrode their Governor's veto of B. 695, and in March 1993, the Indiana legislature enacted a technical modification to their psychology licensing law. Both of these efforts could conceivably provide psychology with prescriptive authority. At the 2003 annual State Leadership Conference, Russ Newman underscored the significance of New Mexico's legislation in the overall movement by psychologists to gain prescriptive authority. Newman (2003) stated,

> Since last year's State Leadership Conference, a major milestone for the advancement of our profession was reached in 2002 when New Mexico became the first state in the country to enact a law authorizing appropriately trained psychologists to prescribe. . . . What is perhaps the most telling feature of the prescription privileges movement is that for the entire period from 1986 to 2002, a total of 13 states had filed legislation, usually no more than one or two a year. In 2003, we have 12 states simultaneously pursuing legislation. As important as it was to get that first state law passed, it is equally important to get the second law enacted. Organized psychiatry continues to cling to the argument that New Mexico was a fluke, an anomaly, and that no other state would repeat this "mistake" by the New Mexico legislature. We need to remove this misconception to which they cling by making new laws a trend rather than an isolated event. While the prescription privileges agenda is not without concerns from within our own profession that need to be addressed, I continue to be impressed by the optimism about psychology's growth and future that I hear in those states where prescriptive authority efforts are occurring—something we cannot overlook at a time where much else in healthcare is pessimistic and at a standstill. (para. 7, 9)

By the 2004 State Leadership Conference, the trend of a building momentum was evident:

> [T]he past year witnessed considerable continuing activity on this front. Nine states introduced RxP legislation in 2003—Florida, Georgia, Hawaii, Illinois, New Hampshire, Oregon, Tennessee, Texas and Wyoming. Six of these states had committee hearings on their bills, the largest number ever in one year. And Wyoming had its first-time bill not only pass out of a senate committee but also go to a floor vote. Bills in 2004 so far include Georgia, Hawaii, Illinois, Louisiana, Maine, New Hampshire, Oklahoma and Tennessee. And Guam continues to work to implement its law. Importantly, the New Mexico Psychological Association remains hard at work implementing their prescriptive authority law. Although the process has been slow going for sure, recent developments have provided reason to smile. . . . Clearly, there is much state action in the RxP area and momentum continues to build. (Newman, 2004, para. 10, 11, 12)

Of considerable importance in demonstrating that New Mexico was not an anomaly (as organized psychiatry consistently proclaims) was Louisiana Democratic Governor Kathleen Blanco's signing of H.B. 1426 into public law in May 2004, which was the culmination of the Louisiana Psychological Association's legislative quest, begun in 1995 (DeLeon & Wiggins, 1996).

By January 2005, in both New Mexico and Louisiana, the regulations implementing the respective state RxP statutes became effective. The following month, the first prescription was written by the first civilian psychologist licensed to prescribe under state law—John Bolter, PhD, Medical Psychologist (MP). Since then, over 70 psychologists have been certified to prescribe in both New Mexico and Louisiana, and they have collectively written over 250,000 (G. Ally, personal communication, November 17, 2008) prescriptions without incident, reaffirming what the General Accounting Office determined in its 1999 evaluation report of the Department of Defense Psychopharmacology Demonstration Project—that psychologists can be

trained to effectively and safely prescribe psychotropic medications (U.S. General Accounting Office, 1999).

With appropriately trained and certified psychologists now prescribing in two states, other states continue to press forward in their efforts to achieve prescriptive authority for psychologists. In 2005, nine states introduced prescription privileges legislation—Connecticut, Georgia, Hawaii, Illinois, Missouri, Oregon, Tennessee, and Wyoming, as well as New Mexico, which introduced a technical amendment to clarify its prescription privileges law. Committee hearings were held for seven of those bills. In 2006, some of those same states—Connecticut, Georgia, Hawaii, Missouri and Tennessee—returned to the legislature with bills, seeking to build upon the successes of the previous session.

As Newman reported in his 2007 State Leadership Conference address,

> Despite no new states gaining prescriptive privileges this past year [2006], considerable activity continued. The Louisiana Psychological Association and the Louisiana Academy of Medical Psychologists successfully amended the state's public health statute to ensure that medical psychologists can prescribe in state health facilities. And in New Mexico, new regulations were promulgated to fix a number of the problems from the first set of regulations implemented through that state's prescriptive authority law. (Newman, 2007, para. 15)

In 2007, Hawaii made its most significant progress to date with its RxP bill passing the full House and Senate. However, the Republican governor chose to align politically with organized medicine and veto the bill, and unfortunately, the legislature did not have the necessary two-thirds vote in needed in both houses to defeat the Governor's veto. Said Newman (2007),

> Support from the state's community health centers, the Hawaii Primary Care Association and Hawaii's largest insurer, HMSA, continue to make it more than possible that Hawaii will become the next state to obtain prescription privileges for psychologists. For the first time in the prescription privileges movement, two states—Mississippi and Montana—have seen RxP bills filed, unsolicited, by legislators who then turned to the state psychological associations for help getting the laws passed. The Montana legislation successfully passed out of its first committee but didn't survive its second reading. In California there are actually two prescriptive authority bills pending, one co-sponsored by the California Psychological Association. The Missouri, Illinois, Georgia and Oregon Psychological Associations have again introduced bills in their respective states, and the Virgin Islands is also expecting to file a bill this session.
>
> The Tennessee Psychological Association has also recently filed a bill, but that hardly tells the story in the state that could be described as literally having been but one vote shy of getting their law enacted in 2005. In 2006, the state medical association introduced a bill proposing a study of over utilization of medication in Tennessee. Tucked at the end of the bill was language, consistent with the AMA's Scope of Practice Partnership Initiative, calling for a moratorium on any prescriptive authority legislation. TPA was forced to turn its attention away from its RxP bill to defeat this psychiatry-sponsored Trojan horse. But that's not the end of the story either. Poised to push their bill over the top this year, TPA could only stand by as an FBI sting—known as operation Tennessee Waltz—netted several current and former state lawmakers for accepting bribes from lobbyists, including the sponsor of TPA's bill. Undeterred, TPA is continuing to line up new supporters. (para. 16, 17)

More recently, in 2008, there were prescriptive authority bills introduced or pending in eight jurisdictions—California, Georgia, Hawaii, Mississippi, Missouri, Oregon, and Tennessee—including a study bill passed in Florida authorizing a nonpartisan study of the adequacy of mental health services for Florida's citizens and of whether psychologists with specialized training to prescribe can safely offer this service. As of this writing, the study is still in progress, and it is anticipated that the results will become available before the end of 2009.

These many legislative initiatives demonstrate that the successes in New Mexico and Louisiana have created a groundswell in other states, including those states that have not introduced legislation, prompting psychologists in those states to begin carefully developing their long-term strategies in order to work toward eventually introducing their own RxP legislation. It is clear that the prescription privileges movement has reached a tipping point—the story is no longer about the 10 psychologists trained to prescribe by the Department of Defense Psychopharmacology Demonstration Project. The story is now about the psychologists prescribing in the civilian sector, whose numbers continue to grow and will likely exceed 100 in the near future. The DoD psychologists, despite being trained in a medical model, practiced within a psychological model, most likely because of their years of practicing psychology prior to undertaking the training. Psychologists trained in the civilian sector will have the benefit of being trained within a psychological model of pharmacotherapy and will move the practice and training to the next level.

Evolving Policy Considerations

As it became increasingly evident to all concerned that professional psychology would ultimately succeed in its quest to obtain prescriptive authority (Oliveira-Berry, DeLeon, & Jennings, 2004), a number of association leaders have urged that as a responsible and maturing profession, collectively, we must now carefully and proactively explore a number of related policy issues (DeLeon, Bennett, & Bricklin, 1997; DeLeon, Robinson-Kurpius, & Sexton, 2001).

When anticipating the next steps of this nascent movement's evolution, one can gain useful insights by considering the respective experiences of those achieving prescriptive authority for psychologists in New Mexico and Louisiana. As the first state to pass an RxP law for psychologists, New Mexico did not have the benefit of another state's experience to provide guidance for its own situation. While the APA's Recommended Postdoctoral Training in Psychopharmacology for Prescription Privileges ("Model Curriculum") and Model Legislation for Prescriptive Authority were available for New Mexico in drafting its law, there was no established designation system that could evaluate the various postdoctoral training programs in clinical psychopharmacology. The lack of such a designation

process, combined with the fact that New Mexico psychologists also had to contend with the involvement of the state medical board in drafting regulations to implement its RxP law, resulted in a laborious, three-year rule-making process and a prescribing law requiring extensive supervised training (Professional Psychologist Act, 2008).

Learning from the experiences of New Mexico in developing its strategy, Louisiana followed a different route to passing its prescriptive authority statute. One important difference is that the Louisiana law did not require the state medical board's involvement in the rule-making process. Also, the law did not spell out detailed educational and practicum training requirements like the New Mexico law, instead requiring a postdoctoral master's degree in psychopharmacology and emphasizing a "consultation, collaboration and concurrence" model of patient care between the prescribing psychologist and patient's primary care physician. In addition, the Louisiana statute defines psychologists who are certified to prescribe as "medical psychologists"(Louisiana Rev. Stat. §§ 37:2371 et seq.)—a term not shared by the New Mexico law.

During this time, New Mexico had requested guidance from APA about the need for a designation process to assist state licensing boards in identifying the parameters of what constitutes appropriate psychopharmacology education and training. APA acknowledged the need for a designation process but, in considering the practicability of taking on this project internally, determined that an outside body would be better suited for this undertaking. In 2004, the National Register and the ASPPB offered to develop a designation criteria process for postdoctoral RxP training programs, which had the initial support of APA's Committee for the Advancement of Professional Practice (CAPP; APA, CAPP, 2004).

But over the course of the next year, issues raised by various interest groups made clear to CAPP that APA's RxP policies needed to be updated to reflect the advances made in prescriptive authority training and legislation since the Model Curriculum and Model Legislation were adopted in 1996 (pursuant to the APA governance policy requiring review of its policies at least every 10 years). As a result, CAPP expressed the need for a moratorium on any further development of designation criteria until an APA expert panel had completed a review and possible revision of APA's psychopharmacology curricula and related policies (APA, CAPP, 2005).

One of the issues that have emerged is clarification as to what kinds of programs may offer postdoctoral training in psychopharmacology. For nearly a decade, CAPP has interpreted APA policy as recognizing the need for quality postdoctoral training in psychopharmacology while also allowing flexible training options, such as organized sequences of Continuing Education study. It is the belief of CAPP and the Practice Directorate that this interpretation is consistent with the intent of the authors of the APA Model Curriculum. However, this intent needs to be further clarified in the Model Curriculum and related policies.

Another significant issue is clinical practicum training. Most of the postdoctoral psychopharmacology training programs are not currently equipped to set up individual practicum training sites for their trainees, although the programs have expressed a willingness to monitor practicum experiences. However, currently, there are no uniform standards or procedures for programs to use for documenting completion of practicum training. Faced with having to locate and set up a practicum placement themselves, trainees encounter numerous challenges, including lack of available practicum sites or supervisors, work schedule conflicts, distance barriers, and so forth.

Recommendations regarding these and other issues fell to the joint Board of Educational Affairs (BEA)–CAPP Task Force to Review the APA Psychopharmacology Curricula and Related Policies, which was appointed by APA to review the Model Curriculum and Model Legislation. The panel, comprising 15 psychologists in various areas of expertise, met twice in 2006 for this undertaking (APA, Council of Representatives, 2006) and again in 2007 following the public comment period. The Task Force's final recommendations were approved, in principle, by the Council of Representatives at its August 2007 meeting. As of this writing, a subsequent task force appointed by BEA and CAPP has forwarded a proposed designation model for postdoctoral psychopharmacology education and training programs to APA governance for review and comment. It is likely that this designation protocol will be acted on by APA's Council of Representatives in 2009. The results of the panel's review will impact the next steps of the RxP movement.

Conclusion

Time passes irrevocably, as the Roman poet Virgil said. With the passage of time, well-founded ideas mature and gain acceptance, or they fall into disuse or suffer defeat at the hands of competing ideologies. In spite of opposition by the very potent forces of organized medicine, the concept of expanded scopes of practice for NPHCPs has clearly gained acceptance, as numerous legislative victories over the past two decades can attest. Although these initiatives appear to have slowed somewhat during the past several years, nonphysician prescriptive authority has clearly gained acceptance. Significant progress, combined with a continued lack of evidence that patient safety has been adversely affected, suggests, in our view, that the public has not rejected expanded NPHCP practice as a component of U.S. healthcare. The continued growth in numbers of NPs, PAs, psychologists, and (on a much smaller scale) prescribing psychologists, along with other NPHCPs also suggests that the public welcomes the services these providers offer. Why, then, does the momentum for expanded scopes of practice appear to have stalled, particularly in psychology? Some potential explanations may be (a) that the profession is less invested in pursuing legislation for independent authority because some practitioners may be concerned that such legislation might adversely impact their existing collaborative relationships with physicians, (b) that the profession has given higher priority to new legislative initiatives, or (c) that the medical profession has been more successful in recent years in

defeating these initiatives. Importantly, our profession, like those of other NPHCPs, is encumbered by an arduous and lengthy legislative process governing the expansion of our collective scopes of practice. The need to pursue legislative remedy for professional issues at the state or territorial level is extraordinarily costly. More critically, it results in a patchwork of inconsistent, if not conflicting, laws that does a disservice both to the profession and to consumers of healthcare services. As a recent report from the Center for the Health Professions stated,

> Inefficiencies occur when health care practitioners are not utilized to their full capacity in terms of their education, training, and competence. These inefficiencies may manifest as higher costs, limited access to care, and concerns over quality and safety. (Dower, Christian, & O'Neill, 2007, p. 20)

In psychology as well as in other NPHCP professions, those responsible for advocacy efforts must understand the contribution of each of these factors in slowing legislative progress and must devise strategies to address each separately. In the states where prescriptive authority for psychologists has been authorized, as well as in those federal systems where psychologists are authorized to prescribe, there is every indication that the notion is fulfilling the original intent of expanding access to quality mental health care and no evidence that patient safety has been compromised. Psychologists must understand that our obligations transcend guild concerns and must ultimately address the fundamental concern of expanded patient access to expert mental health services. Like nurses, optometrists, and other NPHCPs who have achieved greater legislative success in the past, we must examine both our priorities and our strategies in the context of societal needs and trends as well as the political landscape, both internal and external to the profession, if we are to ensure continued legislative success for prescriptive authority.

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Testimony for Vermont Sunrise Review for Prescribing Authority for Psychologists

Good morning. I would like to thank the Office of Professional Regulations for holding this hearing on this very important issue. My name is Winston Chung and I am a board-certified general and child and adolescent psychiatrist. I was trained in the residency and fellowship programs here in Vermont, and until recently, I was a clinical assistant professor with the Department of Psychiatry at University of Vermont Medical Center. I've had experiences working with medical students, residents, fellows, psychiatric nurse practioners, and physician's assistant. Today, I am testifying in my role as a member of the Vermont Psychiatric Association and as a representative to the Assembly of the American Psychiatric Association. We are extremely concerned about the proposal to give psychologists prescriptive authority.

The points that I would like to make today are the following:

- The process of prescribing medication is complicated and is not a separate process. It is integrally connected to the process of developing differential diagnosis, understanding the underlying psychopathology, and how all the medical conditions and medication prescribed, whether psychiatric or not, are interconnected.
- While psychologists are an integral part of the mental health care team, their training and background are significantly different than a psychiatrist who is a medical doctor. The additional training in psychopharmacology being proposed is woefully inadequate.
- Training to be a medical doctor requires book learning as well as extensive in-person experience and learning from more experienced physician to develop the necessary clinical acumen.

To illustrate these points, I'd like to bring up a patient experience from a few years back. I've reduced the amount of details significantly and changed some of the details to protect the patient's privacy. The patient came to me with significant delusions and mood symptoms that affected his sleep. The patient came to me on very high dose of a particular medication that the patient felt had been helpful. I tried adding on a few other medications and nothing helped. Some people on the treatment team was convinced that I simply needed to give more medication. But, it became clear to me that the very high dose of this particular medication was interfering with the metabolism of all the other medications. And when I gradually discontinued this medication, the patient's symptoms resolved. This happened because the discontinuation of this medication allowed the other medications to work. This case was also complicated by a history of cardiac issues and seizure disorder, though he is not on a seizure medication per se. He also nodded off for brief seconds that not everyone noticed and he wasn't aware of. These other issues required a complete evaluation and may or may not have been related to his symptoms. One of the medications I used helped with not only the mood symptoms but also the possibility of seizures. I also kept careful monitoring of his cardiac function since many medications affect cardiac function, the most of which has to do with the possibility of developing an arrhythmia.

The reason this case is illustrative is because it shows what you need to do when you're prescribing medication. I had to understand a not so obvious reason for his symptoms not resolving despite adequate medication. I had to understand how the medications affected each other. And, I had to understand how his neurological and cardiac conditions were going to manifest themselves and how they were going to affect his treatment. This goes far beyond treating the initial mood symptoms. And

as I was treating the patient, I was carefully observing the patient for side effects and doing physical exams due to possibility of developing extrapyramidal symptoms, which are not uncommon. These subtle movements are clinical signs that I've needed to point out to medical students and residents because it takes experience to be able to pick them up. And this is after they've already spent thousands of hours studying and memorizing, and also have hundreds and thousands of hours seeing patients, which is far beyond the online training proposed here. This is true to all clinical signs. Real live clinical experience where you're in charge of the patient matters.

When you enter medical school, every medical student is given a book "On Doctoring." It is a collection of poems and essays that talks about the art of being a medical doctor. And each step along the way, the more senior physician are telling you that there is an art to being a medical doctor. And why is that? That's because along with knowing all the evidence and facts, the experience of training yourself to practice medicine matters. It's something you need to do over and over again to perfect your craft. For medical doctors, you do this under the supervision of your colleagues until they and you know you can get it right on your own. All of the medical training from undergraduate, graduate medical school, residency, and fellowship are all necessary and cannot be easily substituted.

I'm just going to reiterate the points that I'm making today:

- The process of prescribing medication is complicated and is not a separate process. It is integrally connected to the process of developing differential diagnosis, understanding the underlying psychopathology, and how all the medical conditions and medication prescribed, whether psychiatric or not, are interconnected.
- While psychologists are an integral part of the mental health care team, their training and background are significantly different than a psychiatrist who is a medical doctor. The additional training in psychopharmacology is woefully inadequate.
- Training to be a medical doctor requires book learning as well as extensive in-person experience and learning from more experienced physician to develop the necessary clinical acumen.

Thank you so much for taking the time to hear about this very important issue.

Testimony for Vermont Sunrise Review for Prescribing Authority for Psychologists

Good morning. I would like to thank the Office of Professional Regulations for holding this hearing on this very important issue. My name is Debra Koss and I am a board-certified child and adolescent psychiatrist with more than 25 years of clinical experience. I maintain a private practice in Sparta, New Jersey and am also a clinical assistant professor with the Department of Psychiatry at Rutgers-Robert Wood Johnson Medical School. Today, I am testifying in my role as a member of the American Psychiatric Association's (APA) Council on Advocacy and Government Relations. The APA represents over 37,400 psychiatric physicians who treat mental health and substance use disorders, and we are gravely concerned about the proposal to give psychologists prescriptive authority.

Psychologists are an essential part of the mental health care team and their role is very valuable to patients and to the care team as a whole. However, psychologists do not have medical training, and allowing them to prescribe would create a lower standard of care for our most vulnerable patients. Physicians, patient groups, and public health officials across the country have already determined that granting prescribing privileges to psychologists will put patients at risk. In fact, NAMI, our country's largest organization representing those affected by mental illness, does not endorse proposals to expand prescribing privileges to psychologists. Just last year, Washington State's Department of Health was asked to review proposed psychologist prescribing legislation. The Department ultimately opposed the bill, citing patient safety concerns and the potential to harm or endanger public health.

Proponents of psychologist prescribing often advocate that it will decrease patient wait times and the need for rural patients to travel far to access care. However, the Washington report indicated there was insufficient data to indicate that allowing psychologists to prescribe would increase access to mental health care. Nationally, we know that this is true; in the five states where psychologists can prescribe, only 167 psychologists are currently registered to be prescribers. Not only does this number show an inadequate increase in access to care, but it highlights the hesitation among psychologists themselves to pursue the responsibility of prescribing medications. Furthermore, we urge you to ask: should patients receive treatment from a person with no medical training simply because of where they live?

Prescribing psychiatric medications, by design, requires a high level of education, training, and experience. These medications affect the central nervous system, but also affect other organs. Moreover, combining psychiatric medications with other medications or prescribing to a patient with an underlying illness can be incredibly fraught and requires medical training to avoid patient harm. For example, cancer and treatments for cancer, such as chemotherapy, can cause depression. Antidepressant medications can be helpful but can also dangerously interact with chemotherapy drugs. These medications can cause the chemotherapy to become useless or overconcentrate the chemotherapy and cause intolerable side effects. This is just one example of the dangerous risk patients may face by having undertrained and inexperienced providers prescribe medications. Additionally, controlled substances can irreparably damage an individual's liver, kidneys, or other organs – increasing or creating health issues where none existed before. Simply put: this proposal's costs to both the patient's health and the healthcare system are just too high.

Access to mental health and substance use disorder care is a legitimate concern in our country. However, patients should be confident that those who are prescribing have sufficient education and training. The pandemic has certainly exposed the gaps mental health system, the APA, the Vermont Psychiatric Association, the Vermont Medical Association and others want to work with you to ensure all our patients have access to medically trained prescribers.

Thank you for the opportunity to share APA's concerns with you. Please use APA as a resource for any questions you may have.

Comments for Office of Professional Regulation

11/8/21

Joe Lasek, MD

My name is Joe Lasek. I'm a community based psychiatrist who's practiced my entire career in Vermont, first at Howard Center in Burlington for 15 years and currently at Counseling Services of Addison County in Middlebury where I have served as Medical Director for the past year. I also serve as Medical Director for the Vermont Practitioner Health Program a program of Vermont Medical Society, as the president of the Vermont Psychiatric Association and am speaking today on behalf of myself and Vermont Psychiatric Association.

Thank you for allowing me to testify today regarding the issue of potentially expanding the ability of nonmedical professionals including psychologists to prescribe medication to Vermont citizens. Today, I am going to submit to you that this expansion of medical care outside of the context of safe and reasonable medical training, not only presents a threat to Vermont citizens, it does not solve the problem it purportedly tries to solve. To the contrary, it would exacerbate the problem of access to good psychological care in our state. Further, I will present what I believe are much better and safer alternatives to improving psychiatric access in our state.

What concerns my colleagues and me most is the potential danger posed of having nonmedical personnel with minimal education, training or experience attempting to practice medicine. As Dr. Lewis so well demonstrated in her comments, medical professionals undergo thousands of hours of medical training in order to safely and effectively prescribe medications. While no other medical professional has the thousands of hours of training that psychiatrists have in the practice of prescribing psychotropic medications, all medical professionals receive thousands of hours in the subjects that Dr. Lewis described. Any training program for psychologists to prescribe outside of standard medical training would fall far short of the current standards applied to all other medical professionals. If this proposal were to pass, there would be one subset of patients in Vermont receiving medical care below the standards of all other patients

As Dr. Lewis so well described in her presentation, prescribing medication is not a simple or straightforward process. It comes at the end of an extensive process of assessment and treatment planning. This process involves not only careful assessment of psychological and social factors but of the numerous potential biological factors which one learns

Initiating a medication is only the beginning of what is an ongoing assessment of a complex array of factors including:

- psychiatric symptoms,
- underlying medical issues,
- interactions with nonpsychotropic medications including over-the-counter medications recreational substances and supplements
- Medical monitoring of both short-term and long-medication effects and side effects including using various physical exams and medical technologies

Further, when a patient is taking psychotropic medication and new symptoms emerge, a medical professional must rely on their thousands of hours of training to develop a plan to assess the underlying causes, collaborate with other medical professionals when necessary and then alter the treatment plan with psychotropic medication accordingly. It is hard to imagine that someone with a few hundred hours of training could do this with reasonable skill and safety

A question that I have for those who are proposing this expansion: where would the limits of prescribing be? Because psychiatrists and other medical professionals are trained in the use of all medications available to us, we commonly find ourselves using medications that treat more than what are considered “psychiatric conditions”. This includes using antiseizure medications and tricyclic antidepressants in the treatment of neuropathic pain, migraine headaches and sleep disorders. It also includes use of medications used for hypertension or arrhythmias in the treatment of anxiety, sleep disorders or ADHD. How would non-medical professionals be able to direct treatment to both psychiatric disorders as well as co-occurring medical issues as well as ensuring the safety of those treatments, which involves utilizing blood tests, EKGs and other medical tests?

I have said before that the idea of expanding psychotropic medication to nonmedical professionals is about 20 years out of date. Back when I began my training 20 years ago, the field of medicine was quite optimistic about what psychiatric medications had to offer and frankly did not fully comprehend the potential downsides for many of the medications we prescribed. The mood in the field of psychiatry and medicine generally was one of therapeutic optimism and use of psychotropics became widespread. Since that time, we have heard more from those prescribed psychiatric medications as well as conducting longer-term research and retrospective reviews. In doing this, we have found that all psychotropic medications carry some risk short and long term. Some of these risks can be significant and life altering. The mood in our field over the past 10 years especially has become much more cautious. While the therapeutic promise of the medications we prescribe in psychiatry is sometimes considerable, with growing recognition of their potential problems, we have become more judicious when starting medication, and once someone becomes stable on a medication, consider the need for those medications in an ongoing way. The buzzword in psychiatry these days is “deprescribing”. In other words, how do we judiciously stop medications once someone has started them. In my experience, this is the most difficult task facing medical professionals when prescribing psychotropic medications and those who do this well have the most training and experience. Conversely, those with the least training have the most difficulty with this task and often leave patients on medications rather than risk reducing them. This is completely understandable: it can be destabilizing and potentially risky to stop medication. This is why I believe, instead of promoting the idea that we need new prescribers with little training, we need to leverage the time and expertise of the most well-trained medical professionals in order to promote safer, more judicious prescribing of psychotropic medications.

How can we do this? There are a number of ways in which we can increase psychiatric access in Vermont. Some of these things are already happening here in a limited way and expanding them would be of significant benefit to the health and well-being of our citizens. A few ways to do this include:

- Increase retention and recruitment of psychiatrists in Vermont by:
  - Provide loan repayment for psychiatrists practicing in Vermont, especially in rural areas
  - Continue the ability for psychiatrists to provide telephone and telehealth care at parity with in-person care
  - Improve ability for psychiatrists from outside the state to provide telehealth care within Vermont
  - Improve reimbursement for psychiatrists, especially in the Medicaid program

- Continue to support ongoing training of primary care providers in basic psychotropic management of psychiatric conditions through UVM, Dartmouth, AHEC and other partners.
- Reimburse psychiatrists and primary care providers for consulting with each other directly (i.e. “curbside consults”, “E-consults”). This model allows for direct communication with primary care providers around specific cases in which they have assessment or treatment questions. For the more straightforward questions, a psychiatrist-to-primary care-consult can often provide the necessary support to allow for psychotropic prescribing within a patient’s medical home safely and effectively. This also allows for ongoing training and education of primary care providers who do the majority of psychotropic prescribing currently, most of which is routine and straightforward in the context of their overall medical care.
- Increase access for primary care practices to the Collaborative Care Model (also known as COCM). This model has an extensive evidence-base showing effectiveness and safety. It involves a care manager, usually a social worker, embedded in a primary care practice, collaborating with a psychiatrist on a panel of patients who continue to receive their care in their medical home. This model leverages limited psychiatric time to maximum effect. Support for COCM could involve:
    - Providing further training in this model for psychiatrists, primary care providers and mental health professionals.
    - Providing grants to get COCM up and running in individual practices
    - Requiring Medicaid and private insurance companies to activate collaborative care codes (in addition to Medicare which already allows these codes to be used)
- Support from the State for Designated Agencies in Vermont to become Certified Community Behavioral Health Centers. This model allows for stronger funding of mental health services in Vermont similar to the way Federally Qualified Health Centers are funded. In Vermont, we have seen Federally Qualified Health Centers successfully recruit more mental health staff including psychiatrists to the state. If the state of Vermont supports CCBHCs, I believe we will be able to successfully retain and recruitment more psychiatrists to Vermont.
- Support funding for the psychiatry Advanced Practice Registered Nurse (APRN) program at UVM. This would allow for more nurses in Vermont to receive it advanced practice training. In the past, when there was an APRN program at UVM, we saw many of those nurse practitioners remain in Vermont and serve communities throughout the state

Finally, I wish to end my comments by offering my sincere gratitude to my psychologist colleagues for the excellent, compassionate and effective work they do every day. All of the data we are seeing over the past couple years indicates that we are facing the greatest mental health crisis this country has ever seen. The patients that I work with every day are helped immensely by the psychotherapeutic interventions provided by my psychologist colleagues throughout Vermont. At the same time, we are seeing a huge access problem, not to psychotropic medications, but to being able to access psychologists when Vermonters need that care. Most practices throughout the state are full and not accepting new patients.

At a time when access to evidence base psychotherapy by well-trained psychologists is extremely limited, I would argue that it makes little sense to have psychologists diverting their time and attention to prescribing medication, for which they would have very limited training. Thank you for your time

Training Requirements for Safe Prescribing

Judith Lewis MD

Psychiatry Residency Training Director

UVM Medical Center

Undergraduate or Post-Baccalaureate Requirements

Coursework

8 credits (6 credits of lecture and 2 credits of lab) OR 1 year in each of the following subjects:

Required Subjects	Meets the Requirement	
Biology	• Anatomy and Physiology • Cell Structure and Function • General Biology • Genetics • Histology • Microbiology • Nervous System • Upper-level Zoology •	
General Chemistry	• General Chemistry • Physical Chemistry	
Organic Chemistry	Biochemistry can be substituted for four of the eight credits	
Physics	• General Physics • Physical Chemistry may be substituted depending on the material covered	

Recommended Classes: Biochemistry, Genetics, Biostatistics, Anatomy, Physiology, Molecular Biology, Microbiology, Behavioral Science, English, and Humanity

Medical School Curriculum

4 years; Active Learning

- Past ~10 years in medical education, it has been determined that active learning techniques lead to better retention than didactic lectures

- There is such a strong evidence-base for this, the UVM Larner College of Medicine is nearly 100% active learning.

- Learning Modalities in the Classroom:
  - Team-based, case-based, & problem-based learning
  - Workshops
  - Integrative Review
  - E-learning interactive modules

- Students prepare in advance of class, then use that knowledge in class; learning must be in-person

- Clinical Training is the ultimate form of active learning: LCOM has always started clinical rotations early

Why Active Learning?

Compared to a traditional lecture model, active learning increases the following:

- Learner participation and engagement
- Higher-order thinking
- Learning outcomes

In practice, students prepare for class by learning curated foundational knowledge; in class, they think critically and work collaboratively to solve problems. After class, they assess gaps and fill accordingly. Finally, they use formative and summative testing to gauge understanding.

Year 1&2: Foundations

- Foundations of Clinical Sciences
  - anatomy, biochemistry, cellular metabolism, genetics, pharmacology, embryology, physiology
- Attacks and Defenses
  - hematology, immunology, microbiology, toxicology, pathology, pharmacology, and neoplasia
- Nutrition, Metabolism & Gastrointestinal System
  - Includes endocrinology, gross and microscopic anatomy, liver and biliary system
- Medical Neuroscience
  - neurobiology, neuroanatomy, neurology, and psychiatry
- Connections (skin, connective tissue, musculoskeletal system)
- Cardiovascular, Respiratory & Renal Systems
- Human Development & Reproductive Health
- Convergence
  - Problem-based learning to integrate above topics and to learn clinical reasoning

USMLE Step 1 Exam

Year 2 &3: Clinical Clerkships

- Surgery
- Internal Medicine (inpatient and outpatient)
- Neurology
- Psychiatry
- Family Medicine
- Pediatrics
- Obstetrics and Gynecology

USMLE Step 2 Exam

Additional topics:

• Patient Safety • Evidence-based Medicine • Simulation • Palliative Care • Global Health • Complementary & Alternative Medicine	• Pharmacology • Nutrition • Genetics • Professionalism • Communication & Reflection II • Health Care Finance

Year 3&4: Advanced Integration

- Acting Internship in Internal Medicine
- Surgical subspecialties
- Emergency Medicine
- Acting Internship in specialty of choice
- Electives
- Research/Scholarly Project Requirement

Psychiatry Residency (4 years)

Didactics & Supervision:

- >600 hours of didactics
  - majority dedicated to (and/or includes a discussion of) psychopharmacology
  - Includes case conferences, journal club, patient safety activities
- >400 hours of 1:1 supervision

Clinical Rotations:

- 4 months of medicine or pediatrics
- 2 months of neurology
- 42 months of psychiatry
  - 130+ call shifts
  - Varied settings: Inpatient units, Emergency Dept., VA, Community Settings, Outpatient Clinics, Child Psychiatry

Teaching medical students throughout

Examples of Medication-Induced Emergencies/Adverse Effects

- Antipsychotics:
  - Tardive dyskinesia
  - Acute dystonic reactions
  - Neuroleptic Malignant Syndrome
  - Malignant Catatonia
  - Neutropenia
  - Extreme restlessness
  - Diabetes
- Antidepressants:
  - QT prolongation; torsades de points
  - Syncope, orthostatic hypotension
  - Hyponatremia
  - Severe insomnia
- Anxiolytics:
  - Respiratory depression
  - Addiction
  - Over-sedation/falls
  - Withdrawal seizures
- Mood Stabilizers:
  - Renal failure (Lithium)
  - Hyponatremia
  - Neural Tube Deficits
  - Liver Failure
  - Pancreatitis

Once you have seen these, you will never forget.

Psychiatric Medications Affect All Body Systems

Safe, appropriate prescribing requires expert medical knowledge of all body systems.

Nervous

Medications affect the connection between brain and body, sometimes impairing alertness and reaction time. May cause seizures or stroke.

Skin

Medications may cause a potentially fatal rapid loss of skin (known as Stevens-Johnson syndrome).

Respiratory

Medications are known to affect a patient's ability to breathe and rate of breath. May cause respiratory failure.

Urinary

As part of the removal of waste, medications can impact one's kidneys, bladder and urinary tract. May cause kidney stones or failure.

Cardiovascular/Circulatory

The heart, arteries and veins are crucial to delivering oxygen and nutrients to organs and cells, and medications can alter their function. May cause cardiac arrest.

Reproductive

Fertility, sex drive, and maternal and infant health all may be at risk because of certain medications. May cause birth defects.

Endocrine

Medications may change a patient's hormone production, secretion and metabolism. May cause abnormal breast development and lactation in men and women.

Immune

Medications can affect or destroy immune and lymphatic systems, impacting the body's ability to defend against disease-causing agents or even cancer.

Musculoskeletal

Some medications can cause tremors or permanent involuntary movements. Others may affect calcium absorption, bone density and bone formation.

Digestive

Medications are often taken by mouth, metabolized by the liver and can affect the stomach, pancreas, gallbladder and intestines. May cause liver failure.

AMERICAN PSYCHIATRIC ASSOCIATION

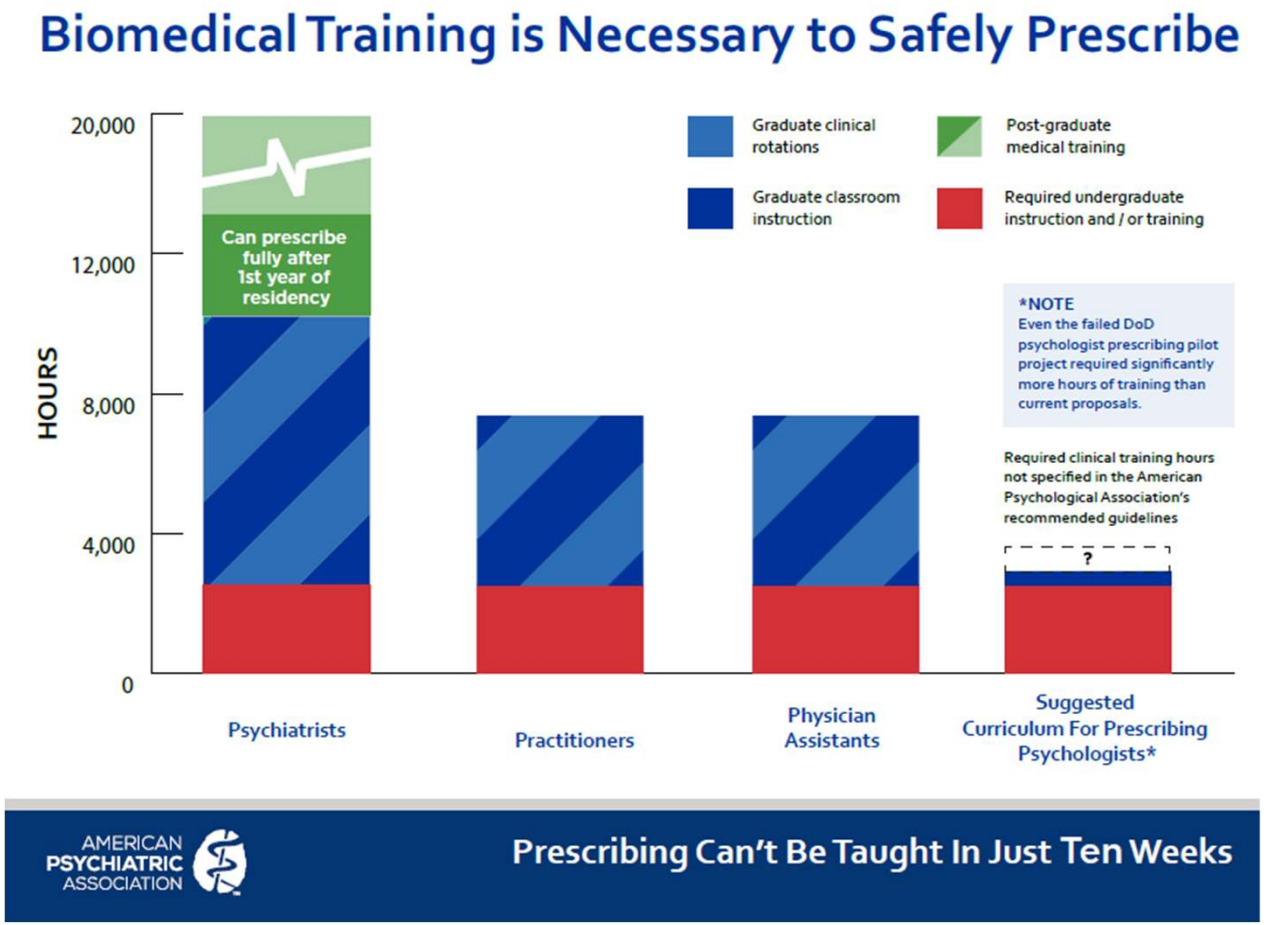
Prescribing Can't Be Taught In Just Ten Weeks

Clinical Training is a Necessity for Safe Prescribing

- By design, psychiatry residents have **innumerable** patient encounters under supervision in which they:
  - determine a differential diagnosis, including ruling out medical causes
  - select treatment
  - start medication/taper off existing medications
  - manage side-effects
  - treat emergencies, including those caused by medication
  - consider co-morbid medical conditions and medications
  - coordinate care with their medical colleagues
  - consult the literature to inform their treatment plans
  - educate patients, families, and other physicians

American Psychiatric Association (APA)

- By the time of graduation, psychiatry residents have had over 12,000-16,000 hours of clinical training post-medical school



Testimony: Office of Professional Regulation
November 9, 2021
Anne Morris, MD

Good Evening:

My name is Anne Morris. I come to you tonight representing the Vermont Academy of Family Physician as the President-Elect. It is our position that prescribing authority should NOT be extended to doctorate-psychologists in Vermont.

I am also a family physician who has practiced in the inpatient and outpatient settings including regularly providing behavioral and mental health treatment. Further, I am the Program Director for the University of Vermont Family Medicine Residency where I am responsible for the graduate level education of 18 physicians annually and therefore, believe that I am uniquely suited to comment on the education physicians receive in pharmacotherapy.

Please understand that family physicians in Vermont highly value the role of psychologists play in patient care. It is through collaborative work together that we are most successful.

We are not here to debate the need for increased access to mental health care services in the State. Additionally, I am not here to suggest that physicians do not understand that mental health outcomes are often better when psychological and pharmacological therapies are combined. We believe that psychologists and physicians have a synergistic role.

That synergy comes from two highly educated and specifically trained individual combining their expertise to improve the outcome. In this case, we believe that psychologists are highly trained to diagnosis and counsel those with emotional, behavioral, and mental health disorders.

Physicians, more specifically family physicians in this case, have four years of undergraduate medical education with extensive pharmacological training followed by a minimum three years of graduate medical clinical training that includes both didactic and clinical training in pharmacology. Additionally, residents and attending physicians (meaning those that have completed ALL training and are fully licensed to practice medicine independently) work alongside clinical pharmacists (Doctorate in Pharmacy) to ensure safe prescribing of psychotropic medications. For instance in my work flow, we have an inpatient pharmacist dedicated to the family medicine service who rounds with us three days a week. And in the outpatient setting, we have a clinical pharmacist with us 3-4 sessions a week. These pharmacists work with us in real-time as a consult to ensure that we are prescribing psychotropic medications safely. This includes things like considering how medications are going to be initiated, titrated, and at times weaned off. This requires extensive knowledge to prevent side effects, adverse effects, and withdrawal symptoms.

Clinical examples of this would include:

- prescribing benzodiazepines for anxiety that are controlled substances with a very high abuse potential that require regular patient visits, review of VPMS, and sometimes urine drug screens or pill counts if there is consider of medication misuse or diversion,
- prescribing the commonly known SSRI (selective serotonin reuptake inhibitors) are used to treat anxiety and depression but can cause significant side effects in the children and adolescents such

as increased suicidality, cardiac arrhythmias in adults (especially if combined with other medications that can also cause cardiac arrhythmias), and symptoms such as hyponatremia in the elderly that can lead to confusion and falls. This can lead to the need for extra monitoring such as lab draws and EKGs (a type of heart monitoring).

- And, finally, antipsychotic medications that are used to treat psychosis or bipolar disorder but often also used to treat aggression and delirium behaviors in dementia patients. This class of medication can have a significant side effect of weight gain which can lead to medical conditions such as diabetes and high blood pressure and therefore require lab monitoring. It also carries a Black Box warning of sudden cardiac death when used in the elderly that leads to nuanced conversations with patient's family members and medical proxies about goals of care and the acceptance of risk of death for patient safety and comfort.

I have provided these examples for you, not so that you can be impressed by my medical knowledge of some of the major classes of psychotropic medications, but to outline the complex medical decision making and the tools physicians use to make those decisions on a daily basis. This kind of background knowledge is not easily obtained in a master's in psychopharmacology with 100 clinical consultations as suggested with Vermont's proposal. It comes from years of focused training during undergraduate and graduate medical education. To give this prescribing authority to psychologists would be irresponsible and would, further, be putting them at risk for being responsible for a major adverse events such as hospitalization or death.

Beyond pharmacology knowledge, when patients receive medications from multiple sources there is a high risk of adverse events. This is because, patients are often confused by medications – what they take and when. This can lead to patients being prescribed duplications medications, medications that negatively interact with each other, and, even worse, not taking medications that their providers believe them to be taking. In a perfect world, we would have clear, real-time communication between psychologists and physicians regarding these visits. The truth is that this does not occur, and due to the sensitive nature of mental health illness, there are significant barriers in place preventing this communication.

What we would like to advocate for is improved collaborative care. When psychologists and physicians actively communication with each other, sharing patient information, concerns and successes we improve comprehensive patient care. The goal would be to have a collaborative care model such as that allows patients to stay in their primary care home and improve access and collaboration with psychology and psychiatry. Not only does this prevent fragmentation of care – patients and families prefer it! They would much rather receive care in their medical home. Finally, it helps to remove stigma around mental health care by keeping it part of a patient's routine care, right-alongside their diabetes and heart disease.

To conclude, I would like to re-state that the Vermont Academy of Family Physicians is against extending prescribing authority to doctorate-psychologists in Vermont.

Simha E. Ravven, M.D.
10/29/21
Public Comment - Vermont Office of Professional Regulation – Prescriptive authority for psychologists

I want to thank you for the opportunity to share my thoughts on expansion of prescriptive authority to psychologists.

To share my background, I am President of the Vermont Medical Society and I serve on faculty at the University of Vermont and Yale University School of Medicine in the Division of Law & Psychiatry. I am the Chief Medical Officer at Howard Center in Burlington. I am trained in adult and forensic psychiatry. I am speaking in my role as President of Vermont Medical Society.

Why I am commenting today

Share the goal of prioritizing mental health services needs in Vermont. We know that there are currently enormous needs for mental health care across all age ranges in both urban and rural areas in Vermont. Needs especially pronounced in serving children.

I am speaking in opposition to expansion of prescribing authority to psychologists.

I enormously value my psychologist colleagues expertise and work and close collaboration with psychologists in clinical work and teaching.

There is often confusion about the difference between psychiatrists and psychologists. While psychologists are valuable mental health professionals and respected colleagues, psychiatrists are medical doctors. Psychologists treat mental disorders with psychotherapy and other behavioral interventions. A psychologist has an advanced degree, usually a Ph.D. in psychology or Doctor of Psychology (Psy.D.). Psychologists often have extensive training in research or clinical practice and in psychological testing and evaluation, but they do not have medical training.

Training to become a medical doctor, and a psychiatrist began with four years of undergraduate science courses, including general chemistry, organic chemistry, biology, physics, and courses in calculus.

The next four years of medical school focused on education in biology, pharmacology, pathology of diseases, drug-drug interactions, diagnosis and treatment, and recognition of medical illnesses such as strokes, to eye disease, to autoimmune conditions.

Medical training of Physicians, Advance practice nurses and PAs involves thousands of hours of instruction including rigorous testing and standardized exams on safe practice. This structure in place for Physicians, Advance practice nurses and PAs Provides the necessary background to diagnose and treat illnesses that present with changes in behavior and mental status and

recognize medical illness presenting in ways that may be confused with psychiatric illness – like stroke, sometimes cardiac illness, thyroid disease, even brain tumors.

The VMS opposes expanding the scope of practice for psychologists to include prescriptive authority. While psychologists are experts in important behavioral interventions and are highly valued members of the mental health care community, prescriptive authority for psychologists should not be expanded for the following reasons:

Insufficient education and training in medicine and physiology. The proposed course of training is brief, and inadequate.

Psychiatric medications used to treat mental illnesses are among the most potent in modern medicine. They affect the central nervous system, but also affect other organ systems and interact with other medications. With these benefits come real risks. These medications have potentially disabling and life-threatening side effects if improperly prescribed. Ongoing medical assessment, including ordering and interpreting labs and EKGs, is required during maintenance of medication.

Patient harm and prescribing complexity. Patient safety must be paramount when considering a scope increase in law. Granting psychologists the authority to prescribe controlled substances Schedule I-V is not only unnecessary, it is contrary to sound medicine, does not recognize the complexity of caring for a patient and all of their medical needs, and most importantly could pose risk of significant harm to patients.

Unsafe solution to medical professional shortages. While there is a need to increase access to adequately trained medical professionals, and while psychologists are highly valued members of the mental health care team, expanding prescriptive authority to insufficiently trained clinicians poses great risk to the public without increasing access to adequate care. We have seen that psychologists generally practice in the same geographic areas as psychiatrists and, do not overall, practice in areas underserved by medical professionals.

As I have thought about this issue, I have discussed it with many psychologist colleagues whose opinions I have great respect for. None of my colleagues were in favor of psychologist prescribing. Psychologists have specific and important expertise and medicine and prescribing is outside the scope of psychologist training and expertise. Our communities do need psychologists conducting psychotherapy, engaging in research and performing psychological testing to address the very real mental health needs.