

# ARE REGULATIONS MORE CONSUMER-FRIENDLY WHEN BOARDS OF NURSING ARE THE SOLE REGULATORS OF NURSE PRACTITIONERS?

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The widely varied regulations in the 50 states often limit consumer access to nurse practitioners (NPs). In 22 states, the Board of Nursing (BON) must share NP regulatory authority with another profession, usually physicians. This study examines the relationship between the BON as the sole authority regulating NPs or sharing that authority with another profession and the NP regulatory environment. Independent *t* tests compared the NP regulatory environments for consumer access and choice in states with sole BON regulation with those in states with involvement of another profession. The states' NP regulatory environments were quantified with an 11-measure tool assessing domains of consumer access to NPs, NP patients' access to service, and NP patients' access to prescription medications. BON-regulated states were less restrictive ( $P < .01$ , effect size 1.02) and supported NP professional autonomy. Entry into practice regulations did not differ in the two groups of states. Having another profession involved in regulation correlates with more restrictions on consumer access to NPs and more restrictions to the full deployment of NPs. (Index words: Nurse practitioner; Regulation; State regulation; Professional autonomy; Oversight; Governance; Consumer access; Consumer choice) *J Prof Nurs* 26:29–34, 2010. © 2010 Elsevier Inc. All rights reserved.

**I**N 28 STATES AND the District of Columbia (DC), nurse practitioners (NPs) are regulated solely by the Board of Nursing (BON). However, in 22 states, the BON shares this responsibility with representatives of the medical profession and/or pharmacists. This study examines if the states where NPs are regulated solely by the BON are more likely to have fewer restrictions on consumer access to NPs compared to states where the BON is required to share this professional regulation responsibility with another profession.

## Background

Nursing has its own professional identity, with its own theoretical and philosophical foundation, research base, and qualifications that are separate and distinct from medicine. NPs are advanced-practice nurses (APNs) with master's or doctoral level degrees earned in programs that meet national nursing accreditation requirements. NPs are nationally certified only after passing a rigorous examination. Recertification requires ongoing clinical practice and continuing education (Stanley, 2005).

Although the profession accredits itself through national criteria, each state determines its own regulations of NPs. The federated system of the United States gives states the authority to regulate the health professions. This has created an unintended and illogical national patchwork of regulation of NPs, with barriers to full deployment of NPs in some states, full utilization of NPs in others, and many shades in between. In spite of national educational accreditation and certification of NPs, states differ dramatically in the requirements for NP

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autonomy, entry into practice, scope of practice, and prescriptive authority. Although the purpose of regulation of health professions regulation is public safety, as potential competitors in the health care marketplace, physicians may have incentives for anticompetitive regulation limiting consumer access to NPs and NPs' professional autonomy (Safriet, 1994).

The regulation of health care professions is based on the premise that consumers do not have adequate information to assess health care provider quality. The state authority to regulate health professions is rooted in the state obligation to protect the public and to promote safety. It is not a constitutional requirement but instead developed from historical tradition (Safriet, 1994). States attempt to protect the public from unprepared practitioners by restricting health care practice to those who have satisfied the state's licensure requirements, defining scopes of practice, and establishing other practice requirements. These regulations are usually codified in the states' medical practice acts and nursing practice acts.

### History

Physician dominance in health care stems from the origins of licensure and medical practice acts. Physicians were the first profession to develop and codify health care practitioner licensure. In 1760, New York City became the first American jurisdiction to prohibit practice by unlicensed physicians. By the early 1900s, every state had enacted a medical practice act, broadly defining the practice of medicine with all-encompassing language touching all aspects of the human condition (Safriet, 1994, 2002; Starr, 1982).

Nursing regulation, through licensure and nurse practice acts, followed on the heels of the regulation of physicians. Because medical authority was consolidated between 1850 and 1930, nursing and all other health professions had to fit around the broad scope of practice that medicine had carved out for itself (Safriet, 1994, 2002; Starr, 1982). Through the 1930s and 1950s, mandatory state license laws were developed that defined nursing in narrow terms with only the functions of observation, completing tasks, and maintaining record-keeping as independent nursing functions and most other functions as delegated from the physician. For example, taking a blood pressure was not a function of nursing; it was a function of medicine.

Over the years, the role of the nurse has expanded significantly. The role of the advanced-practice nurse further expanded nursing care to meet the health care needs of the pediatric population. The NP role developed by Loretta Ford at the University of Colorado College of Nursing and Henry Silver, a physician, was not based on a classic medical model but instead was a holistic, wellness-oriented, well child care, health promotion, and disease prevention model (Stanley, 2005). As Dr. Ford described, "the movement thrived because the foundation of the nurse practitioner was deeply rooted in the enduring values and goals of professional nursing" (Ford, 1991). Nonetheless, in the 1960s, with the

development of the NP role, advanced-practice nursing was usually interpreted as a function delegated by the supervising physician.

Since the 1960s, many states have revised their nurse practice acts to recognize the advanced-practice nurse as an independent nursing role. Wing, O'Grady, and Langelier (2005) examined NP regulatory environments in 1992 and 2000; their study found state regulations for NP scope and autonomy had expanded significantly during that period, but that NP scope and autonomy varied widely among the states. This variability was found to persist in two 2007 studies (Christian, Dower, & O'Neil, 2007; Rudner Lugo, O'Grady, Hodnicki, & Hanson, 2007).

### Methodology

Each state's NP regulatory information was evaluated with a scoring tool reflecting components of NP regulations affecting patient access to care. The tool builds on previous studies of NP regulations (Rudner Lugo et al., 2007; Sekscenski et al., 1994; Wing et al., 2005). Data were obtained from the 2007 Pearson Report's summary descriptions of the nursing practice acts and practice environments of each of the 50 states and DC, compiled Spring 2006 (Pearson, 2007). Data were complete for all measures for all states and the DC.

The hypothesis tested was that when another potentially competing profession is involved in regulating NPs, consumer choice and access to NPs are more limited and the NP regulatory environment more restrictive than when NPs are regulated without the involvement of external professions.

#### Measure of BON Role in NP Regulation

For the purposes of this study, *sole* BON regulatory authority was defined as statute having no other health care profession involved in developing rules, regulations, or authority for NPs. The Pearson Report asks, separately, (a) if the BON is the sole state authority over NPs, (b) if there is joint BON and Board of Medicine (BOM) or Board of Medical Examiners (BME) regulation over any aspect of practice, and (c) if NP prescribing authority is granted separately from practice authority with the involvement of another profession (Pearson, 2007). Based on the responses to these questions, for this study, the BON was considered the sole authority only if no other health professions were involved in regulation of any aspect of NP practice. The measure of the BON being the sole authority over NPs was dichotomous (yes/no). In states where the BON is not the sole regulator of NPs, the regulatory relationships were identified (Table 1).

In 22 states, the BON shares NP regulatory authority with another profession. In 13 of these states, oversight of all or a component of NP licensing is jointly shared by the BON and the BOM. For example, in New Jersey and Hawaii, the BON and BOM jointly oversee prescription privileges of NPs. In Nevada, the BON must share this responsibility with the Board of Pharmacy (BOP). In Minnesota, standards for collaborative agreements are

**Table 1.** Regulatory Oversight in States Where the BON is Not the Sole Regulator of NPs

State	NP Regulatory Oversight
Alabama	Joint committee of BON and BME has the authority to recommend to the BON and BME rules and regulations governing the collaborative relationship between physicians and NPs, model practice protocols to be used by NPs, and a formulary of legend drugs the NPs may prescribe.
Arkansas	Prescriptive authority committee of 3 NPs, 1 MD, 1 pharmacist advised the BON regarding implementing prescriptive authority.
Delaware	NPs are regulated by joint practice committee of 1 consumer, 5 NPs appointed by BON, 1 pharmacist, and 2 physicians appointed by BOM.
Florida	Joint BON, BOM control over NP protocols.
Georgia	BME promulgates rules and regulations for NP protocol agreements.
Hawaii	Prescriptive authority regulated by BON/BOM.
Idaho	Advisory committee to the BON addresses NP issues. Committee consists of 2 NPs appointed by BON, 2 physicians appointed by BOM, and 1 pharmacist appointed by BOP; BON cannot expand scope of practice or prescriptive authority of an NP beyond that recommended by the committee.
Illinois	Illinois Department of Financial and Professional Regulations can overrule the APN advisory board, with consists of 9 governor appointees: 4 NPs, 3 physicians, and 2 members of the public.
Indiana	BOM approves prescribing rules.
Maryland	BON and Board of Physician Quality Assurance control NP practice and appoint equal number of members to joint committee on NPs.
Massachusetts	BON and BOM approve NP regulations.
Minnesota	For prescribing scope of practice, NPs must have a collaborative agreement w a physician in accordance with standards established by the Minnesota Nurses Association and Minnesota Medical Association.
Mississippi	Rules and regulations promulgated jointly by BON and BOM.
Missouri	Rules and regulations promulgated jointly by BON and BOM.
Nebraska	Department of Health and Human Services Regulation and Licensure governs NPs, with advisement from APN board, which is separate from BON. The composition of the APN board is 5 APNs, 5 physicians (3 must have a practice agreement with an APN), 1 pharmacist, and 3 consumers/public members.
Nevada	Prescribing authority granted by BOP and BON.
New Jersey	Joint protocol required for prescribing is developed by BON with BOM and must conform to standards established by Director of the Division of Consumer Affairs.
North Carolina	Joint subcommittee of BON and BOM.
South Carolina	Joint subcommittee of BON and BOM.
South Dakota	Joint subcommittee of BON and BOM.
Tennessee	Joint subcommittee of BON and BOM.
Virginia	Joint subcommittee of BON and BOM.

APRN = advance practice nurses.

established jointly not by the BON but by the state nursing association and the state medical society. Several states have some form of a committee overseeing NP practice. In Delaware and Arkansas, NPs comprise a majority on the APN oversight committees. In Idaho, an advisory committee of two NPs, two physicians, and one pharmacist determines NP regulations; the BON cannot exceed the parameters established by this “advisory” committee (Table 1).

### Measures of State Regulatory Environment

The study tool reflected the extent that state regulations allow consumer access to NP care (Table 2). Each of the three dimensions and the 11 measures was weighted by the researchers, based on literature and practice, proportionate to its importance in ensuring consumer access to NP care and related services: (a) access to NPs (20 points), (b) access to NP care and related health services (40 points), and (c) access to prescription medications (30 points). Possible responses for each measure were given 0–4 points, with higher points

indicating unrestricted patient access to NPs. The researchers scored each state on each of the measures individually, then in pairs, and then collectively, discussing variance in scoring until concordance was achieved. Higher scores indicate less restrictive environments for NP practice and greater consumer choice.

### Analysis

An independent two-tailed *t* test was used to assess the difference in scores for states where the BON is sole regulator of NPs compared to states where the BON shares that responsibility with another profession. The differences in the states' composite scores, each of the three dimensions, and the individual measures are shown in Table 2.

### Findings

The relationship between BON sole authority and the composite score reflecting less restrictive NP regulations was statistically significant. The BON-governing states had an average overall score of 71 of 90; the states where

**Table 2.** NP and Consumer Choice Regulatory Environments in States Where BON is Sole Regulator of NPs Compared to States Where Other Health Professions are Involved in NP Regulation

Domains and Measures	Maximum	Average in States with BON Sole NP Regulator	Average in States With Another Profession Involved	P*	Effect Size
Regulations enabling patients' access to NPs	20	13.65	10.30	.00	0.84
Entry into practice: requirements to enter into NP practice facilitate availability of safe, professionally qualified NPs	10	5.98	5.30	.33	0.38
Professional autonomy: the scope of practice is congruent with education and professional ability, unencumbered by another profession	10	7.7	5.0	.00	1.16
Regulations enabling NP patients' access to services	40	33.4	27.73	.00	0.93
Onerous requirements: no burdensome, costly oversight requirements (e.g., onsite supervision, practice agreements, limiting protocols)	10	6.78	4.09	.00	0.89
Tests and physical therapy: regulations do not encumber lab, diagnostic testing, and physical therapy for NPs' patients	9	8.83	7.16	.04	0.62
Hospital privileges: state has no prohibition of NPs' hospital privileges	7	3.66	3.91	.24	-0.33
Primary care provider: state authorizes NPs to be primary care providers	7	5.79	4.61	.06	0.52
Reimbursement: legislative language permits NP reimbursement by third party	10	8.79	7.95	.34	0.27
Regulations enabling NPs' patients' access to prescriptions	20	24.24	19.23	.00	0.85
Prescriptive authority: NP prescribing within scope of expertise unencumbered by other professions	8	4.51	2.91	.00	0.79
Prescribing: NP can prescribe legend and controlled medications to patients	10	9.51	7.73	.03	0.68
Name on bottle: patients' medication bottle required to have NP name	7	6.40	5.41	.16	0.42
Samples: NPs authorized to receive and dispense pharmaceutical samples	5	3.79	3.18	.13	0.43
Total state score	90	70.92	58.31	.00	1.02

\* Independent two-tailed *t* tests comparing scores in states where the BON has sole authority over NPs compared with states where other professions are involved in regulating NP practice.

the BON shares NP governance with other professions had an average score of 58 ( $P < .01$ ), an effect size of 1.02. The least restrictive states are more likely to have sole BON governance; the most restrictive states were more likely to have a profession external to nursing involved in NP regulation. However, 3 of the 10 states with the most restrictive NP regulatory environments (Michigan, Louisiana, and Oklahoma) have sole BON regulation. One of the 10 states with the least restrictive environments, Utah, has shared governance of NPs.

The scores for each of the three domains were significantly higher in the BON-only states ( $P < .01$ ; Table 2). The BON-governing states had higher (less restrictive) scores in the individual measures that are most central to independent NP practice: professional autonomy ( $P < .01$ ); absence of burdensome oversight requirements such as frequent on-site physician presence ( $P < .01$ ); the ability to order laboratory tests, diagnostic studies, or physical therapy ( $P < .05$ ); prescribing autonomy ( $P < .01$ ); and full prescribing privileges ( $P < .05$ ). Professional autonomy had the

largest effect size (1.16). Although the differences in the overall state scores and domain scores were statistically significant, some measures did not differ significantly in the two groups of states. There was no significant difference between the BON-governing states and the states with shared authority for the measure of entry into practice ( $P = .33$ ), and for the measures with less variability among the states: hospital privileges ( $P = .24$ ), reimbursement ( $P = .34$ ), having the NP name on the prescription bottle ( $P = .16$ ), and NP authority to receive and dispense samples ( $P = .13$ ; Table 2).

The lack of a difference in requirements for an NP to be licensed to practice as an NP (the entry into care regulations) indicates that the levels of restriction on the supply of NPs are the same in both groups of states, but the states with physician involvement in NP regulation are more likely to limit NP independence. For example, cumbersome physician oversight requirements, limits on ordering tests, and/or prescribing restrictions were more common in states where another profession was involved in NP regulation.

## Limitations

The high degree of variation in NP regulation among the states, interpretations in interpretation of nurse practice acts and regulations, and the use of secondary data could result in some variability in the scoring. Although the lack of laser precision must be recognized, state scores give general indications of the health of the NP regulatory environment across states and DC. Furthermore, although a regulatory structure may be in place for BON to share NP governance with another profession, there may be major differences in these dynamics influence regulation in different states, dependent, in part, on the individuals involved in the regulatory agencies. In addition, it must be stressed that the statistically significant relationship between BON sole regulation and the NP regulatory environment shows correlation but does not indicate causation. One possibility is that states that write less restrictive NP regulations are also more likely to give BON sole authority over the profession. The correlation may be a reflection of the overall political culture and environment. One must consider the findings within the historical context of health, nursing, medical care, workforce, politics, and the increasingly competitive health care marketplace.

## Discussion and Implications

More than 10 years ago, the Pew Health Professions Commission Report, *Reforming Health Care Workforce Regulations: Policy Considerations for the 21<sup>st</sup> Century*, identified concerns that regulation of professional health care practices decreases access to health care more than it protects it (Finocchio, Dower, McMahon, Gragnola, & the Taskforce on Health Care Workforce Regulation, 1995). Regulatory limits on practice domains often serve professional interests. The Pew Report refers to “inter-professional legislative battles... (that) do not achieve the broad flexibility needed to improve access and lower costs while maintaining or improving quality.... A regulatory system that maintains its priority of quality care, while eliminating irrational monopolies and restrictive scopes of practice would not only allow practitioners to offer the health services they are competent to deliver, but would be more flexible, efficient, and effective” (Finocchio et al., 1995). With increased competition in the health care marketplace, the key points of the Pew Commission report are as current as ever.

Regulations that create barriers for patients “serve no useful purpose and contribute to our health care problems by preventing the full deployment of competent and cost effective providers who can meet the needs of a substantial number of consumers” (Safriet, 1994). The 10 recommendations in the Pew Health Professions Commission Report included “Eliminate exclusive scopes of practice which unnecessarily restrict other professions from providing competent, effective and accessible care. States should ensure that the training, testing and regulating of health professionals allow different professions to provide the same services when competence—

based on knowledge, training, experience and skills—has been demonstrated” (Finocchio et al., 1995).

More than a decade later, consumer access to NPs is still restricted, impeding the full deployment of NPs. A 2007 study by the California Healthcare Foundation concludes that “preventing professionals such as NPs from practicing to the full extent of their competence negatively affects health care costs, access, and quality” (Christian et al., 2007). A 2003 study found both rural and urban physicians recognized that NPs possess the necessary skills and knowledge to provide primary care to patients. These physicians also recognized that NPs are an asset to their practice and can increase revenue for the practice (Burgess et al., 2003). This may explain the ease of “entry into practice” in both groups of states in the study. Physicians may recognize the benefit to their practice revenue of having a labor supply of NPs when NPs can enter into practice with fewer barriers beyond those established by the nursing profession. A 2007 joint resolution by the American Medical Association (AMA) and the American Academy of Family Physicians calls for BOM regulation over NPs, claiming that regulation separate from the BOM “creates inappropriate advantages for NPs.” The same resolution includes a previous AMA resolution calling for physician supervision of all NPs (American Medical Association/American Association of Family Physician Joint Resolution, 2008). The California Healthcare Foundation study of NPs identifies that “constituencies that oppose expanded NP scores of practice also may be motivated by competitive self-interest. NPs can be viewed as threats to market share, prompting opponents to block legislation that would recognize overlapping scopes of practice among the professions” (Christian et al., 2007).

It is not in the interests of public safety and consumers to have the economic and professional interests external to nursing dictate the rules and regulations for NP practice and consumer access to NPs and related services. For example, in some states, NPs cannot prescribe physical therapy or certain diagnostic tests; the NP patient must have those ordered by a physician, adding another layer of cost and barriers, without a demonstrated safety benefit. Other states require that when a patient's condition has changed and adjustments are made to the treatment plan (for example, diabetes management), the patient must be seen by a physician within 7 days. One can imagine how many patients may forgo the hassle of the return visit and forgo needed treatment. Fifteen states do not require that the prescribing NPs name be on the medication bottle, adding to prescription confusion and safety risks. Some states require frequent on-site supervision of NPs by physicians, adding to the cost of business and limiting full deployment of NPs to underserved areas. Some states have limited list of medications an NP can prescribe, limiting treatment options for NP patients. Some states limit NP prescribing or dispensing to only 3 to 7 days of treatment, a practice which can lead to undertreatment and antibiotic resistance for patients who do not obtain medication to continue the course of therapy.

When the BOM has some degree of regulatory control over nursing, one profession has veto power over the rules and regulations of its competitors. The first draft of the NCSBN Vision Paper for Advance Practice Nurses (2006) calls for sole BON regulation. "Regulation by the State BON is the most appropriate design for NP management. Control of various aspects of practice by Boards of Medicine or Boards of Pharmacy ...inserts the interests of other professions into the practice arena. Self-regulation is the goal of most professions" (National Council of State Boards of Nursing, 2006). The involvement of medicine or pharmacy dilutes the interests of patients by inserting perverse economic priorities of competing professions in place of ensuring patient safety.

Further research may be able to identify in more detail characteristics and factors contributing to the relationships between NP regulatory authority, NP regulations, and consumer access. The AMA has identified having physicians involved in NP regulation as one of their policy strategies; the research presented here suggests that such oversight may not serve the public protection function of regulation and may limit consumer access. BON and the nursing profession will need a committed focus to achieve in some states and maintain in others professional autonomy for advance practice nurses.

## Conclusion

Regulations facilitating consumer access to NPs and related services are more prevalent in states where the BON is the sole authority regulating NPs. In these states, regulations facilitate consumer access to NPs and are less likely to impede access to related services and medications for patients of NPs. Having another profession involved in regulation correlates with more restrictions on consumer access to NPs, more cumbersome and costly oversight, and the underutilization of NPs, hampering opportunities to improve access, choice, cost, and quality.

The nation struggles with the inefficiencies in the current health care system and the rising numbers of uninsured and underinsured individuals. NPs could be a part of the solution to increasing health care access, yet continued interference by medicine may create more barriers to providing full access to those in most need. The need for nursing advocacy for professional autonomy should not be underestimated.

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