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Impact of Legislation on Scope of Practice Among Nurse Anesthetists

Jennifer E. Greenwood, PhD, CRNA, and Chuck Biddle, PhD, CRNA

ABSTRACT

Certified registered nurse anesthetists (CRNAs) are vital in delivering anesthesia services. Despite rigorous training and proven quality outcome metrics, their scope of practice (SOP) is often limited. Using a national sample of CRNAs (N = 1,202), we investigated the impact of locale and the absence of physician supervision on SOP. CRNAs practicing in rural locations had higher SOP scores; those in states opting out of physician supervision had higher SOP scores. CRNAs who experienced a change in practice after opt-out legislation had the highest SOP of all groups (all $P < .001$). Restrictions in excess of state laws negatively impacted SOP.

Keywords: certified registered nurse anesthetist, geography, nurse anesthesia, opt out, scope of practice, visual analog scale

Given the implementation of the Affordable Care Act (ACA) and its goals to increase access to care while maintaining high-quality standards, the role of advanced practice nurses (APNs) has received significant publicity. In 2010, the Institute of Medicine (IOM) published the results of a multidisciplinary panel regarding the future of nursing. One of the primary findings of the report was that nurses should practice to the fullest extent of their education and training. When reviewing practice patterns, the panel convened by the IOM found that the tasks nurse anesthetists and all APN specialties are allowed to perform are often determined by hospital bylaws, credentialing committees, and unique state laws rather than by the education and training of the provider.[1] Health care policy scholars and advisors make the case that successful implementation of the ACA will be impeded by outdated laws that mandate scope of practice (SOP) and have little correlation with the competence and training of the providers they regulate.[2]

To ensure continued access to high-quality care, it is critical that unnecessary barriers to practice and restrictions on SOP are removed for APNs. The IOM recommended that states update and standardize their SOP regulations to take advantage of the full capacity and education that APNs offer. The findings of the IOM committee were the culmination of an exhaustive review of the literature regarding patient care from all disciplines in which APNs provide care, which found that the same level of quality and patient outcomes was maintained across disciplines.[1]

Echoing the findings of the IOM report, the *New England Journal of Medicine* published an article by a group of nurse executives, including the former Secretary of the Department of Health and Human Services, advocating for broadening SOP of APNs.[3] They argued that the degree of variation in SOP regulations does not appear to be correlated with any measure of quality or safety. For example, there are no data to suggest that APNs in states that impose highly restrictive SOP regulations give better or safer care than those APNs in liberal SOP states. The authors pointed out that using nurse practitioners in primary care clinics has dramatically eased the burden for chronic disease management while potentially saving states, such as Massachusetts, $4.2 to $8.4 billion over the next 10 years.

As individuals respond to the insurance mandate provided in the ACA, a surge of newly covered individuals is predicted to add further stress to the health care system's ability to meet the demand for services. Additionally, geographic disparities exist because providers tend to concentrate in urban and suburban areas, leaving rural counties vastly

underserved across the country. A nationwide increase in demand and the corresponding need for a reduction in the overall cost may necessitate an increase in the use of nonphysician providers to efficiently meet the needs of patients. The role of certified registered nurse anesthetists (CRNAs) in meeting the demand for anesthesia services has been studied here to determine the influence of location of practice and legislative inputs on SOP.

DEFINING SOP

SOP generally refers to the legal parameters within which a provider is expected to practice. The legal authorization to practice as a CRNA is almost universally found in the individual states' regulations set forth by their respective board of nursing and/or Nurse Practice Acts.[4] Although SOP and prescriptive authority are specifically defined within these legislative documents, other regulations such as insurance mandates, Centers for Medicare and Medicaid Services policies, and hospital bylaws greatly affect reimbursement and actual anesthesia practice. Individual hospitals are charged with determining credentialing limitations within their facility through the bylaws and approval of the medical staff boards.[5] Despite federal and state laws regarding SOP, individual group practices and hospitals often decide how to interpret those laws, which frequently leads to a reduction on SOP despite more liberal legislative rules.

SOP is a multidimensional phenomenon that is difficult to measure directly or assign to a given anesthesia delivery model (anesthesia care team, supervisory, or independent practice). For example, it refers to the regulatory and statutory limitations on practice; the supervision or collaborative requirements for nurse anesthetists to practice; and the individual's knowledge, skills, and competency related to patient care. The concept of SOP also goes beyond measuring what a provider is clinically allowed to do from a licensing perspective. A subjective component related to professional respect, autonomy, authority, and accountability must also be considered. The concept of an SOP visual analog scale (VAS) was developed because it is ideally suited to determine an individual's SOP within the regulatory confines of their unique practice environment and according to their personal perceptions of the supervisory interactions with the collaborating physicians if applicable. A VAS can be used to quantify a global measure of SOP, which incorporates multiple aspects of practice simultaneously. The SOP-VAS, a novel tool, has been validated for use with practicing CRNAs.[6]

THE ROLE OF CRNAs

Greater than 42,000 nurse anesthetists participate in the delivery of over 32 million anesthetics each year either as a member of an anesthesia care team (in which a single anesthesiologist provides medical direction for up to four CRNAs concurrently), under the supervision of the operating physician, or as an independent provider.[4] CRNAs provide a vital service to patients requiring surgical and obstetric services as well as trauma stabilization across the United States. Additionally, CRNAs are the principal providers of anesthesia care in the military.[7]

The safety and quality of the care provided by nurse anesthetists have been well studied over the years. Most recently, the highly regarded and independent Cochrane Collaboration compiled the available research to assess the effectiveness and safety of different types of anesthesia providers.[8] Based on their review of all the existing literature, the authors found no difference in patient outcomes related to anesthesia based on the type of provider administering the anesthetic. They concluded that, "No definitive statement can be made about the possible superiority of one type of anesthesia care over another." Their review included retrospective data on over 1.5 million surgical encounters.

Nurse anesthetists practice in a variety of capacities, effectively meeting the needs of the members in their communities in collaboration with anesthesiologists and surgical colleagues, but their SOP is often determined by political decisions in the state in which they work rather than by their competence, education and training, or safety record.

GEOGRAPHIC DISTRIBUTION OF ANESTHESIA PROVIDERS

In 2010, the RAND Corporation analyzed the labor markets for anesthesia.[9] They predicted a continuing shortage of anesthesia providers ranging from a 5.2% vacancy rate in the South to a 10% vacancy rate in the