



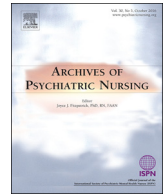
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journal homepage: www.elsevier.com/locate/apnuEffect of state regulatory environments on advanced psychiatric nursing practice[☆]Bethany J. Phoenix^{a,*}, Susan A. Chapman^b^a Department of Community Health Systems, University of California, San Francisco School of Nursing, United States of America^b Department of Social and Behavioral Sciences, University of California, San Francisco School of Nursing, United States of America

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ABSTRACT

The first key message in the landmark *Future of Nursing* report is that “Nurses should practice to the full extent of their education and training” (Institute of Medicine, 2011). Although there has been significant progress across states to remove or diminish barriers to the exercise of full scope of practice by advanced practice registered nurses (APRN), state regulations continue to unnecessarily restrict APRN practice in most of the United States. This article integrates data from studies that examine how state and local regulation affects psychiatric mental health APRN practice with the literature on how state scope of practice regulation affects the size and distribution of the broader APRN workforce, access to care, health care costs and prices, and innovation in health care service delivery. Common themes include confusion about regulatory requirements and mixed experiences of mandated physician supervision.

The first of the key messages in the landmark *Future of Nursing* report is that “Nurses should practice to the full extent of their education and training” (Institute of Medicine [IOM], 2011). This paper will provide an overview of regulatory changes for advanced practice registered nurses (APRN) that have been enacted to allow APRNs to practice at the top of their scope. We will then focus specifically on how local, state and federal regulation, as well as agency policies, affect the practice of Psychiatric-Mental Health APRNs (PMH-APRN), synthesizing insights from the broader literature on APRN scope of practice with findings from two studies of PMH-APRN scope of practice conducted by the authors (Chapman et al., 2018; Chapman et al., 2019; Phoenix et al., 2016). This paper will discuss how regulation of PMH-APRN practice differs across selected states, highlighting themes identified in our previous work. Additional qualitative data, such as informant quotes, that were not included in previous publications will be used to illustrate these themes. Although there has been significant progress since the *Future of Nursing* report's publication, this review identifies a number of regulatory obstacles that must be addressed before PMH-APRNs are able to practice to the full extent of their education and training.

Changes in APRN regulation and scope of practice

Recognizing that regulatory restrictions at the state and federal level constitute a significant barrier to achieving the goal of nurses utilizing their full scope of practice, the *Future of Nursing* report's first recommendation was for the removal of scope of practice barriers for advanced practice registered nurses (IOM, 2011). Recommended actions at the federal level included expanding Medicare coverage of services provided by APRNs and increasing Medicaid reimbursement rates for APRNs providing primary care (IOM, 2011).

The recommendations most likely to impact APRNs' ability to practice at the top of their scope were directed at the states. These included encouraging state legislatures to adopt regulations that conform to the National Council of State Boards of Nursing (NCSBN) Model Nursing Practice Act and Model Nursing Administrative Rules, and directing the Federal Trade Commission to review state regulation of APRN practice for anticompetitive effects that do not contribute to the public's health and safety (IOM, 2011).

In line with the recommendations of the *Future of Nursing* report, 18 U.S. states and territories have now adopted all key elements of the NCSBN Model Nursing Practice Act (NCSBN, 2019). These include independent practice and prescribing, specific criteria for licensure, and

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standardized titling for the four APRN roles (nurse practitioner, clinical nurse specialist, nurse midwife and nurse anesthetist; [NCSBN, 2012](#)). Twelve additional states and territories now meet at least 75% of these key elements. Nurse practitioners (NP) now have prescriptive authority in all states and full practice authority in 22 states and the District of Columbia ([American Association of Nurse Practitioners \[AANP\], 2018](#)). Clinical nurse specialists (CNS) have prescriptive authority in 38 states and the District of Columbia and have independent prescriptive authority in 19 of these ([National Association of Clinical Nurse Specialists \[NACNS\], 2015](#)).

There have also been significant changes at the federal level to remove restrictions on APRN practice. On January 13, 2017, the final rule went into effect in the Veterans Health Administration (VHA), the largest integrated health care system in the U.S., to allow full practice authority (FPA) for certified NPs, CNSs and CNMs when acting within the scope of their VA employment ([Government Printing Office \[GPO\], 2016](#)). The Federal Register notes, “Standardization of APRN full practice authority, without regard for individual State practice regulations, helps to ensure a consistent delivery of health care across VHA by decreasing the variability in APRN practice that currently exists as a result of disparate State practice regulations” ([GPO, 2016](#)). A subsequent directive specified processes for clinical privileging, but noted that “facility leadership must decide if they are going to implement FPA” ([Department of Veterans Affairs, 2017](#)). APRNs in the Department of Defense had previously obtained full practice authority. Currently, a military PMH-APRN workgroup is working on standardizing role functions across the services (S. Oboza, personal communication, November 6, 2019). These state and federal legislative and regulatory changes since the release of the *Future of Nursing* report ([IOM, 2011](#)) have greatly expanded the number of APRNs who are able to practice without unnecessary restriction, especially in the western states and in the VHA. However, many populous states such as California, Texas and Florida continue to constrain APRNs from exercising full scope of practice. This patchwork of different state laws and regulations governing APRN practice can impinge on patient care when APRNs treat patients who live across state lines or use emerging technologies such as telehealth.

Substantial literature on APRN practice identifies numerous benefits to patients and the health care system that include: greater access to care, particularly in areas with lower socioeconomic and health status ([Buerhaus et al., 2015](#)); safe and high-quality care ([Newhouse et al., 2011](#); [Stanik-Hutt et al., 2013](#)); and fewer avoidable hospitalizations in states with full scope of practice ([Oliver et al., 2014](#)). Since a large majority of APRNs are nurse practitioners who function in primary care roles, much of the available literature on APRN outcomes of care focuses on NPs practicing in primary care settings.

Psychiatric Mental Health Advanced Practice Registered Nurses (PMH-APRN) may be credentialed under either the CNS or NP title. PMHNPs and PMHCNSs are generally governed by the same state laws and regulations that apply to others in these APRN roles, although Maryland and Massachusetts grant a broader scope of practice to PMHCNSs than are granted to other Clinical Nurse Specialists ([NACNS, 2015](#); [NACNS, 2016](#)). Due to factors that included broader public and regulatory recognition of the Nurse Practitioner title and the greater degree of similarity in NP scope of practice and title recognition across states, graduate psychiatric nursing education has gradually shifted from PMHCNS toward PMHNP role preparation for the past several decades. In 2014, the American Nurses Credentialing Center (ANCC) retired its PMHCNS exams, so current graduates from PMH-APRN programs are educated and certified as PMHNPs.

Research on impact of regulatory environments of PMH-APRN practice

Since PMH-APRNs are only one subgroup of the broader APRN workforce, there has been comparatively little published literature that

focuses on PMH-APRN practice. Studies reviewed by [Fung et al. \(2014\)](#) indicate positive outcomes from interventions led by PMH-APRNs, but these studies were too disparate in design, setting and outcome measures to conclusively describe the impact of PMH-APRN services.

The paucity of research specific to PMH-APRN practice spurred our interest in examining how PMH-APRNs are affected by state regulatory environments. The authors have conducted two studies with this focus and their methodology and major findings have been published previously, as noted above. The first study, funded by the Robert Wood Johnson Foundation, was a study in California's public mental health system that examined organizational factors affecting PMHNP practice, compensation, and economic contribution to the agencies where they are employed ([Chapman et al., 2018](#); [Phoenix et al., 2016](#)). The second was a qualitative comparative case study exploring the effects of state scope of practice regulation on PMHNPs in five states with varying levels of NP practice autonomy ([Chapman et al., 2019](#)) that was funded by the National Council of State Boards of Nursing. Study objectives included identifying how state scope of practice regulation and related policies affect patterns of PMHNP practice and their contributions to patient care. Details on study design, methodology, data analysis, and results may be found in the publications cited.

This article will provide a brief overview of each study and present examples specific to how state and local regulation may affect the practice of PMH-APRNs. Our findings will be situated in the context of available literature on how factors such as mandated physician supervision affect APRN practice overall.

PMHNP practice in California's public mental health system

We conducted our initial study in five county behavioral health systems in California, which is categorized as a restricted practice state ([AANP, 2018](#)). Because Clinical Nurse Specialists do not have prescriptive authority in California, we chose to focus on the practice of PMHNPs. California has historically had a lower ratio of PMH-APRNs per 100,000 population than the national average (1.0 for California vs. 3.3 for the U.S.; [California Healthcare Foundation, 2013](#)). Until recently there was only a handful of PMHNP programs in the state, although the number has grown in the past 10 years. Given this recent history of low PMH-APRN availability, many public behavioral health systems in the state have yet to include PMHNPs in their staffing mix, despite the pressing need for more providers with prescriptive authority.

California counties that employed PMHNPs were selected to represent rural, urban and suburban counties of a range of sizes in different regions of the state. Study aims included assessing how different models of care used PMHNP skills and describing facilitators and barriers to PMHNPs fully using their skills and expertise ([Phoenix et al., 2016](#)). The study combined quantitative information on salaries and staffing patterns with qualitative data obtained through semi-structured interviews with key stakeholders in each county ([Chapman et al., 2018](#)). These included PMHNPs, psychiatrists, mental health directors, mental health medical directors, human resources managers, and financial and billing staff, for a total of 50 informants.

One of the striking themes in the interview data was the amount of confusion about NP roles and areas of specialization. This first became apparent when we were recruiting counties for the study and had to reject one of the interested counties since the NPs they hired for PMHNP job duties were neither educated nor certified as PMHNPs. Several informants in human resources positions were unaware that there is a national PMHNP certification ([Phoenix et al., 2016](#)). This is not surprising, given that available information from the California Board of Registered Nursing (BRN) provides no information to educate stakeholders about PMHNP practice and credentialing. A [California BRN \(2011\)](#) publication about nurse practitioner practice states that NPs practice in “primary health care” and does not mention psychiatric mental health nursing as an area of NP specialization, although recent data identify 8% of the state's NPs as being educated as PMHNPs ([Spetz](#)

et al., 2018).

Confusion was also common about what was required for physician “supervision” (terminology used in state regulations) of PMHNPs. We heard reports of psychiatrists refusing to supervise PMHNPs because of concerns about their own liability for the PMHNP’s practice. Levels of supervision ranged from minimal to no supervision to requiring periodic psychiatrist visits with patients managed by PMHNPs. Some experienced PMHNPs described a more collegial model of peer supervision with their collaborating psychiatrists.

A fiscal analysis based on comparing total costs of employing PMHNPs to billing revenue generated by PMHNPs indicated that they made a positive net contribution to those organizations that employed them (Chapman et al., 2018). There was substantial consensus that PMHNPs in these systems functioned very similarly to psychiatrists, and billing and productivity were similar. For both groups, the primary billed service was medication management. Despite the similarity in job duties and productivity, there was a substantial pay differential, with psychiatrists typically paid at least twice what PMHNPs were paid (Chapman et al., 2018). In one of the counties, where both PMHNPs and psychiatrists were contract employees, PMHNPs did not receive the bonuses for productivity and provision of bilingual services that were paid to psychiatrists. The requirement in state law that NPs must be “supervised” by MDs helps to justify these major inequities in pay, despite similar job duties.

Comparison of scope of practice regulation effects in five states

Our interest in the impact of the state regulatory environment on PMHNP practice led us to expand our research on this issue with a subsequent qualitative comparative case study examining this phenomenon in five additional states (Chapman et al., 2019). The states were chosen to represent variation in levels of NP practice autonomy, size, geographic location, and degrees of urbanization. Using the *American Academy of Nurse Practitioners (2018)* categorization of NP practice autonomy, we selected two states with full practice authority (Oregon and Colorado), one state with reduced practice (Illinois) and two states with restricted practice (Massachusetts and North Carolina).

We used snowball sampling to identify key informants in each state (total 94). These included nursing regulators, leaders in behavioral health agencies that employed PMHNPs, PMHNP educators and practitioners, and collaborating psychiatrists in states where this was required. PMHCNSs were included in states where they have prescriptive authority. Sources of data included semi-structured interviews from in-person site visits and review of documents about the legal and regulatory environment in each state. Thematic analysis was used to code and analyze informant interviews (Chapman et al., 2019).

We found that the maxim “all politics is local” applies equally to regulation. In each state, we learned that the regulatory environment for APRNs, and PMH-APRNs specifically, was shaped by professional lobbying initiatives and compromises between stakeholder groups. These include state medical associations, nursing organizations, and government agencies such as the Federal Trade Commission, which has issued a number of staff comments that support removing restrictions on APRN practice in various state statutes and regulations. After a brief discussion of the unique features of each state’s regulatory environment, we will discuss some of the significant themes that cross state settings.

Oregon

Of the states we visited, Oregon has the strongest support for APRN autonomy. APRNs were granted independent practice in the 1970s and have had prescriptive authority since 1979. Authority to prescribe Schedule II drugs was added in 1995. At present, rather than requiring legislative approval for expansion of APRN practice when new procedures are developed, “The Board [of Nursing] decides what NPs can do unless it’s forbidden by the state” (Oregon Board of Nursing, personal

communication, February 13, 2017). In 2013, a law that requires payment parity for primary care and mental health services provided by APRNs was passed with the support of the Oregon Nurses Association. Insurers including Medicare and commercial carriers are required to reimburse APRNs at the same rate as MDs providing the same services (Oregon Board of Nursing, personal communication, February 13, 2017).

Full practice authority and payment parity have created a favorable environment for individual and PMHNP-led group practices, and we interviewed PMHNPs in several such group practices. These were based on a nursing model of care and received income from a number of payer sources, including private pay, insurance, and contracts to provide behavioral health services in schools, forensic settings and services funded by Medicaid. A number of informants indicated that their decision to work in private practice instead of a behavioral health agency was influenced by the significant discrepancies between PMHNP and psychiatrist salaries in these agencies, despite similar job duties, and employer restrictions on their practice that are not required by state law. A consequence of the reduced numbers and high turnover of PMHNPs working in mental health agencies has been a reduction in clinical training sites for the state’s only PMHNP program, and resulting inability to expand enrollment in this program despite applicant interest and PMHNP shortages across the state.

Colorado

The state’s requirement for physician collaboration was eliminated and APRNs gained full practice authority in 2015. This change in scope of practice legislation received support from a nurse-physician advisory task force on health care appointed by the governor, as well as by the Colorado Nurses Association, with the goal of increasing access to care (Colorado Board of Nursing, personal communication, June 9, 2017). In the process of legislative compromise, requirements were included in the final legislation that APRNs have 1000 h of supervised prescriptive practice (may be supervised by a physician or an APRN with full prescriptive authority) and an “Articulated Plan for Full Prescriptive Authority” before receiving independent prescribing privileges (RXN license). The Articulated Plan must include plans for consultation and referral, quality assurance, and ongoing education in pharmacology; and decision support tools for safe prescribing (Colorado Board of Nursing, n.d.). Sample plan templates are available on the Colorado BON website. Articulated Plans need not be submitted to the Board, but must be available for review if requested.

Some informants felt that the requirement for 1000 h of supervised prescribing practice before receiving the RXN license was a barrier to employment for new graduates, particularly in areas of provider shortage. Most of the APRNs we interviewed were unclear on what information was required in the Articulated Plan or felt that it was unnecessary paperwork that did not facilitate collaboration in practice.

We also became aware that not all restrictions to PMH-APRN practice resulted from nursing regulation. The most common concern about regulatory restriction we heard from PMH-APRNs and agency leaders was in Colorado’s behavioral health statutes. Although PMH-APRNs could place holds for involuntary mental health treatment, state behavioral health regulations did not include APRNs in the list of professional persons who could release such holds. For PMH-APRNs working in acute or emergency psychiatric settings, this significantly impinged on their ability to fulfill job duties.

Illinois

In January 2018, legislation was passed in Illinois that removed the requirement for APRNs to maintain a career-long written collaborative agreement with a physician. The new law specifies that APRNs will no longer require such an agreement after they complete 250 h of continuing education and 4000 h of supervised clinical experience. However, in the process of negotiation over the bill, a requirement was added that APRNs must document a consultation relationship with a

physician in order to prescribe benzodiazepines or Schedule II narcotics (AANP, 2017). This was previously not required for APRNs who were credentialed and privileged by a health care institution, and thus introduced a new restriction. The regulations to implement this law had not yet been released during our visit, so our informants could not provide specific details of how the changes would affect their practice. Because of the continued requirement for supervision in prescribing controlled substances, Illinois is still categorized as a reduced practice state despite the recent expansion of practice (AANP, 2018).

Massachusetts

Massachusetts is considered a restricted state (AANP, 2018) since all APRNs except for certified nurse midwives (CNM) require an agreement with a supervising physician (term used in regulations) to prescribe. PMH-CNSs have prescriptive authority, but are the only CNS group in the state that does. Regulations specify that the supervising physician for a PMH-CNS must be a psychiatrist, but for other APRNs the regulations specify only that the MD collaborator must be “practicing in the same field.”

In 2014, the Massachusetts Board of Nursing (BON) conducted a review of its regulations to determine if there were regulatory restrictions on APRN practice not required by statute that could safely be removed. Before this, there had been no comprehensive review of APRN regulations since 1994. As a result of this review, the BON eliminated regulatory requirements for physician supervision of all other aspects of APRN practice and clarified that MD collaboration was required for prescriptive authority only (personal communication, Massachusetts Board of Nursing, September 9, 2017). Although collaborative practice requirements allow some latitude for negotiating circumstances of consultation, regulations specify that new controlled substance prescriptions must be reviewed by the supervising MD within 96 h.

At the time of our visit, several pieces of legislation were under consideration to allow APRNs full scope of practice. Following the success of CNMs in obtaining full practice authority as a single APRN group, an organization for PMH-APRNs was sponsoring a bill to gain independent practice for PMH-CNSs. Massachusetts has the highest number and per capita ratio of PMH-APRNs of any state we visited and the majority of these were PMH-CNSs (Chapman et al., 2019). The PMH-APRN organization was well-organized and politically savvy, and had determined that obtaining full practice authority specifically for the PMH-CNS group might encounter less political opposition than a broader initiative addressing all APRN groups.

North Carolina

North Carolina's APRN practice environment was overall the most restrictive of the states we visited. NPs must have a written collaborative practice agreement with a supervising physician (term used in regulations), and are jointly regulated by the BON and the state medical board. PMH-CNSs are not eligible for prescriptive authority, though they are not required to have a supervising physician in order to practice. In 2017, efforts to update the Nurse Practice Act to reduce restrictions on APRN practice were unsuccessful.

The Joint Subcommittee of the Board of Nursing and Medical Board does not mandate a specific format for collaborative practice agreements, but does specify that NPs and their supervising physicians must have scheduled meetings once a month for the first six months of their collaboration and every six months thereafter. After any change in supervising physician, scheduled meetings must occur monthly for six months. This requires a significant investment of time for both NPs and MDs in situations where high physician turnover necessitates frequent changes of supervising physician.

North Carolina's medical culture and health care facilities appeared to contribute to restrictions on PMHNP practice above and beyond what was specified by law and regulation, including measures that could reduce productivity. One informant reported, “Per [health system] bylaws, all NP notes have to be co-signed. The physicians hate it—they

Table 1
Qualitative Research Themes.

- Variability in PMH-APRN regulation across states ^a
- Confusion about NP roles and scope of practice among administrators and other health professionals ^b
- Similarity in PMHNP and psychiatrist job duties ^b
- Inequities in pay related to supervision requirements ^c
- Experience of mandated physician supervision ^a
 - Support for new practitioners
 - Costs of supervision to APRN or health system
 - Difficulty finding an appropriate collaborating psychiatrist
 - Variability in frequency of supervision
 - Physician concerns about liability for PMH-APRN practice
 - Financially exploitative physician supervision fees

^a Chapman et al. (2019).

^b Phoenix et al. (2016).

^c Chapman et al. (2018).

can't keep up with reading all the notes.” Overt financial exploitation was also more apparent as a motivation for physicians to oppose full practice authority. We received reports of PMHNPs paying \$1500–3000 per month out of pocket for MD supervision. A large psychiatrist group noted on their website, “Because North Carolina's supervision rules are modest, money earned from supervising good, experienced nurses or PAs is almost passive income for the doctor. Psychiatrists earn from \$10,000.00 to \$15,000.00 per nurse, so a doctor supervising four full-time nurses would earn up to \$60,000.00 per year in extra income” (Carolina Partners, 2017).

Common themes in our research

Themes that were present across all six states in this research included confusion about regulatory requirements and mixed experiences of required physician supervision, which will be discussed in more detail below. **Table 1:** Qualitative Research Themes contains a summary of significant findings across studies.

Confusion about regulations

In Oregon, where full practice authority is well-established and APRN regulation includes 100% of the elements recommended in the National Council of State Boards of Nursing APRN Consensus Model (NCSBN, 2019), the regulatory framework for APRN practice seems to be well understood across stakeholder groups. The other five states were all ranked as meeting 50–71% of the NCSBN's recommended elements. Due to the idiosyncratic nature of legislative compromise, these states' nurse practice acts include unique limitations, such as Illinois' requirement that APRNs be supervised for prescription of benzodiazepines and opioids only, or state-specific terminology whose meaning is not self-evident. Examples of this are Colorado's requirement for an “Articulated Plan” and California's use of the terms “furnishing” to denote prescriptive authority and “standardized procedures” to describe a collaborative practice agreement.

In California, primary care NP roles are well-established but the availability and utilization of PMHNPs is comparatively recent. Outdated statutory language describing nurse practitioner practice, as well as the failure of California BRN publications to address psychiatric mental health and acute care advanced nursing practice, has created a situation where behavioral health agencies have difficulty determining how NP regulations apply to PMHNPs. In addition, the position descriptions, job posting language, and salary scales used by county systems are often oriented toward primary care NPs. In county civil service systems, these can be very difficult to revise and the process is often quite lengthy. Several counties reported difficulty recruiting PMHNPs, which likely resulted from lack of knowledge about where to advertise and standard NP job announcement language that did not describe typical PMHNP job duties.

Lack of clarity about state-specific APRN regulatory requirements is

becoming an increasing concern not just for APRNs and their employers within a state, but for educators, payers, regulators, employers and APRNs who practice in multiple states. One informant, who teaches in an online PMHNP program with students in multiple states, requires her students to research information on their state's NP regulatory framework and present this to their classmates to help the students understand the variety of regulatory environments in which they might function throughout the course of their careers. Few interviewees reported engagement in tele-mental health services, citing the complexities of inconsistent regulations across states.

Experiences of physician supervision

Although our informants reported a number of concerns about issues related to mandated physician supervision that are discussed below, not all PMH-APRN informants had negative experiences. A new graduate in Massachusetts noted that she felt protected by having an identified supervising MD who was required to answer her questions, since she believed it would be difficult to obtain consultation with an experienced provider in her agency otherwise. Several experienced PMH-APRNs reported that their supervising psychiatrist of record had agreed to take on this responsibility as a form of collegial support, and did not require payment. We also interviewed a psychiatrist in Massachusetts who participated in a supervision group with several experienced PMH-CNSs. He was their collaborating physician for prescribing issues, and consulted them on issues related to psychosocial assessment and psychotherapy.

More commonly, however, PMH-APRNs reported difficulties related to mandated supervision. Even those who currently had supportive relationships with their supervising MDs expressed concerns about finding a similarly collegial arrangement when their physician collaborator retired or if either party changed jobs. Informants reported issues around finding a supervising physician, cost of supervision, and availability of the supervising MD when needed. One informant described damage to her own professional reputation when her supervising physician faced allegations of misconduct, despite the fact that the PMH-APRN was not involved in the sanctioned activities.

Anticompetitive disadvantages of restricted APRN scope of practice

To expand our examination of the impact of regulatory environments on PMH-APRN practice, we integrate our findings with other published literature on APRN scope of practice using the analysis of competitive harms from APRN physician supervision requirements advanced by the Federal Trade Commission (FTC, 2014) as a framework. The FTC argues that supervision requirements may produce these harms: 1) exacerbate well-documented provider shortages; 2) increase health care costs and prices; and 3) constrain innovation in health care delivery models. In addition, the FTC argues that mandated collaboration agreements are not needed to achieve the benefits of MD-APRN coordination of care.

Restrictive physician supervision requirements exacerbate provider shortages that could be mitigated via expanded APRN practice

Since there are currently over 5000 Mental Health Care Professional Shortage Areas with a population of over 115 million (Kaiser Family Foundation, 2018), an expansion of the PMH-APRN workforce is desperately needed to meet our nation's urgent behavioral health needs. Previous studies indicate an expansion of the overall NP workforce in states with full practice authority, greater provision of care by NPs, and expansion of health care utilization, particularly by rural and vulnerable patient populations (Xue et al., 2016). A cost analysis of the effects of liberalizing restrictive scope of practice laws projects an increase in employment and distribution of NPs, with consequent decreases in health care costs (Hooker & Muchow, 2015). A recent study of how

state scope of practice restrictions affect NP participation in medication-assisted treatment for opioid use disorder demonstrated a significantly higher percentage of NPs with MAT waivers in states with less restrictive practice (Spetz et al., 2019).

Qualitative data from PMH-APRNs is congruent with the conclusions of these studies of the primary care NP workforce. An experienced PMH-CNS with a therapy practice in a rural area of Massachusetts said, "I would have definitely prescribed if I did not have to have a supervising MD." This PMH-APRN was reluctant to take on prescriptive practice since she did not have confidence in the skills or treatment philosophy of the few psychiatrists in the area. A behavioral health medical director in rural North Carolina expressed great difficulty in recruiting PMHNPs, particularly from other states: "They tell me, 'I don't want to work in a state without autonomous practice'."

Unnecessary facility-level practice limitations that involved both NPs and MDs in time-consuming activities, such as frequent supervision meetings or MD co-signatures on PMHNPs' notes, were reported more frequently in states with restricted practice. These activities reduce time spent on patient care and increase administrative costs.

We were also informed of disruptions in patient care in rural agencies that had difficulty retaining psychiatrists. For example, when a psychiatrist in a rural behavioral health agency in North Carolina who supervised multiple PMHNPs left the agency, PMHNPs were unable to provide a full range of services until another psychiatrist was hired.

Excessive supervision requirements increase health care costs and prices

Our information about the costs of physician supervision was limited due to the size of our sample and inability to determine the costs of APRN and MD supervision time for PMH-APRNs employed in large health care organizations. However, we were able to get a sense of prevalent rates in specific communities paid by self-employed PMH-APRNs for MD supervision. This ranged from no charge to more typical rates of \$500–\$1000 per month, though we did hear of PMHNPs paying as high as \$5000 per month for supervision. The amount paid for supervision was not necessarily correlated with the amount or frequency of psychiatrist supervision—since PMH-APRNs in restricted practice states cannot practice without a supervising physician, they often had very little leverage in negotiating or enforcing terms with physician collaborators.

Our findings are congruent with those of a large study focused on collaborative practice agreements conducted by the NCSBN (Martin & Alexander, 2019). They surveyed 8700 APRNs who practice in the 29 states that do not have full practice authority. This study found that, for those APRNs paying fees for a collaborative practice agreement (CPA) out of pocket, the median fee to maintain a CPA was \$500 per month, with monthly rates as high as \$4167 reported. PMH-APRNs and APRNs in rural areas were significantly more likely to pay fees to maintain a CPA, adding to the practice expenses of APRNs serving vulnerable and underserved populations.

The rationale for this wide range of CPA fees is not readily apparent. Although physicians deserve compensation for the time and effort spent in providing consultation, several studies have found that mandated supervision does not always occur. Martin and Alexander (2019) found that only half their study sample met with their supervising MD at least monthly, with about 60% communicating monthly using electronic means. Rudner and Kung's (2017) study of physician supervision of NPs in Florida found that 12% of their sample reported no routine supervision at all, and that the amount of supervision reported was not correlated with the NP's level of experience. One of our psychiatrist informants in North Carolina reported that acting as the supervising physician for a group of PMHNPs put him into a higher risk group and increased his malpractice insurance premiums, which represents a cost to the physician supervisor. We found this surprising since the rate of malpractice payment reports against NPs is only about 10% of those for physicians (Brock et al., 2017).

In addition to the increase in health care costs related to payment of CPA fees to a designated supervising physician, overly prescriptive supervision requirements represent opportunity costs. Time spent on activities such as mandated supervision meetings or routine review and even co-signing of NP charts by the supervising MD represents time that could more productively spent on patient care.

Fixed supervision requirements constrain innovation in health care delivery models

Our interview guide did not specifically ask whether physician supervision requirements inhibited PMH-APRNs from instituting innovations in their practice. However, in Oregon, the state in our study with the greatest level of APRN autonomy, we saw more nurse-run practices that were organized around a holistic nursing-oriented model of care. In addition to medication management, psychotherapy and a Dialectical Behavior Therapy class, the largest of these practices includes a parenting group, education on reproductive health, and a strong emphasis on coordination of care with a range of other health care providers.

Mandated collaboration agreements are unnecessary to achieve the benefits of physician and APRN coordination of care

The most successful PMH-APRN collaborations that were described in our five-state study were those where the parties freely agreed to collaborate, had shared clinical interests, and perceived mutual benefit from their collaboration. The PMHNP-run practice in Oregon maintained a network of community clinicians that they could consult when their expertise in specific areas was needed, and for a time contracted with a psychiatrist for monthly supervision. Other PMHNPs in private practice models arranged monthly peer mentoring sessions that were social, consultative, and educational.

Our findings are congruent with study of physician and nurse practitioner perspectives on required supervision (Kraus & DuBois, 2017). These authors found a high level of agreement between the two professions that NPs recognize when they need to consult and seek out consultation appropriately, and that autonomous practice for NPs would be beneficial. These authors note that the views of physicians who practice with NPs are not congruent with the positions of large medical organizations that oppose APRN full practice authority. This suggests that close physician colleagues could be valuable allies in counteracting political opposition to autonomous practice mounted by medical associations.

Conclusion

The *Future of Nursing* report's (IOM, 2011) recommendation for APRNs to practice to the full extent of their education and training presaged the need for full nursing participation to meet the nation's urgent behavioral health needs. Policies that restrict PMH-APRNs' ability to use their full scope of practice adversely affect our behavioral health care system by exacerbating provider shortages, increasing health care costs, reducing access and discouraging innovation.

The ongoing crises in mental health and substance use disorders and unmet need for services in the US demand a multifaceted approach, including expansion and full utilization of the behavioral health workforce. While access to services has improved somewhat with the Affordable Care Act and parity laws, the workforce supply issue has become even more serious and it is even more crucial now to eliminate obstacles to the efficient utilization of both PMH-APRNs and their psychiatrist colleagues. Optimal use of PMH-APRNs is seen by behavioral health leadership groups (e.g., National Council for Behavioral Health [NCBH], 2017) as one part of the solution to addressing workforce shortages. Indeed, the NCBH Medical Director Institute specifically recommends the removal of barriers in federal and state law that restrict APRNs from providing psychiatric care consistent with their

educational preparation and experience, as well as eliminating regulations that exclude APRNs from the definition of mental health providers (NCBH, 2017).

Marked differences in APRN regulation across states pose particular barriers for PMH-APRNs who have multiple practice sites in metropolitan areas spanning several states with differing scopes of practice. APRN scope of practice restrictions and supervision requirements also impede solutions to enhance access to services in underserved areas through tele-mental health. Given the increasing importance of tele-health to maintain services during the coronavirus pandemic, the patchwork of different state APRN regulations is an unnecessary barrier to effectively matching available providers with those needing services. Noting that, "The expanded mobility of APRNs and the use of advanced communication technologies as part of our nation's health care delivery system require greater coordination and cooperation among states in the areas of APRN licensure and regulation," the National Council of State Boards of Nursing Special Delegate Assembly (2015) has recommended an interstate APRN Compact to facilitate interstate practice by APRNs who meet uniform license requirements.

A recently published study of the administrative, out-of-pocket, and opportunity costs of physician supervision using a subset of NCSBN survey data (Martin & Alexander, 2019) specific to PMH-APRNs documented significant financial impacts. The median fee to establish a collaborative agreement with a physician was \$500 and the median fee to maintain an agreement was \$275 per month, with PMH-APRNs with practices in rural areas being 71% more likely to pay fees for collaborative practice agreements (Martin, Phoenix, & Chapman, 2020). Further data on the full costs of supervision to treatment facilities, clinics, and services would also be helpful in engaging them in the effort to meet the *Future of Nursing* recommendation for full practice authority.

In summary, multiple studies show that APRN practice is safe, effective, and acceptable to patients. There is no evidence to support the need for physician supervision as legislated under the confusing and inconsistent set of regulations across states. Research demonstrates that APRN full practice authority increases access to health care services and helps contain costs. For PMH-APRNs to make their maximum contribution to our nation's behavioral health service needs, we must have a uniform nationwide regulatory framework for APRN practice that includes full practice authority.

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