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Positioning psychiatric pharmacists to improve mental health care

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Abstract

Psychiatric pharmacy continues to grow and look to the future with a focus on helping individuals recover from mental health and substance use disorders. The American Association of Psychiatric Pharmacists (AAPP) considers Board Certified Psychiatric Pharmacist (BCPP) the gold standard credential that all psychiatric pharmacists should attain to demonstrate specialized knowledge and expertise in psychiatry. BCPPs are part of collaborative interprofessional teams and practice in hospitals, clinics, and diverse health systems. Two out of 3 BCPPs practicing in clinics have prescriptive authority. BCPPs improve access, safety, medication adherence, and therapeutic outcomes. Every person with a mental health and substance use disorder should have access to a BCPP providing comprehensive medication management (CMM) and psychotropic stewardship aimed at improving population health. BCPPs are in demand owing to their expertise. AAPP envisions growth and expansion of the BCPP role in many areas including coordinating psychiatric transitions of care and telehealth services, managing long-acting injectable medication clinics, providing pharmacogenomic consultation, conducting clozapine and lithium monitoring, managing medications for substance use disorders, leading medication groups, CNS drug development, research, and provider education. To prepare the workforce, colleges and schools of pharmacy should hire BCPPs for optimal curriculum development, and each student pharmacist should have an opportunity to develop a therapeutic alliance with a person recovering from psychiatric illness. Postgraduate year (PGY) 1 residencies should offer learning experiences in psychiatric pharmacy to prepare residents to enter an expanded number of PGY2 psychiatric pharmacy residencies, ultimately earning their BCPP and being well positioned to improve mental health care.

Keywords: psychiatric, pharmacist, profession, mental health, vision

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Introduction

The specialty of psychiatric pharmacy was established in the 1970s by clinical pharmacy leaders with special interests in directly caring for persons with psychiatric diagnoses taking CNS medications.[1] These pharmacy leaders recognized that their educational, practice, and advocacy needs were not being met by other pharmacy organizations, and in 1998, the College of Psychiatric and Neurologic Pharmacists (CPNP) was founded as the professional home for psychiatric pharmacists.[2] In 2022, CPNP transitioned to the American Association of Psychiatric Pharmacists (AAPP) to increase clarity regard-

TABLE 1: Settings/practice roles expand each decade for psychiatric pharmacists[3-9]

Time Frame	Practice Settings	Roles and Outcomes
1975+	Psychiatric hospitals Some community clinics Institutions for intellectually disabled	Consultation/recommendations Pilot pharmacist prescribing Decreased inappropriate psychiatric medication prescribing Fewer EPSE in clinics with pharmacist integration Lowered costs of psychiatric care
1980+	Psychiatry clinics at academic medical centers and VHA Expanded community clinics Expanded hospital practice	First LAI clinics with pharmacists administering treatment Pharmacist-led mood disorder clinics embedded within psychiatry clinics Expanded drug therapy consultation Medication education groups
1990+	Providers in specialty clinics—depression, clozapine, dementia VHA Forensic settings	Managing caseloads of patients in collaboration with psychiatrists Therapeutic drug level monitoring Improved adherence and medication safety
2000+	Integrated in primary care—CMM Pharmaceutical industry HMO	Expanded caseloads Pharmacogenomic consultation Billing for services Education and drug development Improved access to care
2010+	Patient-centered medical homes, CMM, medication management services Telehealth	Collaboration with PCPs, other specialists in coordinating care—CMM Improved access to care in more settings as advanced practice providers Value-based care Substance use recovery
2020+	HMOs and DMH clinics across country recruit BCPPs to provide direct patient care Psychotropic stewardship	Drug policy development Rational deprescribing Improved drug safety Expand access to quality mental health care

CMM = comprehensive medication management; DMH = Department of Mental Health; EPSE = extrapyramidal side effects; HMO = health maintenance organization; LAI = long-acting injectable; PCP = primary care provider; VHA = Veterans Health Administration.

ing its focus on improving the lives of those with mental health and substance use disorders. AAPP commissioned this paper to articulate a vision of the future for its members and constituents, and the AAPP Board of Directors approved of the recommendations it contains.

Evolution and Growth of Psychiatric Pharmacy

Psychiatric pharmacy specializes in treating patients living with mental health and substance use disorders. Psychiatric pharmacists have extensive training and expertise in medication treatment of and the psychosocial factors inherent within these conditions. Psychiatric pharmacists work collaboratively with medical and mental health interprofessional teams to improve patients' short- and long-term outcomes. They partner with and educate patients, families, and providers, and they advocate for the appropriate use of medications through comprehensive medication management (CMM).[3]

Psychiatric pharmacy and AAPP have grown and evolved significantly over the past 50 years. AAPP was founded by 116 members in 1998 and has grown to over 3000 members in 2021.[2] AAPP has flourished and has continued to promote the expansion and advancement of psychiatric pharmacy in the United States and internationally. In 2007, the ASHP Psychiatric Pharmacy residency standards first required a postgraduate year (PGY) 1 residency as a prerequisite to a psychiatric specialty residency.[1] It took several years for residency programs to implement the change and expand PGY2 psychiatric pharmacy residencies. Over the past 10 years, PGY2 psychiatric pharmacy residency positions grew from 31 (2011) to 100 (2021).

Practice roles have also expanded continually, with decade milestones illustrated in Table 1.[4-9] In recent years, practice roles have had increased emphasis placed on primary care integration, care of substance use disorders, and addressing aftereffects of the COVID-19 pandemic. The BCPP credential was established in 1996, and it has grown to include over 1300 certified pharmacists in 2021.[10] Psychiatric pharmacy must grow and

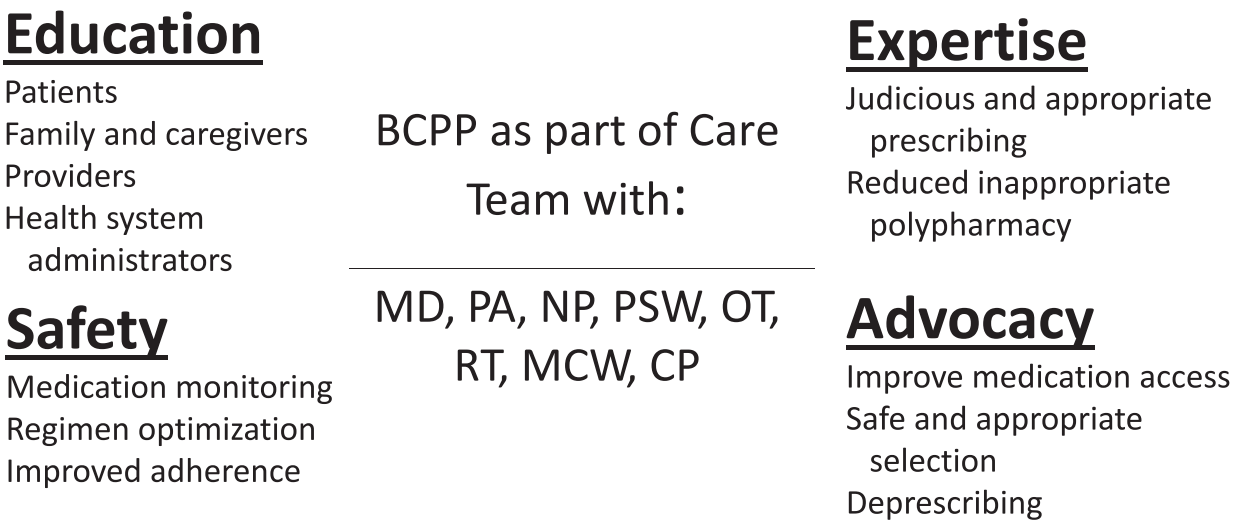

FIGURE: Board Certified Psychiatric Pharmacist expertise essential for psychotropic stewardship[3,7,16-18] (MD = physician; PA = physician assistant; NP = nurse practitioner; PSW = psychiatric social worker therapist; OT = occupational therapist; RT = recreational therapist; MCW = medical case worker; CP = community pharmacist)

evolve to meet the needs of patients and the health care system into the future, which is why AAPP is expanding its vision for the ideal practice of psychiatric pharmacy.[2] AAPP seeks to further increase mental health care equity and quality for patients by promoting a qualified and diverse workforce and fostering a climate of inclusion.

BCPP Is the Gold Standard

AAPP supports all pharmacists working in mental health and recommends that psychiatric pharmacists providing patient care should attain the BCPP even if they already have other certifications (eg, Board Certified Pharmacotherapy Specialist, Board Certified Ambulatory Care Pharmacist, Board Certified Geriatric Pharmacist). Obtaining the BCPP credential validates the pharmacist's knowledge and skills in caring for individuals with psychiatric illness.[10] BCPPs are highly trained mental health providers who assess the complexities of psychiatric illness in terms of social determinants of health, psychosocial, and biological factors influencing psychiatric symptoms and response to treatment. The BCPP credential signifies skill in collaborating with interprofessional teams to make appropriate referrals for preventative care and nonpharmacologic treatment. AAPP acknowledges that it can take time for a pharmacist to become eligible for and obtain the BCPP, particularly if the individual is seeking eligibility through practice experience. However, in this paper, as we cast the vision for all psychiatric pharmacists to obtain BCPP certification, *psychiatric pharmacist* and *BCPP* are used interchangeably with the understanding that psychiatric pharmacists who have not yet attained BCPP are working toward achieving BCPP credentials. AAPP helps pharmacists work toward and maintain their BCPP by providing education, practice resources, and advocacy. AAPP advocates for BCPPs to be used more effectively in the health care system through its efforts in professional and government affairs.[2]

Ideally, BCPPs will carry out expanded patient care roles in more health care settings. One example of an expanded role for BCPPs is psychotropic stewardship. Analogous to antimicrobial stewardship,[11-15] psychotropic stewardship promotes the safe and appropriate use of psychotropics, minimizing unintended consequences of their use and promoting improved patient outcomes. AAPP envisions that every patient with a psychiatric diagnosis will have their medication therapy reviewed, appropriately managed, and optimized because of access to a psychiatric pharmacist performing population-level review of medication use as part of a psychotropic stewardship team (Figure).[3,7,16-19] The Centers for Medicare and Medicaid Services (CMS) has included the salary of the antimicrobial stewardship pharmacist in the cost of implementing a successful antimicrobial stewardship program. Similarly, the salary of a psychotropic stewardship pharmacist should be included in the cost of implementing a successful psychotropic stewardship program.[11]

Additional examples of expanded roles for BCPPs include consistent integration into interdisciplinary care teams including primary care, geriatrics, pediatrics, and community pharmacy teams. AAPP envisions that health care providers will consult with and refer their patients to psychiatric pharmacists for CMM to ensure each medication is appropriate, effective, safe, and convenient.[3,7,16-19]

AAPP envisions that BCPPs will rigorously and consistently measure and demonstrate the value they bring to the

TABLE 2: Practice descriptions of American Association of Psychiatric Pharmacists member psychiatric pharmacists[a]

Description	Percentage Response[b]
Practice setting	
Federal practice setting	29.3
Clinical practice setting type	
Hospital inpatient	47.6
Hospital outpatient	5.0
Both hospital inpatient and outpatient	13.8
Nonhospital outpatient	16.2
Other	6.3
Did not respond	1.1
Prescriptive authority	
Overall collaborative practice/Veterans Administration scope of practice/ alternative prescriptive authority	46.5
Outpatient prescriptive authority	69.8
Inpatient prescriptive authority	22.0
Prescriptive authority not specified	8.2

[a]Adapted from Silvia et al.[21] Table 2 represents survey of Board Certified Psychiatric Pharmacists and all active pharmacist members of the College of Psychiatric and Neurologic Pharmacists as of 2019.

[b]Response rate = 334/1015 (32.9%). Values may add up to more than 100% as respondents were able to select more than 1 response to this survey question.

patient and the health care system through their expertise, innovation, and responsiveness as the future of psychiatric care unfolds. Finally, AAPP envisions the pharmacy workforce is educated and equipped to improve the mental health of the population in all pharmacy practice settings. The BCPP presence within colleges and schools of pharmacy and other health care professional training environments, as well as a critical mass of psychiatric pharmacy residency programs is important to ensure that pharmacists acquire the necessary knowledge and skills to best serve our population. Each of these areas are further described in the sections below.

BCPPs Expand Capacity to Provide Care for Mental Health and Substance Use Disorders

BCPP training and certification includes management of substance use disorders, which makes BCPPs particularly well suited to care for individuals with substance use disorders given the 2-fold increased rate of psychiatric diagnoses in this population.[20]A 2019 electronic survey sent to all pharmacist members of AAPP and nonmember BCPPs in the United States provides evidence for the ability of psychiatric pharmacists to expand access to mental health and substance use disorder treatment in hospitals, clinics, and diverse health systems.[21] Among the 334 survey respondents (88% BCPP), 46.5% reported having prescriptive authority as part of their practice, and 41.3% reported treating nonpsychiatric as well as psychiatric illnesses. Practice settings were evenly split between inpatient and outpatient. Prescriptive authority was more likely in outpatient practices and in those treating nonpsychiatric illnesses (Table 2).[21]

By 2030, the Healthcare Research and Services Administration[22] predicts a 32% shortfall in psychiatrists, while demand for mental health services is likely to increase. In light of this increased need for mental health care, the lack of available resources for mental health and substance use disorder treatment is concerning. Psychiatric pharmacists are well equipped to positively impact access to care owing to their expertise in both pharmacologic management of psychiatric disorders and their understanding of the psychosocial factors inherent within these illnesses. Psychiatric pharmacists can expand capacity and improve medication-related outcomes through direct interaction with patients, physicians, and other providers using telehealth technology in rural communities particularly impacted by limited access to care.[3,7,8]

BCPPs Provide CMM

With their training and experience working with patients diagnosed with psychiatric disorders, BCPPs collaborate with physicians and other providers to increase capacity and improve medication-related outcomes. BCPPs can provide CMM services to identify and correct medication-related problems. Psychiatric pharmacists have demonstrated their role in providing CMM in ambulatory and inpatient settings within community-based health care systems, state operated services, and the US Department of Veterans Affairs.[3,7,17,18] Appropriate reimbursement for psychiatric pharmacy services is needed to ensure the number of BCPPs can meet the increasing demand for services.

BCPPs who collaborated with primary care providers (PCPs) and psychiatrists reduced workloads, increased access to care, improved medication-related outcomes, and lowered costs.[8,17] The presence of BCPPs on treatment teams has also increased medication adherence, improved patient satisfaction, and improved patients' knowledge of medication treatment plans.[7,8,18,19] BCPPs are ideally suited to improve transitions of care, provide pharmacogenomic consultation, and ensure appropriate monitoring for children prescribed antipsychotics.[3,7,9]

BCPPs Are Critical to the Patient-Centered Medical Home

BCPP-provided CMM should be expanded in Certified Community Behavioral Health Clinics (CCBHC) and

Patient-Centered Medical Homes to improve access to care for individuals with OUD and for those prescribed long-acting injectable (LAI) antipsychotics or medications that require frequent monitoring (eg, clozapine, lithium, valproate). In 2017, the National Council for Mental Wellbeing (NCMW)[23,24] endorsed the utilization of behavioral health professionals, including psychiatric pharmacists, to alleviate the shortage of psychiatrists. The NCMW stated collaboration with psychiatric pharmacists would be critical to improve patient access to mental health care. All patients with a psychiatric diagnosis treatable with pharmacotherapy should have access to CMM provided by psychiatric pharmacists. BCPPs infuse a unique expertise to the treatment team, adding value and cost savings while simultaneously improving outcomes and filling gaps in care.[3,16,17,23,24]

BCPPs Can Systematically Improve Population Mental Health

Appropriate and safe use of psychiatric medications is vital for providing quality care to those with mental health and substance use disorders. Polypharmacy, high doses, and inappropriate use of psychiatric medications in vulnerable populations can lead to worsened outcomes, including increased hospitalizations, increased side-effect burden, and increased morbidity and mortality.[7,9,13-18] Psychotropic stewardship and similar programs targeted at inappropriate prescribing in older patients, in children and adolescents, in those with posttraumatic stress disorder, and in those receiving antipsychotic therapy are now being implemented within various health care systems to improve safety and quality of care, while potentially reducing health care costs.[3,14,18]

Health systems need to establish a team-driven population management process to identify patients who would most benefit from CMM by a psychiatric pharmacist. The process should be focused on improving individual patient outcomes and experience via increased application of BCPP knowledge and skills to individual patient circumstances and needs instead of establishing preset rules or controlling cost. Such a process could capture the patients that are not directly referred for CMM that may need it. We propose the term *stewardship* for this process because of its similarities to antimicrobial stewardship and other stewardship programs.[11-16] The expertise of BCPPs is especially valuable in providing CMM to the growing number of those living with autism spectrum disorders, neurocognitive disorders, and traumatic brain injury who require medications.[3,9,18]

Facility-wide antimicrobial stewardship programs are required by CMS in hospitals[11]; similarly, all health care systems should implement psychotropic stewardship programs that involve psychiatric pharmacists as the experts in the safe and appropriate use of psychiatric medications.[13-16] Psychiatric pharmacists' expertise and specialized knowledge allows for the critical evaluation necessary to ensure medication regimens are appropriate for individual patients.

As experts in psychiatric pharmacotherapy and CMM, BCPPs improve patient outcomes including increased medication adherence, achievement of treatment goals, avoidance of hospitalization, minimization of inappropriate prescribing, and management of adverse effects.[3,7,8,17] Every patient with a psychiatric diagnosis treatable with medication should have access to a psychiatric pharmacist accountable for optimal medication therapy.

The COVID-19 pandemic has intensified a mental health pandemic associated with significantly increased alcohol and substance use.[25] More than one-third of patients in the acute phase of COVID-19 suffer from insomnia, anxiety, and depression.[26] COVID-19 survivors are at increased risk for inflammation of the brain and nervous system, contributing to longer-term psychiatric symptoms including cognitive deficits.[27] The additional complex mental health care needs associated with COVID-19 emphasize the urgency to increase access to BCPP-provided CMM in all health systems.

Innovation and Responsiveness

BCPPs Guide Appropriate Use of Emerging Pharmacologic Treatments, Digital Health, and Online Technologies

As new pharmacologic treatments become available in psychiatry, BCPPs will lead efforts to guide appropriate use, establish their place in therapy, and evaluate outcomes of these new treatments while working within interdisciplinary teams. BCPPs must learn and adopt the newest advancements in pharmacogenomics, digital health, and online technologies to stay current and communicate effectively with patients and interdisciplinary care teams.[28] The COVID-19 pandemic has thrust our nation's health care system further into the digital age, highlighting the importance and evolution of health care delivery via technologies such as telehealth, digital apps, and online memberships.[29] Psychiatric pharmacists should keep abreast of gaps in care and use these emerging technologies and practice models to advance patient care and coordinate care with other providers. Patients with mental illness and nonpsychiatric providers should have access to directly consult with BCPPs through digital apps and online technologies.[29]

BCPPs Establish Partnerships to Improve Transitions of Care

The prevalence of mental health and substance use disorders is increasing, and access to medications remains

TABLE 3: Key areas where psychiatric pharmacists address care gaps[3,17,18,28,29]

Service	Gap in Care Addressed by Service	Setting
Transitions of care medication reconciliation and education	Ensure appropriate drug, dose, schedule, monitoring, follow-up, and patient/caregiver comprehension in new care setting	Inpatient to step-down, subacute facilities or community care
Telehealth CMM	Improved access to mental health and substance use recovery services in underserved areas	Clinics, subacute facilities
LAI administration and care coordination	Increased access to LAIs for treatment of severe mental illness	Inpatient, clinics, community pharmacy consultation
Medication education groups	Mental health stigma and lack of knowledge about psychiatric medications among patients/families/caregivers	Inpatient, clinics, adolescent health centers, day-treatment programs
Clozapine clinic and inpatient monitoring	Improved access to most effective antipsychotic Prevention of adverse outcomes	Clinics, hospitals Point of care testing at community pharmacies
Therapeutic drug monitoring	Optimization and improved safety of antipsychotics, mood stabilizers (eg, lithium), and antiseizure medications	Inpatient, subacute facilities, clinics
Deprescribing of benzodiazepines and therapeutic duplication	Decreased risk of adverse events when benzodiazepines are mixed with other CNS depressants such as opioids, alcohol, and muscle relaxants	Inpatient, clinics, subacute facilities, refill clinics
Pharmacogenomic consultation	Improved access to precision medicine Decreased misinterpretation of results	Inpatient, clinics Special populations such as youth and older adults
Improving medication treatment access	Improved access to medication treatment including for OUD and AUD	Inpatient, clinics, mobile health teams Assertive community treatment

CMM = comprehensive medication management; LAI = long-acting injectable.

a barrier for many patients. Psychiatric pharmacists should establish professional partnerships with providers in all health care settings including chain and independent community pharmacies. These partnerships provide for the opportunity to improve transitions of care, provide expert psychiatric medication consultation, and improve access to psychiatric treatments including clozapine and LAIs.[3,7,22,28] Psychiatric pharmacists should actively seek the most efficient, accurate processes to optimize transitions of care, using innovative technology to ensure accurate medication records and access. Table 3 describes how psychiatric pharmacists address care gaps.[3,17-19,21,28,29]

Psychiatric pharmacy was created from innovation and BCPPs must continue to practice to the fullest extent of their education or credential. As the profession continues to grow, psychiatric pharmacists must continue to share practice advancements, innovations, and research through presentations at professional meetings and publications in peer-reviewed journals. BCPPs engaged in CNS drug development, drug discovery, and educational positions in industry must continue to contribute to advancing practice through research, publications, advocacy, and support of educational programming. This dissemination of knowledge and heightened collegiality will ensure the continued evolution and vitality of psychiatric pharmacy.

Workforce

Continuing Education Should Include Mental Health Learning

Practicing pharmacists in all settings encounter psychiatric medications, and therefore each pharmacist's required continuing education hours should include mental health and substance use recovery content. Further, psychiatric and substance use recovery content should be included in all Board of Pharmacy Specialties certification and recertification examinations to address stigma and ensure the workforce is prepared to provide evidence-based care and collaborate with BCPPs to provide more advanced care for individuals with psychiatric diagnoses.

Residency Programs Should Include Learning Experiences in Psychiatry

All PGY1 pharmacy practice residency programs should collaborate with psychiatric pharmacists in their health

systems to develop hands-on learning experiences for PGY1 residents in psychiatry including substance use recovery. In addition to psychopharmacology, all PGY1 residents should receive training in core communication skills, mental status examination, mental health patient assessment, and shared decision making. These skills are essential for providing comprehensive, person-centered care.

Further expansion of PGY2 psychiatric pharmacy residencies and PGY1 residencies with learning experiences in psychiatric and substance use recovery is essential to achieve our vision for preparing the workforce. PGY1 residents with direct experience in psychiatric drug therapy decision making will be better able to provide whole person care and improve population health. Exposure to psychiatry in a PGY1 residency will lead to more residents pursuing the expanded number of PGY2 residencies in psychiatry, thus increasing the number of pharmacists immediately eligible for the BCPP examination. Increasing the number of BCPPs will expand access to advanced level care for those with psychiatric disorders,[3,10] which is especially important given the psychiatric provider shortage present in today's health care environment, a situation that is likely to persist into the future.[22]

BCPPs Are Essential Faculty Members

All Accreditation Council for Pharmacy Education (ACPE)–accredited pharmacy programs should have a BCPP on faculty to coordinate didactic coursework in psychiatric therapeutics and to collaborate with other board-certified clinical faculty to develop case-based learning modules that integrate psychiatric and medicine topics in real-world settings. Pharmacists who spend more than 50% of their time teaching in psychiatric settings should obtain their BCPP.

Student Pharmacists Need Training in Psychiatry

All ACPE-accredited pharmacy programs need to prioritize mental health and wellness. To this end, pharmacy programs must ensure each student's individualized curriculum includes a required learning experience where the student pharmacist can develop a therapeutic alliance with a person who happens to have one or more psychiatric diagnoses. By engaging in conversation with the individual, the student can overcome biases and fear that may prevent them from performing at their highest level to provide quality care. By *supported doing* in working with their preceptor to care for a person recovering from schizophrenia, bipolar disorder, or depression or from an AUD, the student pharmacist gains an awareness and appreciation of the significance of mental health to a person's wellbeing, including their own wellbeing.[29-31] By directly providing CMM to a person with a mental health or substance use disorder, the student pharmacist may feel less stigmatized and more willing to seek treatment to support their own mental health or substance use recovery. Mental Health First Aid[32] is a patient-centered course that can be added to pharmacy program curricula to improve mental health awareness, communication skills, and crisis intervention skills (eg, suicide prevention training) for student pharmacists. They can build on these skills during experiential learning.

Required learning experiences in acute care, ambulatory care, community pharmacy, and systems of care all have the potential to create opportunities for the student pharmacist to gain first-hand experience educating a person prescribed an antidepressant or explaining the need for lab monitoring when taking lithium or valproate, or the need for gradual taper of alprazolam to prevent withdrawal symptoms.[32] Community and primary care pharmacists increasingly provide both general mental health care and more specialized services including point of care CBC monitoring, LAI administration, and suicide screening and referral.[19,23,29] When these community or primary care pharmacists obtain a BCPP credential or establish a collaborative practice with a BCPP, it ensures each patient benefits from BCPP-level expertise. This is similar to PCPs referring to psychiatrists and psychiatrists referring back to PCPs. Further, ACPE requires each student pharmacist to gain experience as an interprofessional team member to learn from each other while building confidence and communication skills. Treatment teams providing mental health and substance use recovery are well suited to developing successful interprofessional collaboration skills.[30,33,34]

Conclusion

Psychiatric pharmacy has grown and evolved significantly over the last decade. AAPP's vision for the specialty in the coming decade embodies further evolution, a process that is necessary to meet the needs of the health care system and optimize outcomes for patients with psychiatric disorders. Table 4 shows 7 essential action steps. Psychiatric pharmacy needs to become synonymous with the performance of CMM and psychotropic stewardship, value-added approaches to optimizing pharmacotherapy use and outcomes for the individual patient and health system that are supported by data. Every patient with a psychiatric diagnosis should have access to a BCPP to ensure appropriate medication use, increased access to care, and improved patient outcomes. Use of telehealth and other technologies, consults to psychiatric pharmacists from other health care providers (including non-specialized pharmacists), and continued innovation by

TABLE 4: Seven key action steps are identified

Step No.	Action Step
1.	All pharmacists providing CMM for people living with psychiatric disorders should seek the BCPP credential as the gold-standard signifying specialized knowledge and skills as a psychiatric pharmacist.
2.	All pharmacists providing care and patients seeking care for psychiatric disorders should have access to consultation with or referral to a BCPP.
3.	Psychiatric pharmacists must continue to collect and publish data regarding their contributions to improvements in patient-centered care outcomes, including practice innovations and collaborations across multiple sites.
4.	CMM and psychotropic stewardship involving a BCPP should be available in all health systems.
5.	Each pharmacy student's individualized curriculum must include a learning experience where the student develops a therapeutic alliance with a person recovering from a psychiatric disorder.
6.	Residency programs should include learning experiences in psychiatry to prepare the workforce to care for persons with psychiatric disorders.
7.	Each pharmacy program must have a BCPP faculty member to teach psychiatric therapeutics and participate in curricular design that teaches person-centered care for individuals with psychiatric disorders.

BCPP = Board Certified Psychiatric Pharmacist; CMM = comprehensive medication management.

psychiatric pharmacists are vehicles to make this proposed standard a reality in tomorrow's health care system. This vision aligns with recent research among psychiatric pharmacists indicating growth and expansion is necessary and possible.[3,7,8,19]

Adjustments to the education provided to pharmacy learners that emphasizes direct contact with patients with psychiatric disorders will continue to populate the psychiatric pharmacy specialty with individuals who are equipped to provide person-centered care and embrace psychotropic stewardship and other innovations as standard practice. Finally, financial incentive and reimbursement for services provided by psychiatric pharmacists will help to ensure these standards continue to exist to optimize patient care.

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References

1. Stoner SC, Ott CA, DiPaula BA. Psychiatric pharmacy residency training. Am J Pharm Educ. 2010;74(9):163. DOI: 10.5688/aj7409163. PubMed PMID: 21301597.
2. College of Psychiatric and Neurologic Pharmacists [Internet]. About CPNP. Lincoln, NE: CPNP [cited 2022 Feb 21]. Available from: https://cpnp.org/about
3. Goldstone LW, Dipaula BA, Werremeyer A, Botts S, Hepburn B, Liu HY, et al. The role of board-certified psychiatric pharmacists in expanding access to care and improving patient outcomes. Psychiatr Serv. 2021;72(7):794-801. DOI: 10.1176/appi.ps.202000066. PubMed PMID: 33940946.
4. Stimmel GL. Clinical pharmacy services in mental health facilities. Hospitals. 1977;51(1):71-4. PubMed PMID: 830612.
5. Kook KA, Stimmel GL, Wilkins JN, Spangher GG. Accuracy and safety of a priori lithium loading. J Clin Psychiatry. 1985;46(2):49-51. PubMed PMID: 3918024.
6. Hamman GL, Egan TM, Wells BG, Grimmig JE. Injection site reactions with haloperidol decanoate 100 mg/mL. J Clin Psychiatry. 1991;51(12):502-4.
7. Goldstone LW, DiPaula BA, Caballero J, Park SH, Price C, Slater MZ. Improving medication-related outcomes for patients with psychiatric and neurologic disorders: value of psychiatric pharmacists as part of the health care team. Ment Health Clin [Internet]. 2015;5(1):1-28. DOI: 10.9740/mhc.2015.01.001.
8. Werremeyer A, Bostwick J, Cobb C, Moore TD, Park SH, Price C, et al. Impact of pharmacists on outcomes for patients with psychiatric or neurologic disorders. Ment Health Clin [Internet]. 2020;10(6):358-380. DOI: 10.9740/mhc.2020.11.358. PubMed PMID: 33224694; PubMed Central PMCID: PMC7653731.
9. Lu DH, Dopheide JA, Wang D, Jeffrey JK, Chen S. Collaboration between child and adolescent psychiatrists and mental health pharmacists to improve treatment outcomes. Child Adolesc Psychiatr Clin N Am. 2021;30(4):797-808. DOI: 10.1016/j.chc.2021.06.006. PubMed PMID: 34538449.
10. Board of Pharmacy Specialties [Internet]. Psychiatric pharmacy [cited 2022 Jan 29]. Available from: https://www.bpsweb.org/bps-specialties/psychiatric-pharmacy/.
11. American Society for Microbiology [Internet]. CMS final rule on antibiotic stewardship programs [cited 2022 Feb 23]. Available from: https://asm.org/Articles/Policy/2019/CMS-Final-Rule-on-Antibiotic-Stewardship-Programs
12. Centers for Disease Control [Internet]. Core elements of hospital antibiotic stewardship programs. Atlanta: US Department of Health and Human Services, CDC; 2014 [cited 2022 Jan 29]. Available from: https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements.pdf
13. The Society for Post-Acute and Long-Term Care Medicine [Internet]. Psychotropic stewardship: expanding the focus from antipsychotics to all [cited 2022 Feb 23]. Available from: https://apex.paltc.org/local/catalog/view/product.php?productid=210
14. Bell K, Hartmann C, Baughman AW. A pharmacist-led pilot using a performance dashboard to improve psychotropic medication use in a skilled nursing facility. BMJ Open Qual. 2020;9(3):e000997. DOI: 10.1136/bmjoq-2020-000997. PubMed PMID: 32816865; PubMed Central PMCID: PMC7430330.
15. Government of Western Australia Department of Health [Internet]. Western Australia [cited 2021 Nov 2]. Available from: https://pch.health.wa.gov.au/~/media/Files/Corporate/general%20documents/WATAG/Symposium/2015/PsychotropicStewardship.pdf
16. US Government Accountability Office [Internet]. VA mental health: VHA improved certain prescribing practices, but needs to strengthen treatment plan oversight. Washington: US Government Accountability Office Report to Congressional Requesters; 2019 [cited 2021 Nov 2]. Available from: https://www.gao.gov/assets/gao-19-465.pdf

17. Williams AM, Dopheide JA. Nonpsychiatric medication interventions initiated by a postgraduate year 2 psychiatric pharmacy resident in a patient-centered medical home. Prim Care Companion CNS Disord. 2014;16(6):10.4088/PCC.14m01680. DOI: 10.4088/PCC.14m01680. PubMed PMID: 25834765; PubMed Central PMCID: PMC4374824.
18. Werremeyer A, Orr M. Pharmacist-led medication education groups on an inpatient psychiatric unit—impact on readmissions and emergency department visits. J Am Coll Clin Pharm. 2018; 2(3):228-35. DOI: 10.1002/jac5.1060.
19. Mascari LN, Gatewood SS, Kaefer TN, Nadpara P, Goode J-VR, Crouse E. Evaluation of patient satisfaction and perceptions of a long-acting injectable antipsychotic medication administration service in a community-based pharmacy during the COVID-19 pandemic. J Am Pharm Assoc (2003). Online ahead of print. DOI: 10.1016/j.japh.2022.01.016. PubMed PMID: 35177374; PubMed Central PMCID: PMC8801897.
20. National Institute on Drug Abuse [Internet]. Comorbidity: addiction and other mental illnesses [cited 2021 Nov 2]. Available from: https://nida.nih.gov/sites/default/files/.
21. Silvia RJ, Lee KC, Bostwick JR, Cobb CD, Goldstone LW, Moore TD, et al. Assessment of the current practice of psychiatric pharmacists in the United States. Ment Health Clin [Internet]. 2020;10(6):346-53. DOI: 10.9740/mhc.2020.11.346. PubMed PMID: 33224692; PubMed Central PMCID: PMC7653732.
22. Health Resources and Services Administration [Internet]. Behavioral health workforce projections [cited 2021 Aug 20]. Available from: https://bhw.hrsa.gov/data-research/projecting-health-workforce-supply-demand/behavioral-health
23. National Council for Mental Wellbeing [Internet]. Pharmacists are untapped resource in treatment of mental illness - BH365; 2017 [cited 2021 Nov 29]. Available from: https://www.thenationalcouncil.org/resources/psychiatric-shortage-causes-and-solutions/.
24. National Council for Mental Wellbeing [Internet]. Leading a bold shift in mental health & substance use care: a CCBHC impact report [cited 2021 May 11]. Available from: https://www.thenationalcouncil.org/resources/2021-ccbhc-state-impact-report-transforming-state-behavioral-health-systems/?daf=375atetbd56
25. Centers for Disease Control and Prevention [Internet]. COVID-19 and people at increased risk for drug overdose [cited 2022 Feb 23]. Available from: https://www.cdc.gov/drugoverdose/resources/covid-drugs-QA.html
26. Morin CM, Bjorvatn B, Chung F, Holzinger B, Partinen M, Penzel T, et al. Insomnia, anxiety, and depression during the COVID-19 pandemic: an international collaborative study. Sleep Med. 2021;87:38-45. DOI: 10.1016/j.sleep.2021.07.035. PubMed PMID: 34508986; PubMed Central PMCID: PMC8425785.
27. Schou TM, Joca S, Wegener G, Bay-Richter C. Psychiatric and neuropsychiatric sequelae of COVID-19—a systematic review. Brain Behav Immun. 2021;97:328-48. DOI: 10.1016/j.bbi.2021.07.018. PubMed PMID: 34339806; PubMed Central PMCID: PMC8363196.
28. Weinstein S, Carroll JC, Jukic S, Mcgivney MS, Klatt P. Perspectives of a pharmacist-run pharmacogenomic service for depression in interdisciplinary family medicine practices. J Am Coll Clin Pharm. 2019;3(2):417-24. DOI: 10.1002/jac5.1175.
29. Rickles NM. Filling a global gap in access to critical mental health services: engaging pharmacists to enhance the care of individuals with mental health needs and illnesses. J Am Pharm Assoc (2003). 2020;60(5):S5-S6. DOI: 10.1016/j.japh.2020.06.012. PubMed PMID: 32690446; PubMed Central PMCID: PMC7366976.
30. Dopheide JA, Bostwick JR, Goldstone LW, Thomas K, Nemire R, Gable KN, et al. Curriculum in psychiatry and neurology for pharmacy programs. Am J Pharm Educ. 2017;81(7):5925. DOI: 10.5688/ajpe8175925. PubMed PMID: 29109559; PubMed Central PMCID: PMC5663650.
31. Harris SC, Bostwick JR, Werremeyer AB, Goldstone LW, Cates ME, Caley CF. Addressing the conflict between promoting wellness, perpetuating mental illness stigma and making psychiatric pharmacy education less intense. Am J Pharm Educ. 2021;85(7):8354. DOI: 10.5688/ajpe8354. PubMed PMID: 34544737; PubMed Central PMCID: PMC8499653.
32. Mental Health First Aid - National Council for Mental Wellbeing [Internet; cited 2022 Feb 23]. Available from: https://www.mentalhealthfirstaid.org/.
33. Danielson J, Besinque KH, Clarke C, Copeland D, Klinker DM, Maynor L, et al. Essential elements for core required advanced pharmacy practice experiences. Am J Pharm Educ. 2019;83(4): 6865. DOI: 10.5688/ajpe6865. PubMed PMID: 31223157; PubMed Central PMCID: PMC6581360.
34. Accreditation Council for Pharmacy Education [Internet]. Accreditation standards and key elements for the professional program in pharmacy leading to the Doctor of Pharmacy degree; 2016 [cited 2022 Jan 29]. Available from: https://www.acpeaccredit.org/pdf/Standards2016FINAL.pdf