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Impact of nurse practitioners on health outcomes of Medicare and Medicaid patients

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ABSTRACT

Strengthening health care overall is essential to the health of our nation and promoting access to health care as well as controlling health care costs in a quality cost-effective manner. Nurse practitioners have demonstrated to be effective and cost-effective providers in prior research; however, many states restrict their practice. We examined for a statistically significant relationship between the level of advanced practice registered nurse (APRN) practice (full, reduced, or restricted) allowed and results of recent nationwide, state level analyses of Medicare or Medicare-Medicaid beneficiaries of potentially avoidable hospitalizations, readmission rates after inpatient rehabilitation, and nursing home resident hospitalizations and then compared them with state health outcome rankings. States with full practice of nurse practitioners have lower hospitalization rates in all examined groups and improved health outcomes in their communities. Results indicate that obstacles to full scope of APRN practice have the potential to negatively impact our nation's health. Action should be taken to remove barriers to APRN practice.

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Over 2 years have passed since the Institute of Medicine (IOM) released their report on the future of nursing with the number one recommendation to remove scope of practice barriers for advanced practice registered nurses (APRNs; IOM, 2011). In March 2014, the Federal Trade Commission released a policy paper regarding the competition and regulation of APRN practice (Gilman & Koslov, 2014). Within this document, the question of legitimacy of barriers to APRN practice was raised (Gilman & Koslov, 2014). This question is particularly important in the current health care environment where issues of access to cost-effective, quality health care are key.

Further raising the question of barriers to APRN practice are the recent findings that the 2012 state health rankings reported by the United Health Foundation are significantly related to the level of nursing practice (full, reduced, or restricted as defined by the American Association of Nurse Practitioners) allowed in states (Oliver, Pennington, & Revelle, 2014). Three recent studies also ranked state performance of additional health outcomes, specifically those of Medicare or Medicare-Medicaid beneficiaries (Ottenbacher et al., 2014; Segal, Rollins, Hodges, & Roozeboom, 2014; U.S. Department of Health and Human Services [DHHS], 2013). These findings set the stage for additional

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exploration of the effect of APRN practice on this large group of health services users. The purpose of this article was to explore if there is a statistically significant relationship between the level of APRN practice and health outcomes in those Medicare or Medicare-Medicaid beneficiaries (the population of interest in this study). Although there are four different APRN roles (certified nurse midwife, certified registered nurse anesthetist, clinical nurse specialist, and nurse practitioner), the focus is on the nurse practitioner (NP) role because this is the role that has been traditionally prepared to function in primary care settings, including nursing homes, where many Medicare or Medicaid beneficiaries reside. The term APRN and NP are used interchangeably.

Background

The U.S. DHHS develops and continually refines a strategic plan to meet the health care needs of the American people. Within the current strategic plan, there are five overarching goals, with the first goal being strengthening health care overall. Key components of this goal include promoting access to health care as well as controlling the growth of health care costs in a quality cost-effective manner (U.S. DHHS, 2014). In 2012, there were about 49.5 million Medicare beneficiaries (Kaiser Family Foundation, 2014), and they accounted for 21% of the total health care spending in the United States (California Health Care Foundation, 2014). There are current studies underway funded by the Centers for Medicare and Medicaid (CMS) Innovations Center and the Medicare-Medicaid Coordination Office to explore ways to control these costs (Rantz et al., 2013). There is an urgent need to address high costs and improved care outcomes for beneficiaries. According to the U.S. DHHS, the Affordable Care Act will offer an opportunity for those who have been uninsured to access affordable health insurance. This represents approximately 15% of the total American population or approximately 41.3 million lives (U.S. DHHS, 2013). In addition to this population, we have a rapidly aging populace with the baby boomers as well as an obesity epidemic resulting in increasing rates of diabetes (Centers for Disease Control and Prevention, 2013). Finding providers to care for these populations becomes of increasing importance, particularly in light of anticipated physician shortages (Peterson et al., 2012).

APRNs are frequently discussed as a solution to meeting these anticipated shortages (Auerbach et al., 2013; Robert Wood Johnson Foundation, 2013). Previous research has indicated that APRNs provide equivalent quality care compared with other health care providers, including physicians, in similar primary care practice settings (Lenz, Mundinger, Kane, Hopkins, & Lin, 2004; Mundinger et al., 2000; Naylor & Kurtzman, 2010; Newhouse et al., 2011). One of the issues that negatively affects APRN practice is the wide level of restriction placed on the practice, which varies across states because of differences in state licensing laws; some areas are quite independent, whereas others are very restrictive (O'Grady, 2008; Robert Wood Johnson Foundation, 2013). Oliver et al. (2014) found a statistically significant relationship between improved overall state health outcomes in states where full practice for NPs is allowed. The regulation of APRN practice varies greatly from state to state (IOM, 2011). Safriet (1992), in a classic legal article, recognized the need for the removal of regulations that restrict APRN practice. She argued that such barriers do not protect the health of the public but instead hinder access to the high-quality, cost-effective care provided by APRNs.

Recently, the calls for the removal of regulatory restrictions on APRN practice have become more frequent. The APRN Joint Dialog Group (2008) developed a model of APRN regulation that promotes standardizing laws and reducing practice barriers across states; this model is promoted by the National Council of State Boards of Nursing. The IOM (2011) recognizes that changes must be made in scope of practice laws to allow APRNs to practice to the full extent of their education. The National Governor's Association Center for Best Practices (2012) calls for reducing scope of practice restrictions as a method of encouraging more NPs to work in primary health care. Dower, Moore, and Langelier (2013) argue that scope of practice regulations need to be reformed for all health care professions in order to have a more efficient and effective health workforce. Such regulations should be flexible, acknowledge professional competence, and recognize the overlap among the scopes of practice of different health professions.

The medical profession counters that reducing APRN practice regulation is not safe. Because of this stated concern, the American Medical Association (2009) developed an information module to assist physicians in challenging attempts to reform scope of practice regulations for NPs. The American Academy of Family Physicians (2012) stated that the quality of health care would decrease if NPs were allowed to lead a patient-centered medical home. Donelan, DesRoches, Dittus, and Buerhaus (2013) found that when asked if physicians provided higher quality of care in the primary care setting, 66% of physicians concurred, whereas 75% of NPs did not. Research evidence does not support the medical community's concern of unsafe practice by APRNs (Lenz et al., 2004; Mundinger et al., 2000; Naylor & Kurtzman, 2010; Newhouse et al., 2011).

As early as 1986, a review of the research showed that the quality of care by APRNs was comparable with that of physicians and that APRNs were better with patient communication and management of chronic health conditions (U.S. Congress Office of Technology Assessment, 1986). Several systematic reviews published since then have supported this early finding. Two separate systematic reviews covering literature